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**AIR QUALITY BUREAU  
NEW SOURCE REVIEW PERMIT**  
Issued under 20.2.72 NMAC

Certified Mail No: 7005 1820 0001 5773 4985

Return Receipt Requested

<b>NSR Permit No:</b>	PSD 3449-M2
<b>Facility Name:</b>	Hobbs Generating Station
<b>Facility Operator:</b>	CAMS (New Mexico) LLC
<b>Permittee Name:</b>	Lea Power Partners, LLC
<b>Mailing Address:</b>	98 N. Twombly Lane Hobbs, NM 88242
<b>TEMPO/IDEA ID No:</b>	25726-PRN20140001
<b>AIRS No:</b>	35-025-0341
<b>Permitting Action:</b>	Significant Permit Revision
<b>Source Classification:</b>	Major – TV, PSD w/BACT
<b>Facility Location:</b>	32°43'41.1" N and -103°18'34.6" W
<b>County:</b>	Lea

<b>Air Quality Bureau Contact</b>	Daren K. Zigich
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SEP 5 2014  
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Date

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**PART A      FACILITY SPECIFIC REQUIREMENTS****A100 Introduction**

- A. This permit PSD 3449-M2 supersedes all portions of Air Quality Permit PSD 3449-M1, issued September 23, 2011, except the portion requiring compliance tests. Compliance test conditions from previous permits, if not completed, are still in effect, in addition to compliance test requirements contained in this permit.
- B. The permit limits and conditions, identified below, are based on a Prevention of Significant Deterioration (PSD) BACT determination, and any change or revision of these emission limits or control methods must be applied for and accompanied by a corresponding re-evaluation of the original BACT determination in accordance with 20.2.74 NMAC.
- (1) For the turbines with duct burners, NO<sub>x</sub> emission limit of 2.0 ppmvd @ 15 percent O<sub>2</sub> averaged over 24 hours represents BACT.
  - (2) For the turbines with duct burners, 2 ppmvd CO @ 15 percent O<sub>2</sub> averaged over 1-hour and 1 ppmvd VOC @ 15 percent O<sub>2</sub> based on hourly rolling 24-hour average represents BACT.
  - (3) For the turbines with duct burners, BACT for SO<sub>2</sub> is the use of pipeline quality natural gas limited to a total sulfur content of 1.7 grains/100 dry standard cubic feet (dscf). For this permit, pipeline quality natural gas is defined as natural gas with a total sulfur content of 1.7 grains/100 dscf or less.
  - (4) For the turbines with duct burners, pipeline quality natural gas will be the only fuel used and is accepted as BACT for PM<sub>10</sub>.
  - (5) For the emergency generator and fire water pump, BACT is the utilization of engine design and good combustion practices through the use of turbocharging and aftercoolers.
  - (6) For the emergency generator and fire water pump, good combustion practices are BACT for CO and VOC emissions.
  - (7) For the emergency generator and fire water pump, BACT for SO<sub>2</sub> is the use of low sulfur diesel fuel.
  - (8) For the emergency generator, BACT for PM<sub>10</sub> was injection timing retardation, and lean burn combustion, utilization of engine design and good combustion practices through the use of turbocharging and aftercoolers.
  - (9) For the fire water pump, BACT for PM<sub>10</sub> was injection timing retardation, and lean burn combustion, utilization of engine design and good combustion practices through the use of turbocharging and aftercoolers.

- (10) For the Fuel Gas Heaters, BACT for NO<sub>x</sub> is the emission rate of 0.054 lb/mmBTU, which was the lowest emission rate from the RBLC database at the time.
- (11) For the Fuel Gas Heaters, BACT is the use of pipeline quality natural gas and utilizing good combustion control practices with a CO limit of 0.03 lb/mmBTU, and a VOC limit of 0.005 lb/mmBTU.
- (12) For the Fuel Gas Heaters, BACT will be minimizing SO<sub>2</sub> emissions by using pipeline quality natural gas and utilizing good combustion control practices, while meeting the SO<sub>2</sub> emission limit of 0.006 lb/mmBTU based on the AP-42 emission factor (based on natural gas with 1.7 grains/100 standard cubic feet, Section A110.A) and the SO<sub>2</sub> lb/hr emission limit in Table 106.B.
- (13) For the Fuel Gas Heaters, BACT will consist of minimizing PM/PM<sub>10</sub> emissions by using pipeline quality natural gas and utilizing good combustion control practices while meeting the PM/PM<sub>10</sub> emission limit of 0.007 lb/MMBtu, which was the lowest emission rate from the RBLC at the time.
- (14) For the Cooling Towers, BACT for PM<sub>10</sub> will be the use of a state of the art, high efficiency drift eliminator that will limit total drift to 0.001 percent of the circulated water flow.

