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**NEW SOURCE REVIEW PERMIT**  
**Issued under 20.2.72 NMAC**

Certified Mail No: DRAFT PERMIT  
Return Receipt Requested

**NSR Permit No:** 1554-M1  
**Facility Name:** Rio Grande Generating Station

**Permittee Name:** El Paso Electric Company  
**Mailing Address:** PO Box 982  
El Paso TX 79901

**TEMPO/IDEA ID No:** 122-PRN20100001  
**AIRS No:** 35 0130002  
**Permitting Action:** New NSR Permit

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**Date**

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TABLE OF CONTENTS

Part A FACILITY SPECIFIC REQUIREMENTS ..... 3

    A100 Introduction..... 3

    A101 Permit Duration (expiration)..... 3

    A102 Facility: Description..... 3

    A103 Facility: Applicable Regulations..... 4

    A104 Facility: Regulated Sources..... 5

    A105 Facility: Control Equipment..... 5

    A106 Facility: Allowable Emissions ..... 6

    A107 Facility Allowable Startup, Shutdown, and Maintenance (SSM) Emissions ..... 6

    A108 Facility: Hours of Operation ..... 6

    A109 Facility: Reporting Schedules ..... 7

    A110 Facility: Fuel Sulfur Requirements – See A401.F ..... 7

    A111 Facility: 20.2.61 NMAC Opacity – See A401.I..... 7

    A112 Alternative Operating Scenario – Not Required ..... 7

    A113 Compliance Plan – Not Required ..... 7

    A114 Reducing Facility Emissions – Not Required ..... 7

    A115 Revision to Part B General Conditions ..... 7

EQUIPMENT SPECIFIC REQUIREMENTS ..... 7

    A200 Oil and Gas Industry ..... 7

    A300 Construction Industry..... 7

Power Generation Industry ..... 7

    A400 Power Generation Industry ..... 7

    A401 Turbine..... 7

    A402 Boilers ..... 13

    A403 Engines – Not Required ..... 15

    A404 Heaters – Not Required..... 15

    A405 Cooling Tower ..... 15

Part B GENERAL CONDITIONS..... 16

    B100 Introduction..... 16

    B101 Legal..... 16

    B102 Authority..... 17

    B103 Annual Fee ..... 17

    B104 Appeal Procedures ..... 18

    B105 Submittal of Reports and Certifications..... 18

    B106 NSPS and/or MACT Startup, Shutdown, and Malfunction Operations ..... 18

    B107 Startup, Shutdown, and Maintenance Operations ..... 19

    B108 General Monitoring Requirements..... 19

    B109 General Recordkeeping Requirements..... 20

    B110 General Reporting Requirements..... 21

    B111 General Testing Requirements..... 22

    B112 Compliance ..... 25

B113 Permit Cancellation and Revocation..... 26  
 B114 Notification to Subsequent Owners ..... 26  
 B115 Asbestos Demolition..... 27  
 Part C MISCELLANEOUS ..... 27  
 C100 Supporting On-Line Documents ..... 27  
 C101 Definitions..... 27  
 C102 Acronyms ..... 29

**PART A FACILITY SPECIFIC REQUIREMENTS**

**A100 Introduction**

This is the first 20.2.72 NMAC New Source Review (NSR) Permit issued for this facility.

**A101 Permit Duration (expiration)**

- A. The term of this permit is permanent unless withdrawn or cancelled by the Department or cancelled by the permittee in writing.

**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 at UTM Zone 13, UTM Easting 353.52 km, UTM Northing 3,219.66 km, in Township 29S, Range 4E, Sections 8 and 9, Sunland Park, Doña Ana County, New Mexico.
- C. This modification consists of adding one simple cycle natural gas fueled turbine and generator, one cooling tower, a catalytic oxidizer, and a selective catalytic reduction system. This description is for informational purposes only and is not enforceable.
- D. Table 102.A and Table 102.B show the total potential emissions from the entire facility for information only, not an enforceable condition, excluding exempt sources or activities.

**Table 102.A: Total Potential Criteria Pollutant Emissions from Entire Facility**

Pollutant	Emissions (tons per year)
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Pollutant	Emissions (tons per year)
Nitrogen Oxides (NOx)	3130.0
Carbon Monoxide (CO)	1108.0
Volatile Organic Compounds (VOC)	78.7
Sulfur Dioxide (SO <sub>2</sub> )	1.6
Total Suspended Particulates (TSP)	166.2
Particulate Matter less than 10 microns (PM <sub>10</sub> )	91.3
Particulate Matter less than 2.5 microns (PM <sub>2.5</sub> )	86.4

**Table 102.B: Total Potential HAPS and NM TAPs that exceed 1.0 ton per year**

Pollutant	Emissions
Chlorine	2.5 tpy
Total HAPs	4.6 tpy
Ammonia (NM TAP)	6.2 pph / 25.1 tpy

The total HAP emissions may not agree with the sum of individual HAPs because only individual HAPs greater than 1.0 ton per year are listed here.

**A103 Facility: Applicable Regulations**

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

**Table 103.A: Applicable Requirements for New Units GT-9, CT-9 and FUG 9**

Applicable Requirements	Federally Enforceable	Entire Facility	Unit No.
20.2.1 NMAC General Provisions	X	X	
20.2.3 NMAC Ambient Air Quality Standards	X	X	
20.2.7 NMAC Excess Emissions	X	X	
20.2.61 NMAC Smoke and Visible Emissions	X		GT-9
20.2.70 NMAC Operating Permits	X	X	
20.2.71 NMAC Operating Permit Emission Fees	X	X	
20.2.72 NMAC Construction Permit	X		GT-9, CT-9, FUG-9
20.2.73 NMAC Notice of Intent and Emissions Inventory Requirements	X	X	
20.2.75 NMAC Construction Permit Fees	X		GT-9, CT-9, FUG-9
20.2.77 NMAC New Source Performance	X		GT-9
20.2.84 Acid Rain Permits	X		GT-9
20.2.300 Reporting of Greenhouse Gas Emissions		X	

Applicable Requirements	Federally Enforceable	Entire Facility	Unit No.
40 CFR 50 National Ambient Air Quality Standards	X	X	
40 CFR 60 Subpart A General Provisions	X		GT-9
40 CFR 60 Subpart KKKK	X		GT-9
40 CFR 72 Acid Rain Program	X		GT-9

**A104 Facility: Regulated Sources**

- A. Table 104.A lists emission units authorized for this facility that are subject to NSR Permit No. 1554M1. Emission units that were identified as exempt activities and/or equipment (as defined in 20.2.72.202 NMAC) not regulated pursuant to the Act are not included.

**Table 104.A: Regulated Source List**

Unit No.	Source Description	Make Model	Serial No.	Capacity	Construction Date
EPN-3	Boiler 6 <sup>1</sup>	Babcock & Wilcox BW CNRB 465	19119	610 MMBtu/hr	January 1, 1957
EPN-1	Boiler 8 <sup>2</sup>	Babcock & Wilcox BW CNRB 2985	22896	1535 MMBtu/hr	January 10, 1968
GT-9	Turbine 9	GE LMS 100 PA	TBD	142,576 hp	TBD
CT-9	Cooling Tower 9	TBD	TBD	6900 gpm	TBD
FUG-9	Piping Fugitives (Turbine)	N/A	N/A	N/A	N/A

1. Boiler 6 is included in the source list because annual emission limits are required for PM<sub>2.5</sub> emissions.

2. Boiler 8 is included in the source list because hourly emission limits are required for NO<sub>2</sub>

- B. To be determined (TBD) values in Table 104.A shall be reported to the Department's Compliance and Enforcement Section within 45 days of initial startup. This condition extends the deadline to submit the serial number for GT-9 and CT-9 from 15 days, as required in Condition B110.A(2), to 45 days. All other requirements in Condition B110 apply.

**A105 Facility: Control Equipment**

- A. Table 105 lists all the pollution control equipment required for Turbine GT-9.

**Table 105: Control Equipment List:**

Control Equipment Unit No.	Control Description	Pollutant being controlled	Control for Unit Number <sup>1</sup>
Turbine 9	Selective Catalytic Reduction (SCR)	NOx	GT-9

Turbine 9	Oxidation Catalyst	CO and VOCs (at low load)	GT-9
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1. Control for unit number refers to a unit number from the Regulated Equipment List

**A106 Facility: Allowable Emissions**

A. The following section lists the allowable emission limits. (40 CFR 50, 40 CFR 60, Subparts A and KKKK, 20.2.72.210.A and B.1 NMAC).

**Table 106: Allowable Emissions**

Unit No.	NO <sub>x</sub> <sup>1</sup> pph	NO <sub>x</sub> tpy	CO pph	CO tpy	VOC pph	VOC tpy	NH <sub>3</sub> <sup>2</sup> pph	NH <sub>3</sub> tpy	TSP pph	TSP tpy	PM <sub>10</sub> pph	PM <sub>10</sub> tpy	PM <sub>2.5</sub> pph	PM <sub>2.5</sub> tpy
<sup>3</sup> EPN-1	415.0/ 460.5	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>
EPN-3	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	n/a <sup>4</sup>	2.0
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	3.6	14.48
CT-9	- <sup>5</sup>	-	-	-	-	-	-	-	3.3	1.4	0.02	0.09	0.00004	0.002
Total <sup>6</sup>		39.1		94.1		9.2		24.4		15.9		14.6		16.5

- 1. Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO<sub>2</sub>
- 2. NH<sub>3</sub> means ammonia which is a New Mexico Toxic Air Pollutant (NM TAP).
- 3. EPN-1 (Boiler 8) emission rate of 460.5 pph NO<sub>x</sub> is limited to no more than 7 hours per 24-hour period. Each 24-hour period starts at 12 midnight
- 4. Enforceable emission limits for these pollutants are not applicable to this NSR permit.
- 5. “-” indicates the application represented emissions of this pollutant are not expected.
- 6. Totals are for information and are not enforceable conditions.

- B. Ammonia slip from Turbine GT-9 shall be limited to no more than 5.0 ppmvd at 15% oxygen on a dry basis.
- C. 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)

**A107 Facility Allowable Startup, Shutdown, and Maintenance (SSM) Emissions**

- A. Allowable SSM emission limits for routine startup and shutdown operations are included in the allowable emissions in Table 106. The permittee shall maintain records in accordance with Condition B109.C.

**A108 Facility: Hours of Operation**

- A. This facility is authorized to operate 24 hours per day and 7 days per week.