**A101 Permit Duration (expiration)**

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

**A102 Facility: Description**

- A. This facility is a natural gas fueled, nominal 600 MW net output power plant with two advanced firing temperature, Mitsubishi 501F combustion turbine generators (CTGs), each provided with its own heat recovery steam generator (HRSG) including duct burners, a single condensing, reheat steam turbine generator (STG), and an air cooled condenser serving the STG. The plant generates electricity for sale to Southwestern Public Service Company, its successors or assigns.
- B. This facility is located approximately 9 miles west of Hobbs, New Mexico in Lea County.
- C. This modification consists of modifying both combustion gas turbines resulting in an increase in power output, fuel input and pound per hour emission rates for VOCs. The existing ppmv BACT limits for these units are not increasing. The permittee took a limit on annual operating hours to reduce ton per year emission rates to net out of and avoid PSD review of all pollutants. Existing ton per year emissions during routine and predictable startup, shutdown, or scheduled maintenance (SSM) are

increasing due to a clarification of emissions that occur during startup and during normal operation and a removal of a permit limit on the total number of startups allowed. However, the total ton per year emission limits for both steady state and SSM, combined are not PSD significant. SSM limits for NOx, CO and VOCs that were omitted from previous permits are added in this permit action. PM<sub>2.5</sub> mass emission limits are established since an ambient impact analysis for this pollutant was completed for the first time. This description of this modification is for informational purposes only and is not enforceable.

- D. [Table 102.A](#) and [Table 102.B](#) show the total potential emissions from this facility for information only, not an enforceable condition, excluding exempt sources or activities.

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

Pollutant	Emissions (tons per year)
Nitrogen Oxides (NOx)	184.5
Carbon Monoxide (CO)	280.9
Volatile Organic Compounds (VOC)	96.7
Sulfur Dioxide (SO <sub>2</sub> )	48.5
Total Suspended Particulates (TSP)	87.3
Particulate Matter less than 10 microns (PM <sub>10</sub> )	86.7
Particulate Matter less than 2.5 microns (PM <sub>2.5</sub> )	85.8
Greenhouse Gas (as CO <sub>2</sub> e)	1,897,124

\*Totals include emissions from SSM

**Table 102.B: Total Potential \*HAPS that exceed 1.0 ton per year**

Pollutant	Emissions (tons per year)
Formaldehyde	1.1
Ammonia (TAP)	281.3
Total HAPS**	3.2

\* HAP emissions are already included in the VOC emission total.

\*\* The total HAP emissions may not agree with the sum of individual HAPs because only individual HAPs greater than 1.0 tons 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**

Applicable Requirements	Federally Enforceable	Unit No.

<b>Applicable Requirements</b>	<b>Federally Enforceable</b>	<b>Unit No.</b>
20.2.1 NMAC General Provisions	X	Entire Facility
20.2.3 NMAC Ambient Air Quality Standards	X	Entire Facility
20.2.7 NMAC Excess Emissions	X	Entire Facility
20.2.33 NMAC Gas Burning Equipment – Nitrogen Dioxide	X	DB-1, DB-2
20.2.61 NMAC Smoke and Visible Emissions	X	HOBB-1, HOBB-2, DB-1, DB-2, FH-1, FH-2, FH-3, G-1 and FP-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
20.2.73 NMAC Notice of Intent and Emissions Inventory Requirements	X	Entire Facility
20.2.74 NMAC Prevention of Significant Deterioration	X	Entire Facility
20.2.75 NMAC Construction Permit Fees	X	Entire Facility
20.2.77 NMAC New Source Performance	X	HOBB-1, HOBB-2, DB-1, DB-2
20.2.84 NMAC Acid Rain Permit	X	HOBB-1, HOBB-2, DB-1, DB-2
40 CFR 50 National Ambient Air Quality Standards	X	Entire Facility
40 CFR 60, Subpart A, General Provisions	X	HOBB-1, HOBB-2, DB-1, DB-2, G-1
40 CFR 60, Subpart IIII, Stationary Compression Ignition Internal Combustion Engines	X	G-1
40 CFR 60, Subpart KKKK, Stationary Combustion Turbines	X	HOBB-1, HOBB-2, DB-1, DB-2
40 CFR 63, Subpart A, General Provisions	X	G-1, FP-1
40 CFR 63, Subpart A, and ZZZZ, Stationary Reciprocating Internal Combustion Engines (RICE MACT)	X	G-1, FP-1
40 CFR 72 Title IV Acid Rain	X	HOBB-1, HOBB-2, DB-1, DB-2
40 CFR 73 Title IV Acid Rain Sulfur Dioxide Allowance Emissions	X	HOBB-1, HOBB-2, DB-1, DB-2
40 CFR 75 Title IV Acid Rain Continuous Emission Monitoring	X	HOBB-1, HOBB-2, DB-1, DB-2

#### **A104 Facility: Regulated Sources**

- A. Table 104 lists the emission units authorized for this facility. Emission units identified as exempt activities (as defined in 20.2.72.202 NMAC) and/or equipment not regulated pursuant to the Act are not included.

**Table 104: Regulated Sources List**

Unit No.	Source Description	Make Model	Serial No.	Capacity	Manufacture Date
HOBB-1	Combustion Turbine (CT)	Mitsubishi Heavy Industries M501F-F4	T487	180 MW (1,697 MMBtu/hr (LHV) nominal)	2001, Modified March 2014
HOBB-2	Combustion Turbine (CT)	Mitsubishi Heavy Industries M501F-F4	T488	180 MW (1,697 MMBtu/hr (LHV) nominal)	2001, Modified March 2014
DB-1	Forney Duct Burner	Forney	913864	330 MM Btu/hr	2007
DB-2	Forney Duct Burner	Forney	913865	330 MM Btu/hr	2007
AC-1	Auxiliary Cooling Tower	Baltimore Air Cooler, FXV3-364-100	U014653101	9,500 gpm	2002
AC-2	Auxiliary Cooling Tower	Baltimore Air Cooler, FXV3-364-100	U014653102	9,500 gpm	2002
AC-3	Auxiliary Cooling Tower	Baltimore Air Cooler, FXV3-364-100	U014653103	9,500 gpm	2002
IC-1	Inlet Chiller	Baltimore Aircoil, 331132A	U014283404	5,898 gpm	2002
IC-2	Inlet Chiller	Baltimore Aircoil, 331132A	U014283405	5,898 gpm	2002
IC-3	Inlet Chiller	Baltimore Aircoil, 331132A	U014283406	5,898 gpm	2002
FH-1	Fuel Gas Heater	Rheos, 2400	A07193433	2.4 MMBtu/hr	2008
FH-2	Fuel Gas Heater	Rheos, 2400	A07193435	2.4 MMBtu/hr	2008
FH-3	Fuel Gas Heater	Rheos, 2400	A07193434	2.4 MMBtu/hr	2008
G-1	Standby Generator	Volvo Penta, D1641GEP	D16*021102 *C3*A	565kW	2008
FP-1	Diesel Fire Pump	Detroit Diesel, PDFFP06 FA-IIV	6VF-300006	443 Hp	2001

Unit No.	Source Description	Make Model	Serial No.	Capacity	Manufacture Date
SCR-1	Selective Catalytic Reduction	Peerless Manufacturing Co.	70418A	< 2.0 ppmvd @ 15% O <sub>2</sub> average over 24 hours	2008
SCR-2	Selective Catalytic Reduction	Peerless Manufacturing Co.	70418B	< 2.0 ppmvd @ 15% O <sub>2</sub> average over 24 hours	2008

1. All like-kind engine replacements must be evaluated for applicability to NSPS and NESHAP requirements.

- B. Stack Height of each CT/DB: To demonstrate compliance with 20.2.72.502 NMAC Table A–Non-carcinogens for ammonia, and in conjunction with Table-C Stack Height Correction Factor, the height of each CT/DB stack shall be no less than 165 feet above ground.
- C. All equipment, including emission monitoring equipment and the cooling tower, shall be installed, operated and maintained in a manner consistent with the manufacturer’s intended purpose, specifications and recommended procedures.

#### **A105 Facility: Control Equipment**

- A. **Table 105** 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.

**Table 105: Control Equipment List:**

Control Equipment Unit No.	Control Description	Pollutant being controlled	Control for Unit No. <sup>1</sup>
SCR-1	Selective Catalytic Reduction	NO <sub>x</sub>	HOBB-1/DB-1
SCR-2	Selective Catalytic Reduction	NO <sub>x</sub>	HOBB-2/DB-2
CAT-1	Catalytic Oxidation	CO, VOC, HAP	HOBB-1/DB-1
CAT-2	Catalytic Oxidation	CO, VOC, HAP	HOBB-2/DB-2
N/A	High Efficiency Drift Eliminator	PM <sub>10</sub>	IC-1
N/A	High Efficiency Drift Eliminator	PM <sub>10</sub>	IC-2
N/A	High Efficiency Drift Eliminator	PM <sub>10</sub>	IC-3
N/A	Dry Low NO <sub>x</sub> Burner	NO <sub>x</sub>	FH-1
N/A	Dry Low NO <sub>x</sub> Burner	NO <sub>x</sub>	FH-2
N/A	Dry Low NO <sub>x</sub> Burner	NO <sub>x</sub>	FH-3
N/A	Dry Low NO <sub>x</sub> Burner	NO <sub>x</sub>	HOBB-1/DB-1

N/A	Dry Low NOx Burner	NOx	HOBB-2/DB-2
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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 emission units and their allowable emission limits. (40 CFR 50, 40 CFR 60, Subparts A and KKKK, 20.2.72.210.A and B.1 NMAC)

**Table 106.A: Allowable Emissions for Turbine Generators (Units HOBB-1/DB-1 & HOBB-2/DB-2)**

Pollutant	CT w/Duct Burner	CT w/o Duct Burner	CTG <sup>9</sup> Startup & Shutdown	Averaging Period
NO <sub>2</sub> <sup>2</sup> (lbs/hr), each	18.1	14.5	193.2	Hourly rolling 24-hour average based on CEMS data (SSM limits are based on a 1-hour average)
NO <sub>2</sub> <sup>2,3</sup> (ppmv) dry @ 15% O <sub>2</sub> , each	2.0 BACT		96 <sup>1</sup> BACT	Hourly rolling 24-hour average based on CEMS data
NO <sub>2</sub> <sup>2,4</sup> (lb/MWh), each	0.43		Per NSPS KKKK	Daily rolling 30-day average (NSPS KKKK)
NO <sub>2</sub> <sup>2</sup> (tons/yr), combined	181.0			Daily rolling 365-day total (includes SSM emissions)
CO (lbs/hr), each	11.0	8.8	441	1-hour block average (Normal operation and SSM)
CO <sup>5</sup> (ppmv) dry @ 15% O <sub>2</sub> , each	2.0 BACT		3000 <sup>1</sup> BACT	1-hour block average (Normal operation and SSM)
CO (tons/yr), combined	279.5			Daily rolling 365-day total (includes SSM emissions)
VOC (lbs/hr), each	2.8	2.4	77.8	Hourly rolling 24-hour average, calculation based on emission factor determined from compliance test data (SSM limits are based on a 1-hour average)
VOC <sup>6</sup> (ppmv) dry @ 15% O <sub>2</sub> , each	1.0 BACT		187 <sup>1</sup> BACT	Hourly rolling 24-hour average (SSM limits are based on a 1-hour average)
VOC (tons/yr), combined	96.4			Daily rolling 365-day total (includes SSM emissions)