**A109 Facility: Reporting Schedules**

A. As required by the conditions of this permit.

**A110 Facility: Fuel Sulfur Requirements – See A401.F**

**A111 Facility: 20.2.61 NMAC Opacity – See A401.I**

**A112 Alternative Operating Scenario – Not Required**

**A113 Compliance Plan – Not Required**

**A114 Reducing Facility Emissions – Not Required**

**A115 Revision to Part B General Conditions**

A. B111(7) and B111(8) shall be required only when the Department requests a sampling line be installed and within 30 days of the request.

**EQUIPMENT SPECIFIC REQUIREMENTS**

**A200 Oil and Gas Industry**

**A300 Construction Industry**

**POWER GENERATION INDUSTRY**

**A400 Power Generation Industry**

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

**A401 Turbine**

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. Compliance with the allowable emission limits shall be determined with initial compliance tests, with the

data from the facility's NO<sub>x</sub> 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 NO<sub>x</sub> and CO emission limits demonstrates compliance with the VOC emission limits.

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

**Requirement:** At all times Turbine 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.

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

**Monitoring:** N/A

**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. Turbine NO<sub>x</sub> Control & NH<sub>3</sub> Control – Selective Catalytic Reduction

**Requirement:** At all times Turbine GT-9 is operating NO<sub>x</sub> 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 NO<sub>x</sub> 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 and Condition A106.B shall be met by operating the SCR system within temperature ranges and ammonia injection rates as recommended by the SCR manufacturer or supplier. The 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 NO<sub>x</sub> and excess ammonia slip shall be with a

<p>programmable logic control (PLC) system.</p> <p>The permittee shall maintain the SCR system according to manufacturer or supplier recommended maintenance and replacement schedule.</p>
<p><b>Monitoring:</b> The permittee shall monitor the SCR catalyst operating temperature and ammonia injection rates.</p>
<p><b>Recordkeeping:</b> 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.</p> <p>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.B.</p> <p>Records shall be kept of a current and valid purchase contract or receipts of purchase specifying the percent aqueous ammonia delivered to the facility.</p>
<p><b>Reporting:</b> The permittee shall report according to Section B110.</p>

D. Continuous Emissions Monitoring System (CEMS) – Turbine NO<sub>x</sub> and CO Emissions Monitoring

<p><b>Requirement:</b> To demonstrate compliance with the allowable NO<sub>x</sub> and CO emission limits in Table 106, Turbine GT-9's NO<sub>x</sub> and CO exhaust stack emissions shall be monitored and recorded with NO<sub>x</sub> 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.</p> <p><b>NO<sub>x</sub> CEMS -</b> The NO<sub>x</sub> 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.</p> <p><b>CO CEMS –</b></p> <ul style="list-style-type: none"> <li>• Initial certification of the CO CEMS shall be performed according to the procedures in 40 CFR 60, Appendix B – <u>Performance Specifications</u>.</li> <li>• Periodic Cylinder Gas Audits (CGAs) of the CO CEMS shall be performed according to procedures in 40 CFR 60, Appendix F - <u>Quality Assurance Requirements for Continuous Emissions Monitoring Systems</u>. The annual RATA test found in 40 CFR 60, Appendix F is not required.</li> </ul>
<p><b>Monitoring:</b> N/A</p>
<p><b>Recordkeeping:</b> The reported output of NO<sub>x</sub> and CO CEMS data shall be in parts per million by volume dry (ppmvd) of NO<sub>x</sub> corrected to 15% oxygen and at standard conditions; and in lb/hr of</p>

NO<sub>x</sub> and CO. Additionally, all raw NO<sub>x</sub> and CO CEMS data shall be retained according to B109.B.

Using actual operating hours and lb/hr NO<sub>x</sub> and CO emission rates recorded by CEMS, the permittee shall record the ton per month NO<sub>x</sub> and CO emission rates and a monthly, rolling 12-month total of ton per year NO<sub>x</sub> 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 NO<sub>x</sub> 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

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

**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.

**Monitoring:** None

**Recordkeeping:** The permittee shall demonstrate compliance with the natural gas fuel limit on total sulfur content by maintaining records of a current, valid purchase contract, tariff sheet or transportation contract for the fuel, or fuel gas analysis, specifying the allowable limit or less. If fuel gas analysis is used, the analysis shall be no older than one year.

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

G. Turbine GT-9 PM Limits

**Requirement:** The permittee shall meet the TSP, PM10, and PM2.5 (PM) emission limits in Table 106. Compliance with these limits shall be determined with lb/hr stack test results required by Condition A401.H, heat rate monitoring data (MMBtu/time), and the PM emission factor (lb/MMBtu) determined through the PM stack testing.

Until an emission factor is determined through testing, the permittee shall use 0.0040 lb/MMBtu to calculate PM tpy emissions. Once the emission factor is determined through testing, the permittee

shall 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 will be compared with the PM emission limits to determine compliance.

**Monitoring:**

**Heat Rate**

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

**PM Emission Factors**

During EPA Methods 5, 201A, and 202 testing required by Condition A401.H, the hourly heat rate (MMBtu/hr) of Turbine GT-9 shall be monitored with the 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 shall be averaged to determine final lb/hr and MMBtu/hr rates.
- These results shall be used to calculate actual TSP, PM10, and PM2.5 emission factors in lb/MMBtu using the following equation:  $\text{lb/hr} \times \text{hr/MMBtu} = \text{lb/MMBtu}$ .
- Records shall be kept of the lb/hr rates for TSP, PM10, and PM2.5 emissions measured through A401.H 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 TSP, 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 TSP, PM10, and PM2.5 (PM) using the monthly heat rate data (MMBtu/mo) and the PM emission factors (lb/MMBtu) determined through stack testing.
- The following equation shall be used to calculate actual ton/month PM emission rates:  $\text{lb/MMBtu} \times \text{MMBtu/mo} \times 1 \text{ ton}/2000 \text{ lbs} = \text{ton/month PM}$ .
- A monthly, 12-month rolling total of TSP, 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.

**H. Initial Compliance Tests Turbine GT-9**

**Requirement:** The following Method tests are required for Turbine GT-9 to show compliance

<p>with the emission limits in Table 106.</p> <ul style="list-style-type: none"> <li>• NO<sub>x</sub>, CO, and TSP initial compliance tests shall be completed using their corresponding EPA Methods found in Condition B111.B.</li> <li>• Initial compliance tests for PM<sub>2.5</sub> and PM<sub>10</sub> filterable particulate matter shall be completed with EPA Method 201A and for condensable particulate matter with EPA Method 202 as required by Condition B111.B. Test results of filterable particulate matter for each size fraction and condensable particulate matter shall be combined to verify compliance with TSP, PM<sub>10</sub>, and PM<sub>2.5</sub> limits. All condensable particulate matter is assumed to be 2.5 microns in diameter or less (PM<sub>2.5</sub>)</li> <li>• Initial compliance testing for Turbine GT-9 shall be performed no later than 180 days after initial startup of the Turbine.</li> <li>• Each initial compliance test run for EPA Test Methods 201A and 202 shall be completed with an extended sampling period of no less than 2 hours.</li> </ul> <p>All compliance tests shall be conducted according to Section B111 unless otherwise specified in this condition.</p>
<p><b>Monitoring:</b> Monitoring shall be completed according to Conditions A401.B and A401.G.</p>
<p><b>Recordkeeping:</b> The permittee shall comply with the recordkeeping requirements in Condition B111.D(3).</p>
<p><b>Reporting:</b> The permittee shall comply with the reporting requirements in Conditions B105.A and B110.D.</p>

I. 20.2.61 NMAC

<p><b>Requirement:</b> Turbine GT-9 exhaust stack emissions shall not exceed 20% opacity.</p>
<p><b>Monitoring:</b> Use of natural gas fuel constitutes compliance with 20.2.61 NMAC unless opacity exceeds 20% averaged over a 10-minute period. When any visible emissions are observed during steady state operation, opacity shall be measured over a 10-minute period, in accordance with the procedures at 40 CFR 60, Appendix A, Method 9 as required by 20.2.61.114 NMAC</p>
<p><b>Recordkeeping:</b> The permittee shall record dates of any opacity measures and the corresponding opacity readings.</p>
<p><b>Reporting:</b> The permittee shall report according to Section B110.</p>

J. 40 CFR 60, Subpart KKKK, Unit GT-9

<p><b>Requirement</b> 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.</p>
<p><b>Monitoring:</b> The permittee shall comply with all applicable monitoring and testing requirements, including but not limited to 40 CFR 60.4333.</p>
<p><b>Recordkeeping:</b> The permittee shall comply with all applicable recordkeeping requirements, including but not limited to 40 CFR 60.7.</p>
<p><b>Reporting:</b> The permittee shall comply with all applicable reporting requirements, including but not limited to 40 CFR 60.4375, 60.4395, and 60.7.</p>

**A402 Boilers**

**A. EPN-1 (Boiler 8) Pound Per Hour NOx Emission Limits**

<p><b>Requirement:</b> EPN-1 (Boiler 8) shall meet the NOx pound per hour emission limits in Table 106. 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.</p>
<p>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.</p>
<p><b>Monitoring:</b> NOx pph emissions shall be monitored with a CEMS.</p>
<p><b>Recordkeeping:</b> Records shall be kept of the following Boiler 8 information:</p> <ul style="list-style-type: none"> <li>• the CEMS NOx pph emissions during each hour of operation and</li> <li>• the total number of hours during each 24-hour period of pph emission rates above 415.0 pph.</li> </ul>
<p><b>Reporting:</b> The permittee shall report according to Section B110.</p>

**B. EPN-3 (Boiler 6) PM2.5 Limits**

<p><b>Requirement:</b> The deration of Boiler 6 and corresponding PM2.5 emission limit in Table 106 is effective 30 days before first fuel firing of Turbine GT-9.</p>
<p>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 stack testing required by Condition A402.C.</p>
<p>Until an emission factor is determined through testing, the permittee shall use 7.6 lb/MMBtu to calculate PM2.5 tpy emissions. Once the emission factor is determined through testing, the permittee shall 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.</p>
<p><b>Monitoring:</b></p> <p><b>Heat Rate</b> 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 shall begin at least 30 days before first fuel firing of Turbine GT-9.</p> <p><b>PM Emission Factors</b> During EPA Methods 201A and 202 testing required by Condition A402.C, the hourly heat rate (MMBtu/hr) of Boiler 6 shall be monitored with the CEMS.</p>
<p><b>Recordkeeping:</b></p> <p><b>Monthly and Annual Heat Rate</b> 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 and</p>

shall begin 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 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:  $\text{lb/hr} \times \text{hr/MMBtu} = \text{lb/MMBtu}$ .
- Records shall be kept of the lb/hr rates for PM2.5 emissions measured through A402.C 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 PM recordkeeping is effective and shall begin 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.
- The following equation shall be used to calculate actual ton/month PM2.5 emission rates:  $\text{lb/MMBtu} \times \text{MMBtu/mo} \times 1 \text{ ton}/2000 \text{ lbs} = \text{ton/month PM2.5}$ .
- A monthly, 12-month rolling 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.