Pollutant	CT w/Duct Burner	CT w/o Duct Burner	CTG <sup>9</sup> Startup & Shutdown	Averaging Period
SO <sub>2</sub> (lbs/hr), each	10.7	8.4	N/A	1-hour block average, calculation based on Sulfur content of fuel
SO <sub>2</sub> <sup>7</sup> (lb/MMBtu), each	0.06		Per NSPS KKKK	Daily rolling 30-day average (NSPS KKKK)
SO <sub>2</sub> (tons/yr), combined	48.2			Daily rolling 365-day total (includes SSM emissions)
TSP/PM <sub>10</sub> /PM <sub>2.5</sub> <sup>8</sup> (lbs/hr), each	17.1	11.3	N/A	Hourly rolling 24-hour average, calculation based on emission factor determined from compliance test data
TSP/PM <sub>10</sub> (lb/MMBtu), each <sup>10</sup>	0.0089	0.0071	N/A	Hourly rolling 24-hour average
TSP/PM <sub>10</sub> /PM <sub>2.5</sub> (tons/yr), combined	85.8			Daily rolling 365-day total (includes SSM emissions)
NH <sub>3</sub> (lbs/hr) each	32.1		N/A	Calculation based on compliance test data
NH <sub>3</sub> (tons/yr), combined	281.3		N/A	Daily rolling 365-day total

<sup>1</sup> CTG Startup not-to-exceed emissions are based on manufacturer’s data + a 20% safety factor as a 1-hr average. Compliance with these limits shall be demonstrated by the monitoring required in Condition A401.C.

<sup>2</sup> Nitrogen oxide emissions include all oxides of nitrogen expressed as NO<sub>2</sub>.

<sup>3</sup> The NO<sub>2</sub> limit of 2.0 ppmvd is based on the SCR BACT determination submitted with the application no. 3449.

<sup>4</sup> This NO<sub>2</sub> limit is in accordance with Table 1 to NSPS Subpart KKKK.

<sup>5</sup> The CO limit of 2.0 ppmvd is based on the CatOx BACT determination submitted with the application no. 3449.

<sup>6</sup> The VOC limit of 1.0 ppmvd is based on the CatOx BACT determination submitted with the application no. 3449.

<sup>7</sup> The SO<sub>2</sub> limit is in accordance with 40 CFR 60.4330.

<sup>8</sup> The TSP/PM<sub>10</sub>/PM<sub>2.5</sub> limits include condensable particulate matter.

<sup>9</sup> N/A” indicates that startup and shutdown emissions are less than or included in the emissions limits established for normal operation.

<sup>10</sup> PSD3449R6 reduced lb/MMBtu from 0.015 combined to 0.0089 and 0.0071.

**Table 106.B: Allowable Emissions – Auxiliary Equipment**

Unit No.	<sup>1</sup> NO <sub>x</sub> pph	NO <sub>x</sub> tpy	CO pph	CO tpy	VOC pph	VOC tpy	SO <sub>2</sub> pph	SO <sub>2</sub> tpy	TSP pph	TSP tpy	PM <sub>10</sub> pph	PM <sub>10</sub> tpy
<sup>4</sup> IC-1, IC-2, IC-3A & B	- <sup>2</sup>	-	-	-	-	-	-	-	<	1.1	<	0.5
FH-1, FH-2 FH-3 A&B <sup>4</sup>	0.4	1.7	0.2	1.0	0.04	0.2	0.04	0.2	0.1	0.2	0.1	0.2
FP-1 A&B	3.5	<	1.4	<	0.8	<	0.7	<	0.1	<	0.1	<
G-1 A&B	6.3	1.6	0.9	0.2	0.5	0.1	0.3	0.1	0.2	0.1	0.2	0.1
AC-1, AC-	-	-	-	-	-	-	-	-	0.02	0.1	0.02	0.1

2, AC-3A&B <sup>4</sup>												
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<sup>1</sup> Nitrogen Oxide emissions include all oxides of nitrogen expressed as NO<sub>2</sub>.

<sup>2</sup> “-“ indicates that in accordance with the application, emissions of this pollutant are not expected.

<sup>3</sup> “<“ indicates the application represented emissions less than 1.0 pph or 1.0 tpy for this pollutant. Allowable limits are not imposed on this level of emissions, except for flares and pollutants with controls or other regulatory restrictions.

<sup>4</sup> Emission limits are the combined totals for these emission units. Units AC-3A&B, FH-3A&B, IC-3A&B added by NSR 3449-R2.

- B. BACT Operating Limits for Units HOBB-1/DB-1 and HOBB-2/DB-2, SO<sub>2</sub> and TSP/PM<sub>10</sub> shall be limited by limiting fuel usage to only pipeline quality natural gas with a total sulfur content of 1.7 grains/100 dscf or less.