**C. Initial Compliance Tests EPN-3 (Boiler 6)**

**Requirement:** The following Method tests are required for Boiler 6 to show compliance with the emission limits in Table 106.

- Initial compliance tests for PM2.5 (Method 201A) and Condensable particulate matter (Method 202) shall be completed as required by Condition B111.B. Test results of filterable particulate matter for PM2.5 and condensable particulate matter shall be combined to verify compliance with the PM2.5 limit. All condensable particulate matter is assumed to be 2.5 microns in diameter or less (PM2.5).
- Initial compliance testing for Boiler 6 shall be performed no later than 180 days after first fuel firing of Turbine GT-9.

All compliance tests shall be conducted according to Section B111 unless otherwise specified in this condition.

**Monitoring:** Monitoring shall be completed according to Condition A402.B.

**Recordkeeping:** The permittee shall comply with the recordkeeping requirements in Condition

B111.D(3).
<b>Reporting:</b> The permittee shall comply with the reporting requirements in Conditions B105.A and B110.D.

**A403 Engines – Not Required**

**A404 Heaters – Not Required**

**A405 Cooling Tower**

**A. CT-9 Cooling Tower Requirements**

<p><b>Requirement:</b> The permittee shall demonstrate compliance with Cooling Tower CT-9 allowable emissions in Table 106 by the following.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• The total dissolved solids (TDS) in CT-9’s water shall not exceed 9,000 ppmw.</li> <li>• The circulation rate of CT-9’s cooling water pumps shall not exceed 6,900 gallons per minute (gpm).</li> </ul>
<p><b>Monitoring:</b> The permittee shall monitor the following parameters during Cooling Tower CT-9 operation.</p> <ul style="list-style-type: none"> <li>• At least once per month, inspect to verify that the drift eliminator is in place and in good repair.</li> <li>• At least once per month, monitor the TDS of the cooling tower water.</li> <li>• At lease once each calendar day, monitor the circulation rate of the cooling water pumps.</li> </ul>
<p><b>Recordkeeping:</b> Records shall be kept of the following:</p> <ul style="list-style-type: none"> <li>• the monthly inspections of the drift eliminator including any repairs or maintenance;</li> <li>• the manufacturer’s design specifications and manufacturer’s recommended, or equivalent, maintenance procedures; and</li> <li>• the monthly cooling water TDS.</li> </ul> <p>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.</p>
<p><b>Reporting:</b> The permittee shall report according to Section B110.</p>

**PART B GENERAL CONDITIONS**

**B100 Introduction**

- A. The Department has reviewed the permit application for the proposed construction/modification/revision and has determined that the provisions of the Act and ambient air quality standards will be met. Conditions have been imposed in this permit to assure continued compliance. 20.2.72.210.D NMAC, states that any term or condition imposed by the Department on a permit is enforceable to the same extent as a regulation of the Environmental Improvement Board.

**B101 Legal**

- A. The contents of a permit application specifically identified by the Department shall become the terms and conditions of the permit or permit revision. Unless modified by conditions of this permit, the permittee shall construct or modify and operate the Facility in accordance with all representations of the application and supplemental submittals that the Department relied upon to determine compliance with applicable regulations and ambient air quality standards. If the Department relied on air quality modeling to issue this permit, any change in the parameters used for this modeling shall be submitted to the Department for review. Upon the Department's request, the permittee shall submit additional modeling for review by the Department. Results of that review may require a permit modification. (20.2.72.210.A NMAC)
- B. Any future physical changes, changes in the method of operation or changes in restricted area may constitute a modification as defined by 20.2.72 NMAC, Construction Permits. Unless the source or activity is exempt under 20.2.72.202 NMAC, no modification shall begin prior to issuance of a permit. (20.2.72 NMAC Sections 200.A.2 and E, and 210.B.4)
- C. Changes in plans, specifications, and other representations stated in the application documents shall not be made if they cause a change in the method of control of emissions or in the character of emissions, will increase the discharge of emissions or affect modeling results. Any such proposed changes shall be submitted as a revision or modification. (20.2.72 NMAC Sections 200.A.2 and E, and 210.B.4)
- D. The permittee shall establish and maintain the property's Restricted Area, as identified in the most recent modeling plan for which the permittee received Department approval. (20.2.72 NMAC Sections 200.A.2 and E, and 210.B.4)

- E. Applications for permit revisions and modifications shall be submitted to:

Program Manager, Permits Section  
New Mexico Environment Department  
Air Quality Bureau  
1301 Siler Road, Building B  
Santa Fe, New Mexico 87507-3113

- F. Pursuant to 20.2.72.210 NMAC, at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate the source including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. (20.2.72.210.A, 20.2.72.210.B, 20.2.72.210.C, 20.2.72.210.E NMAC)