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

- A. The permittee shall monitor, record and report all instances and amounts of excess emissions during routine or predictable startup, shutdown and maintenance, in accordance with 20.2.7 NMAC Excess Emissions. NO<sub>x</sub> excess emissions shall be determined in accordance with 40 CFR 60.4350.
- B. The authorization of emission limits for routine or predictable startup, shutdown, and maintenance (SSM) in Table 106.A does not supersede the requirements to minimize emissions according to General Conditions B101.F and B107.A.
- C. Routine and Predictable SSM lb/hr and BACT Emission Limits – HOBB-1/DB-1 and HOBB-2/DB-2

**Requirement:** To demonstrate compliance with the NO<sub>x</sub>, CO, and VOC lb/hr SSM emission limits and the ppmvd BACT SSM limits in Table 106.A, the permittee shall meet the facility’s Operational Plan to Mitigate SSM Emissions (Plan) required by 20.2.7.14.A NMAC. The Plan shall at a minimum:

- ensure that, at all times, the plant operators maintain the combustion turbines, including associated air pollution control and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions and;
- contain a detailed operational plan for minimizing emissions during periods of routine and predictable Startups and Shutdowns associated with planned maintenance or normal operations.

**Monitoring:** The permittee shall monitor operation of Units HOBB-1/DB-1 and HOBB-2/DB-2 in accordance with the facility Operational Plan to Mitigate SSM Emissions.

**Recordkeeping:** The permittee shall keep records of the current Operational Plan to Mitigate SSM Emissions (Plan) and its revisions.

Records of the actions required to mitigate SSM emissions in accordance with the Plan and records documenting that Plan requirements are met shall be kept.

To ensure on-going compliance with the SSM BACT limits, the permittee shall update the Plan based on operational experience with the facility.

**Reporting:** The permittee shall report in accordance with [Section B110](#).

D. SSM Ton Per Year Operating Requirements for HOBBS-1/DB-1 and HOBBS-2/DB-2

**Requirement:** The permittee shall limit annual, ton per year emissions, including emissions during routine or predictable startup, shutdown, and maintenance (SSM) to the ton per year limits listed in Table A106.A.

**Monitoring:** The permittee shall monitor all routine or predictable startups and shutdowns and scheduled maintenance events as required in Condition A401.F.

**Recordkeeping:** The permittee shall meet the recordkeeping requirements in Condition A401.C.

**Reporting:** The permittee shall report in accordance with [Section B110](#).

- (1) The following definitions expand upon the existing definitions of 20.2.7.7 NMAC:
- (a) Startup: a startup is initiated when the Data Acquisition and Handling System (DAHS) detects a flame signal (or equivalent signal) and ends when the permissives for the emission control system are met (i.e., steady state emissions compliance is achieved).
  - (b) Shutdown: a shutdown begins when the load drops to the point at which steady state emissions compliance can no longer be assured and ends when a flame-off signal is detected.
  - (c) Normal Operation: Normal operation begins upon completion of startup and lasts until a shutdown begins. Normal operations include operation of the combustion turbines (HOBB-1 and HOBB-2) in simple cycle or combined cycle mode with and without associated duct burner (DB-1 and DB-2) firing.
  - (d) Downtime or unit off-line is that time between the end of shutdown and the beginning of startup.

**A108 Facility: Allowable Operations**

A. Except for the unit specific limitations in Condition A108.B below, this facility is authorized for continuous operation. No monitoring, recordkeeping, or reporting is required to demonstrate compliance with continuous hours of operation.

B. Hours of Operation For Units HOBB-1/DB-1 and HOBB-2/DB-2

**Requirement:** In order to maintain PSD minor modification status of the turbine generator modification, for all NSR regulated pollutants, in permit PSD3449-M2, the permittee shall limit operating hours of each gas turbine to no more than 8400 hours per year. Operating

hours include all hours of operation including periods of startup and shutdown.
<b>Monitoring:</b> The permittee shall monitor operating hours of each unit in accordance with Condition <a href="#">A401.F</a> .
<b>Recordkeeping:</b> The permittee shall meet the recordkeeping requirements in Condition A401.F.
<b>Reporting:</b> The permittee shall report in accordance with Section B110.

C. Hours of Operation For Units G-1 and FP-1

<b>Requirement:</b>
(1) In accordance with 20.2.72.202.B.3 NMAC, the Standby Generator (G-1) shall only be operated during the unavoidable loss of commercial power or for necessary maintenance activities, and shall be operated less than 500 hours per year, based on a monthly rolling 12-month total basis. Any maintenance activities conducted on the standby generator are included in the 500 hours per year total.
(2) The diesel fire water pump (FP-1) shall not operate more than 100 hours per year.
<b>Monitoring:</b> None
<b>Recordkeeping:</b> The permittee shall keep record in accordance with Section B109.
<b>Reporting:</b> The permittee shall report in accordance with Section B110.

**A109 Facility: Reporting Schedules**

- A. The permittee shall report according to the Specific Conditions and General Conditions of this permit.