**B102 Authority**

- A. This permit is issued pursuant to the Air Quality Control Act (Act) and regulations adopted pursuant to the Act including Title 20, Chapter 2, Part 72 of the New Mexico Administrative Code (NMAC), (20.2.72 NMAC), Construction Permits and is enforceable pursuant to the Act and the air quality control regulations applicable to this source.
- B. The Department is the Administrator for 40 CFR Parts 60, 61, and 63 pursuant to the delegation 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 Department will assess an annual fee for this Facility. The regulation 20.2.75 NMAC set the fee amount at \$1,500 through 2004 and requires it to be adjusted annually for the Consumer Price Index on January 1. The current fee amount is available by contacting the Department or can be found on the Department's website. The AQB will invoice the permittee for the annual fee amount at the beginning of each calendar year. This fee does not apply to sources which are assessed an annual fee in accordance with 20.2.71 NMAC. For sources that satisfy the definition of "small business" in 20.2.75.7.F NMAC, this annual fee will be divided by two. (20.2.75.11 NMAC)
- B. All fees shall be remitted in the form of a corporate check, certified check, or money order made payable to the "NM Environment Department, AQB" mailed to the address shown on the invoice and shall be accompanied by the remittance slip attached to the invoice.

**B104 Appeal Procedures**

- 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 hearing before the Environmental Improvement Board. The petition shall be made in writing to the Environmental Improvement 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 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: (20.2.72.207.F NMAC)

Secretary, New Mexico Environmental Improvement Board  
1190 St. Francis Drive, Runnels Bldg. Rm. N2153  
P.O. Box 5469  
Santa Fe, New Mexico 87502

**B105 Submittal of Reports and Certifications**

- A. Stack Test Protocols and Stack Test Reports shall be submitted electronically to [Stacktest.AQB@state.nm.us](mailto:Stacktest.AQB@state.nm.us).
- B. Excess Emission Reports shall be submitted electronically to [eereports.aqb@state.nm.us](mailto:eereports.aqb@state.nm.us). (20.2.7.110 NMAC)
- C. Regularly scheduled reports shall be submitted to:

Manager, Compliance and Enforcement Section  
New Mexico Environment Department  
Air Quality Bureau  
1301 Siler Road, Building B  
Santa Fe, New Mexico 87507-3113

**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), unless specifically exempted in the applicable subpart.

- B. If a facility is subject to a NSPS standard in 40 CFR 60, then in accordance with 40 CFR 60.8(c), emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction shall not 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.

**B107 Startup, Shutdown, and Maintenance Operations**

- A. The permittee shall operate in accordance with the procedures set forth in the plan to minimize emissions during routine or predictable start up, shut down, and scheduled maintenance (SSM work practice plan), except for operations or equipment subject to Section B106 above. (20.2.7.14.A NMAC)

**B108 General Monitoring Requirements**

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

- A. The following monitoring 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.
- B. If the emission unit is shutdown at the time when periodic monitoring is due to be accomplished, the permittee is not required to restart the unit for the sole purpose of performing 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 accomplishing the tests. Upon recommencing operation, the permittee shall submit any pertinent pre-test notification requirements set forth in the current version of the Department's Standard Operating Procedures For Use Of Portable Analyzers in Performance Test, and shall accomplish the monitoring.

- C. The requirement for monitoring during any monitoring period is based on the percentage of time that the unit has operated. However, to invoke monitoring 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) A minimum of one of each type of monitoring activity shall be conducted during any five-year period for sources not subject to 20.2.70 NMAC, Operating Permits.
- D. 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.
- E. 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 re-imposed if it is deemed necessary by the Department to determine whether the source is in compliance with applicable regulations or permit conditions.
- F. Monitoring shall become effective 120 days after the date of permit issuance if the monitoring is new or in addition to monitoring imposed by an existing applicable requirement. Any pre-existing monitoring requirements incorporated in this permit shall continue to be in force from the date of permit issuance.

### **B109 General Recordkeeping Requirements**

- A. The permittee shall maintain records to assure and verify compliance with the terms and conditions of this permit and any other applicable requirements that become effective after permit issuance. The minimum information to be included in these records is:

- (1) equipment identification (include make, model and serial number for all tested equipment and emission controls);
  - (2) date(s) and time(s) of sampling or measurements;
  - (3) date(s) analyses were performed;
  - (4) the qualified entity that performed the analyses;
  - (5) analytical or test methods used;
  - (6) results of analyses or tests; and
  - (7) operating conditions existing at the time of sampling or measurement.
- B. Except as provided in the Specific Conditions, records shall be maintained on-site for a minimum of two (2) years from the time of recording and shall be made available to Department personnel upon request. Records for unmanned sites may be kept at the nearest company office. Sources subject to 20.2.70 NMAC "Operating Permits" shall maintain records on-site for a minimum of five (5) years from the time of recording.
- C. Routine and predictable emissions during startup, shutdown, and scheduled maintenance (SSM):
- (1) The permittee shall keep records of all events subject to the plan to minimize emissions during routine or predictable SSM. (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, and a description 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 occurs at an established frequency pursuant to a written protocol published by the manufacturer or other reliable source.

**B110 General Reporting Requirements**  
(20.2.72 NMAC Sections 210 and 212)

- A. Records and reports shall be maintained on-site unless specifically required to be submitted to the Department or EPA by another condition of this permit or by a state or federal regulation. Records for unmanned sites may be kept at the nearest company office.
- B. The permittee shall notify the Department's Compliance Reporting Section using the current Submittal Form posted to NMED's Air Quality web site under Compliance and Enforcement/Submittal Forms in writing of, or provide the Department with (20.2.72.212.A and B):

- (1) the anticipated date of initial startup of each new or modified source not less than thirty (30) days prior to the date. Actual startup shall not occur earlier than the permit issuance date;
  - (2) after receiving authority to construct, the equipment serial number as provided by the manufacturer or permanently affixed if shop-built and the actual date of initial startup of each new or modified source within fifteen (15) days after the startup date; and
  - (3) the date when each new or modified emission source reaches the maximum production rate at which it will operate within fifteen (15) days after that date.
- C. The permittee shall notify the Department's Permitting Program Manager, in writing of, or provide the Department with (20.2.72.212.C and D):
- (1) any change of operators or any equipment substitutions within fifteen (15) days of such change;
  - (2) any necessary update or correction no more than sixty (60) days after the operator knows or should have known of the condition necessitating the update or correction of the permit.
- D. 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.
- E. The permittee shall submit reports of excess emissions in accordance with 20.2.7.110.A NMAC.

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

- A. Compliance Tests
- (1) Compliance test requirements from previous permits (if any) are still in effect, unless the tests have been satisfactorily completed. Compliance tests may be re-imposed 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) 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 the tests must

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

- (3) Unless otherwise indicated by Specific Conditions or regulatory requirements, 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, subject to the approval of the Department.
- (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.
- (7) Pursuant to 20.2.72.210.C NMAC, for combustion sources with stacks, the permittee shall also provide a one-quarter (1/4) inch stainless steel sampling line adjacent to the sampling ports and extending down to within four (4) feet above ground level to provide access for future audits. The line shall extend into the stack a distance of 1/4 the stack diameter, but not less than one inch from the stack wall. The sampling line shall be maintained clear of blockage at all times. This line shall be in place at the time of any required compliance tests. For any source for which compliance tests are not required or for previously existing sources this line shall be installed no later than one hundred and eighty (180) days from the date of this permit.
- (8) As an alternative, the permittee may provide a portable sampling line that is readily available which allows the Department to safely obtain representative stack gas samples at the time of compliance audits or site inspections.
- (9) The physical configuration of the Facility shall conform to the emissions testing requirements of 20.2.72.210.C NMAC and of 40 CFR 60.8(e), which is imposed under the authority of 20.2.72.210.C.4 NMAC.

**B. EPA Reference Method Tests**

- (1) All compliance tests required by this permit, unless otherwise specified by Specific Conditions of 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 filterable TSP
  - (c) Method 6C and 19 for SO<sub>2</sub>
  - (d) Method 7E for NO<sub>x</sub> (test results shall be expressed as nitrogen dioxide (NO<sub>2</sub>) using a molecular weight of 46 lb/lb-mol in all calculations (each ppm of NO/NO<sub>2</sub> is equivalent to 1.194 x 10<sup>-7</sup> lb/SCF)
  - (e) Method 9 for opacity
  - (f) Method 10 for CO
  - (g) Method 19 may be used in lieu of Methods 1-4 for stack gas flowrate upon approval of the Department. A justification for this proposal must be provided along with a contemporaneous fuel gas analysis (preferably on the day of the test) and a recent fuel flow meter calibration certificate (within the most recent quarter).
  - (h) Method 7E or 20 for Turbines per 60.335 or 60.4400
  - (i) Method 29 for Metals
  - (j) Method 201A for filterable PM<sub>2.5</sub> and PM<sub>10</sub> fractions
  - (k) Method 202 for condensable PM
  - (l) Method 320 for organic Hazardous Air Pollutants (HAPs)
  - (m) Method 25A for VOC reduction efficiency
- (2) Alternative test method(s) may be used if the Department approves the change

C. Portable Analyzer Requirements

- (1) The permittee shall follow the *SOP for Use of Portable Analyzers in Performance Tests* posted to NMED's Air Quality web site under Compliance and Enforcement/Testing.
- (2) A portable analyzer that is used for periodic emissions tests must meet the requirements of ASTM D 6522 – 00. However, if a facility has met a previously approved Department criterion for portable analyzers, the analyzer may be used until it is replaced.

- (3) The portable emissions analyzer shall be setup and operated in accordance with the manufacturer's instructions, with the requirements of ASTM D-6522-00, or with the criterion of an analyzer previously approved by the Department.
- (4) During emissions tests, pollutant, O<sub>2</sub> concentration and fuel flow rate shall be monitored and recorded. This information shall be included with the test report furnished to the Department.
- (5) Pollutant emission rate shall be calculated in accordance with 40 CFR 60, Appendix A, Method 19 utilizing fuel flow rate (scf) and fuel heating value (Btu/scf) obtained during the test.

D. Test Procedures:

- (1) The permittee shall notify 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.
- (2) 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.
- (3) 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.
- (4) 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. Sample ports of a size compatible with the test methods shall be located on the stack with the provisions of EPA Method 1 of 40 CFR 60, Appendix A. The stack shall be of sufficient height and diameter so that a representative test of the emissions can be performed in accordance with EPA Method 1.
- (5) Where necessary to prevent cyclonic flow in the stack, flow straighteners shall be installed.

**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 the 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. (20.2.72.210.B.4 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.