**A110 Facility: Fuel and Fuel Sulfur Requirements**

- A. Fuel and Fuel Sulfur Requirements For Units HOBB-1/DB-1 HOBB-2/DB-2, FH-1, FH-2, and FH-3

<b>Requirement:</b> All combustion emission units shall combust only natural gas containing no more than 1.7 grains of total sulfur per 100 dry standard cubic feet.
<b>Monitoring:</b> None. In accordance with EPA document EMTIG – GD-009 (March 12, 1990), no daily monitoring of fuel bound nitrogen is required for Units HOBB-1 and HOBB-2 because they combust only pipeline quality natural gas.
<b>Recordkeeping:</b> The permittee shall demonstrate compliance with the natural gas limit on total sulfur content by maintaining records of a current, valid purchase contract, tariff sheet or transportation contract for the fuel, or fuel gas analysis, specifying the total sulfur content in accordance with 40 CFR 60.4365. If fuel gas analysis is used, the analysis shall not be older than one year.  Alternatively, compliance may be demonstrated by keeping a receipt or invoice from a commercial fuel supplier, with each fuel delivery, which shall include the delivery date, the fuel

type delivered, the amount of fuel delivered, and the maximum sulfur content of the fuel.
<b>Reporting:</b> The permittee shall report in accordance with Section B110.

**A111 Facility: 20.2.61 NMAC Opacity**

A. For Units HOBB-1/DB-1 HOBB-2/DB-2, FH-1, FH-2, and FH-3

<b>Requirement:</b> Visible emissions from combustion emissions stacks for units HOBB-1/DB-1 HOBB-2/DB-2, FH-1, FH-2, and FH-3, shall not equal or exceed an opacity of 20%.
<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.
<b>Recordkeeping:</b> The permittee shall record dates of any opacity measures and the corresponding opacity readings.
<b>Reporting:</b> The permittee shall report in accordance with Section B110.

B. For Units G-1 and FP-1

<b>Requirement:</b> Visible emissions from combustion emission stacks from units G-1 and FP-1 shall not equal or exceed an opacity of 20%.
<b>Monitoring:</b> Once every calendar year, an opacity measurement shall be performed on each Unit for a minimum of 10 minutes in accordance with the procedures of 40 CFR 60, Appendix A, Method 9.
<b>Recordkeeping:</b> The permittee shall record the opacity measures with the corresponding opacity readings.
<b>Reporting:</b> The permittee shall report in accordance with Section B110.

**EQUIPMENT SPECIFIC REQUIREMENTS**

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

**A300 Construction Industry – Not Required**

**POWER GENERATION INDUSTRY**

**A400 Power Generation Industry**

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

**A401 Turbines**

A. Initial Compliance Test for TSP/PM<sub>10</sub>/PM<sub>2.5</sub> (Units HOBB-1/DB-1 and HOBB-2/DB-2)

**Requirement:** The permittee shall comply with the allowable lbs/MMBtu and lbs/hr emissions limit for each operating scenario (CT w/duct burner and CT w/o duct burner) listed in Table 106.A.

Compliance with the TSP emissions limits shall be deemed to demonstrate compliance with the PM<sub>10</sub> and PM<sub>2.5</sub> limits.

**Monitoring:** The permittee shall test using EPA Reference Methods 5 for filterable PM and 202 for condensable PM as required in Condition B111. The Method 5 and 202 test results shall be combined to determine compliance with allowable emission limits.

These tests shall occur within the time specified in Condition B111.A(2).

**Recordkeeping:** The permittee shall record the following for each test run:

- pound per hour emission rate from Method 5, from Method 202, and the sum of the two rates
- the fuel flow rate (scf/hr), fuel heat rate (MMBtu/scf), and the calculated heat capacity of each unit (scf/hr x MMBtu/scf = MMBtu/hr)

The permittee shall also meet the recordkeeping requirements in Section B111.

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

B. 40 CFR 60, Subpart KKKK (Units HOBB-1/DB-1 and HOBB-2/DB-2)

**Requirements:** HOBB-1 and HOBB-2 shall comply with the standards for nitrogen oxide and sulfur dioxide of 40 CFR Part 60, Subpart KKKK.

**Monitoring:** The permittee shall comply with the applicable monitoring and testing requirements of 40 CFR 60.4345.

The permittee shall comply with the combustion turbine monitoring requirements of 40 CFR 60 Subparts A and KKKK. The permittee may use the Department’s Custom Fuel Monitoring Schedule in Attachment A to meet the requirements of 40 CFR 60.4370.

In accordance with EPA document EMTIG – GD-009 (March 12, 1990), no daily monitoring of fuel bound nitrogen is required for Units HOBB-1 and HOBB-2 because they combust only pipeline quality natural gas.

**Recordkeeping:** The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60.7.

**Reporting:** The permittee shall comply with the applicable reporting requirements of 40 CFR 60.4375 and 60.4395.

C. Continuous Emission Monitoring (CEMS) For Units HOBB-1/DB-1 and HOBB-2/DB-2

**Requirement:** To demonstrate compliance with the allowable NO<sub>x</sub>, CO, VOC, SO<sub>x</sub> and TSP/PM<sub>10</sub>/PM<sub>2.5</sub> emission limits in Table 106.A and with NSPS KKKK limits, the permittee shall meet the following Continuous Emissions Monitoring System (CEMS) requirements and the following monitoring, recordkeeping, and reporting requirements.

1. The exhaust stacks for these units shall be equipped and maintained with NO<sub>x</sub>, CO and O<sub>2</sub> CEMS. The permittee shall maintain the units according to manufacturer's requirements.
2. The NO<sub>x</sub> and O<sub>2</sub> CEMS shall be designed, installed and certified in accordance with 40 CFR Part 75. Alternatively, the NO<sub>x</sub> CEMS may be installed and certified in accordance with the provisions of 40 CFR Part 60, Appendix B, Performance Specification 2 (PS2) – Specifications and Test Procedures for SO<sub>2</sub> and NO<sub>x</sub> Continuous Emissions Monitoring Systems in Stationary Sources.
3. The CO CEMS shall be designed, installed and certified in accordance with the provisions of 40 CFR Part 60, Appendix B, Performance Specification 4A – Specification and Test Procedure for Carbon Monoxide Continuous Emissions Monitoring Systems in Stationary Sources. Following certification testing, the CO CEMS shall be operated in accordance with the provisions of 40 CFR Part 60, Appendix F – Quality Assurance Requirements for Continuous Emissions Monitoring Systems.

**Monitoring:**

1. All CEMS shall comply with the requirements of 40 CFR 60.13, Monitoring Requirements.
2. The NO<sub>x</sub> CEMS shall also comply with the requirements of 40 CFR 60.4345.
3. The CEMS shall monitor all instances of excess emissions during startups, shutdowns, maintenance and malfunctions, including those associated with control equipment upset.

**Recordkeeping:**

- (1) The permittee shall keep a quality assurance plan for all CEMS in accordance with 40 CFR 60.4345 and 40 CFR 75, Appendix B.
- (2) The permittee shall monitor and record all instances in which the CEMS are not in operation or accurately recording stack concentrations.
- (3) The permittee shall ensure that all of the required monitoring systems are installed and meet the following requirements:
  - i) The NO<sub>x</sub> and CO<sub>2</sub> or O<sub>2</sub> CEMS shall be audited in accordance with 40 CFR Part 60 Subpart KKKK or 40 CFR Part 75. The CO CEMS shall be audited in accordance with 40 CFR Part 60, Appendix F.
  - ii) The reported output of the CEMS shall be in:
    - a. ppmv of NO<sub>x</sub> and CO at dry standard conditions;
    - b. ppmv of NO<sub>x</sub> and CO corrected to 15% oxygen at dry standard conditions; and lbs/hr of NO<sub>x</sub> and CO.
  - iii) The QA/QC plan required by 40 CFR Part 60, Appendix F, shall include a data

substitution procedure for the CO CEMS that is consistent with requirements of 40 CFR Part 75's missing data procedure for SO<sub>2</sub> data. The QA/QC plan shall be submitted to the Department with the test protocols.

(4) For each CEMS, the permittee shall maintain records of performance test measurements, all performance evaluations, calibration checks, and all adjustment and maintenance activities.

(5) The permittee shall maintain records of the following requirements using data from the CEMS (DAHS) to demonstrate compliance with established emission limits:

i) For NO<sub>x</sub>:

- (1) The 24-hour average lb/hr.
- (2) The 24-hour average parts per million by volume (on a dry standard cubic foot basis, corrected to 15% O<sub>2</sub>).
- (3) The daily-rolling 30-day average lb/MWh (calculated in accordance with NSPS KKKK, 60.6350).
- (4) The daily-rolling 365-day total tons/year for the combined units (updated monthly by the 15<sup>th</sup> of the following month) including any emissions during routine or predictable startup, shutdown, and scheduled maintenance (SSM).

ii) For CO:

- (1) The one-hour average lb/hr.
- (2) The one-hour average ppmvd @ 15% O<sub>2</sub>.
- (3) The daily-rolling 365-day total tons/year for the combined units (updated monthly by the 15<sup>th</sup> of the following month) including any emissions during routine or predictable startup, shutdown, and scheduled maintenance (SSM).

iii) For VOC:

- (1) The 24-hour average lb/hr calculated by DAHS using the heat input and the emission factor determined by the most recent compliance test.
- (2) The 24-hour average CO concentration in ppmvd @ 15% O<sub>2</sub>, using the 1 hr average CO CEMS output (Compliance with the 24-hr average CO concentration limits in ppmvd@15% O<sub>2</sub> shall also demonstrate compliance with the 24-hr average VOC concentration in ppmvd@15% O<sub>2</sub>).
- (3) The daily-rolling 365-day total tons/year for the combined units (updated monthly by the 15<sup>th</sup> of the following month) including any emissions during routine or predictable startup, shutdown, and scheduled maintenance (SSM).

iv) For SO<sub>2</sub>:

- (1) One-hour average lb/hr calculated by DAHS using the heat input and the emission factor calculated using (1) Equation D-1h from 40 CFR 75, Appendix D, Section 2.3.2.1.1 and (2) the sulfur content from the current valid tariff or