#### **B113 Permit Cancellation and Revocation**

- A. The Department may revoke this permit if the applicant or permittee has knowingly and willfully misrepresented a material fact in the application for the permit. Revocation will be made in writing, and an administrative appeal may be taken to the Secretary of the Department within thirty (30) days. Appeals will be handled in accordance with the Department's Rules Governing Appeals From Compliance Orders.
- B. The Department shall automatically cancel any permit for any source which ceases operation for five (5) years or more, or permanently. Reactivation of any source after the five (5) year period shall require a new permit. (20.2.72 NMAC)
- C. The Department may cancel a permit if the construction or modification is not commenced within two (2) years from the date of issuance or if, during the construction or modification, work is suspended for a total of one (1) year. (20.2.72 NMAC)

#### **B114 Notification to Subsequent Owners**

- A. The permit and conditions apply in the event of any change in control or ownership of the Facility. No permit modification is required in such case. However, in the event of any such change in control or ownership, the permittee shall notify the succeeding owner of the permit and conditions and shall notify the Department's Program

Manager, Permits Section of the change in ownership within fifteen (15) days of that change. (20.2.72.212.C NMAC)

- B. Any new owner or operator shall notify the Department's Program Manager, Permits Section, within thirty (30) days of assuming ownership, of the new owner's or operator's name and address. (20.2.73.200.E.3 NMAC)

**B115 Asbestos Demolition**

- A. Before any asbestos demolition or renovation work, the permittee shall determine whether 40 CFR 61 Subpart M, National Emissions Standards for Asbestos applies. If required, the permittee shall notify the Department's Program Manager, Compliance and Enforcement Section using forms furnished by the Department.

**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) Universal Stack Test Notification, Protocol and Report Form and Instructions
  - (3) SOP for Use of Portable Analyzers in Performance Tests

**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 <http://aa.usno.navy.mil/>. Alternatively, these times can be obtained from a Farmer's Almanac or from <http://www.almanac.com/rise/>).
- B. **"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 NMAC permitting actions.
- C. **"Fugitive Emission"** means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.

- D. **“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. Note; insignificant activities are only valid for 20.2.70 NMAC permitting actions.
- E. **“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 60.631)
- F. **“Natural Gas Liquids”** means the hydrocarbons, such as ethane, propane, butane, and pentane, that are extracted from field gas. (40 CFR 60.631)
- G. **“National Ambient air Quality Standards”** means, unless otherwise modified, the primary (health-related) and secondary (welfare-based) federal ambient air quality standards promulgated by the US EPA pursuant to Section 109 of the Federal Act.
- H. **“Night”** is the time period between sunset and sunrise, 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 <http://aa.usno.navy.mil/>. Alternatively, these times can be obtained from a Farmer’s Almanac or from <http://www.almanac.com/rise/>).
- I. **“Night Operation or Operation at Night”** is operating a source of emissions at night.
- 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 NO<sub>x</sub> or NO<sub>x</sub>. (20.2.2 NMAC)
- K. **“NO<sub>x</sub>”** see NO<sub>2</sub>
- L. **“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.

- M. **"Restricted Area"** 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.
- N. **"Shutdown"** 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.
- O. **"Startup"** 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**

2SLB .....	2-Stroke Lean Burn
4SLB .....	4-Stroke Lean Burn
4SRB .....	4-Stroke Rich Burn
acfm.....	actual cubic feet per minute
AFR.....	air fuel ratio
AP-42 .....	EPA Air Pollutant Emission Factors
AQB .....	Air Quality Bureau
BTU.....	British thermal unit
CAA .....	Clean Air Act of 1970 and 1990 Amendments
CEM.....	Continuous Emissions Monitoring
cfh .....	cubic feet per hour
cfm .....	cubic feet per minute
CFR.....	Code of Federal Regulation
CO .....	carbon monoxides
EIB .....	Environmental Improvement Board
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
IC .....	Internal Combustion
KW/hr .....	kilowatts per hour
lb/hr.....	pounds per hour

lb/MMBtu .....	pounds per million British thermal unit
MACT .....	Maximum Achievable Control Technology
MMcf/hr .....	million cubic feet per hour
MMscf .....	million standard cubic feet
N/A.....	Not Applicable
NAAQS .....	National Ambient Air Quality Standards
NESHAP .....	National Emission Standards for Hazardous Air Pollutants
NG .....	Natural Gas
NMAAQs.....	New Mexico Ambient Air Quality Standards
NMAC.....	New Mexico Administrative Code
NMED .....	New Mexico Environment Department
NMSA .....	New Mexico Statutes Annotated
NO <sub>x</sub> .....	nitrogen oxides
NSCR.....	Non-selective Catalytic Reduction
NSPS .....	New Source Performance Standard
NSR.....	New Source Review
PEM .....	Parametric Emissions Monitoring
PM.....	particulate matter (equivalent to TSP, total suspended particulate)
PM <sub>10</sub> .....	particulate matter 10 microns and less in diameter
PM <sub>2.5</sub> .....	particulate matter 2.5 microns and less in diameter
pph.....	pounds per hour
ppmv .....	parts per million by volume
RICE .....	reciprocating internal combustion engine
rpm .....	revolutions per minute
scfm.....	standard cubic feet per minute
SO <sub>2</sub> .....	sulfur dioxide
TAP .....	Toxic Air Pollutant
TBD.....	to be determined
THC.....	Total Hydrocarbons
TSP.....	Total Suspended Particulates
tpy .....	tons per year
USEPA.....	United States Environmental Protection Agency
UTM.....	Universal Transverse Mercator Coordinate system
UTMH.....	Universal Transverse Mercator Horizontal
UTMV.....	Universal Transverse Mercator Vertical
VOC .....	volatile organic compounds