<p>annual sulfur sampling results. Additionally, 40 CFR 75, Appendix D, Section 2.3.1.1 may also be used for the SO<sub>2</sub> emission factor as applicable.</p> <p>(2) The daily-rolling 30-day average lb/MMBtu calculated by the DAHS using (1) Equation D-1h from 40 CFR 75, Appendix D, Section 2.3.2.1.1 and (2) the sulfur content from the current valid tariff or annual sulfur sampling results. Additionally, 40 CFR 75, Appendix D, Section 2.3.1.1 may also be used for the SO<sub>2</sub> emission factor as applicable.</p> <p>(3) The daily-rolling 365-day total tons/year for the combined units (updated monthly by the 15<sup>th</sup> of the following month) including any emissions during routine or predictable startup, shutdown, and scheduled maintenance (SSM).</p> <p>v) For TSP/PM<sub>10</sub>/PM<sub>2.5</sub>:</p> <p>(1) The 24-hour average lb/hr calculated by DAHS using the heat input and the emission factor determined by the most recent compliance test required by Condition A401.A.</p> <p>(2) The daily-rolling 24-hour average lb/MMBtu rates of TSP and PM<sub>10</sub> calculated by direct conversion of the hourly emissions calculated above in v)(1). This requirement is not applicable for PM<sub>2.5</sub>.</p> <p>(3) The daily-rolling 365-day total tons/year emissions calculated by DAHS using the heat input and the emission factor determined by the most recent initial compliance test required by Condition A401.A. The ton per year emissions shall include any emissions during routine or predictable startup, shutdown, and scheduled maintenance (SSM).</p>
<p><b>Reporting:</b> All CEMS shall be subject to the notification requirements of 40 CFR 60.7. The QA/QC plan shall be submitted to the Department with the Compliance Test Protocols.</p>

D. Temperature and Static Pressure Drop for Catalyst Beds For Units HOBB-1/DB-1 and HOBB-2/DB-2

<p><b>Requirement:</b> The permittee shall monitor the temperature and static pressure drop. A thermocouple shall be installed at the inlet of the catalyst bed of SCR-1 and SCR-2.</p>
<p><b>Monitoring:</b> The permittee shall continuously monitor the temperature at the inlet of each SCR catalyst bed, and static pressure drop from the inlet of the CatOx to the outlet of the SCR catalyst bed.</p>
<p><b>Recordkeeping:</b></p> <p>(1) The permittee shall monitor and record all the instances in which the SCR monitors above are not in operation or out of calibration specifications.</p> <p>(2) The permittee shall develop and maintain on-site a procedure to monitor SCR catalyst activity, to predict its remaining active life and to define parameters for catalyst replacement.</p>
<p><b>Reporting:</b> The permittee shall report in accordance with Section B110.</p>

## E. Ammonia Injection For Units HOBB-1/DB-1 and HOBB-2/DB-2

**Requirement:**

- (1) Ammonia injection shall commence when the inlet temperature to the ammonia injection grid has exceeded 582 °F. This condition is included to reduce NO<sub>x</sub> emissions during startup.
- (2) The facility shall not store or use aqueous ammonia in concentrations greater than 19% in SCR-1 and SCR-2. However, if aqueous ammonia in concentrations greater than 20% is utilized, storage shall be limited to 20,000 pounds.
- (3) Annual compliance testing is required on Stacks 1 and 2 for ammonia. When the measured concentration equals or exceeds 75% of the permitted limit, the permittee shall determine the catalyst activity and schedule replacement in accordance with the procedures required in A401.D.

**Monitoring:** The permittee shall monitor the quantity of aqueous ammonia injected into each SCR system on an hourly basis.

**Recordkeeping:**

- (1) The ammonia injection systems shall be inspected on a daily basis to ensure proper operation.
- (2) The permittee shall maintain records of the following requirements using data from the annual compliance test to demonstrate compliance with established emission limits:
- i) The hourly lb/hr emission rate observed during the most recent annual compliance test.
  - ii) The daily-rolling 365-day total tons/year for the combined units calculated by the daily hours of operation times the hourly emission rate observed during the most recent annual compliance test (updated monthly by the 15<sup>th</sup> of the following month).

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

## F. Mode of Operation For Units HOBB-1/DB-1 and HOBB-2/DB-2

**Requirement:** To verify compliance with the allowable emission limits during each operating mode in Table 106.A, the ton per year limits in Table 106.A, and with the total annual operating hour limit in Condition A108.B. The modes of operation include startup, shutdown, non-duct-burning, and duct burning.

**Monitoring:** The permittee shall monitor, using the CEMS and DAHS system, the start and stop times and dates of each operating mode and the total unit operating hours, as defined in 40 CFR 60.4420, for each Turbine (Units HOBB-1/DB-1 and HOBB-2/DB-2) on an hourly, daily, monthly and monthly rolling 12-month total basis.

**Recordkeeping:** For each turbine and each mode, the permittee shall record the operating mode (startup, non-duct burning, duct burning, or shutdown), the date, and the mode start time and end time.

The permittee shall also record the total operating hours of each turbine on a monthly rolling 12-month basis.

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

G. Gas Flow Rate and Data for Emissions Estimates For Units HOBB-1/DB-1 and HOBB-2/DB-2

<p><b>Requirement:</b> To measure the heat input (MMBtu/hr) for determining emission estimates for VOC, SO<sub>x</sub>, TSP/PM<sub>10</sub>/PM<sub>2.5</sub> per Condition A401.C and meet acid rain requirements, the permittee shall install a natural gas fuel flow monitor or equivalent measuring device shall be installed on Units HOBB-1, HOBB-2, DB-1 and DB-2 and meet the initial certification requirements of 40 CFR Part 75, Appendix D.2.1.5, and the quality assurance requirements of 40 CFR Part 75, Appendix D.2.1.6.</p>
<p><b>Monitoring:</b>                  (1) The permittee shall monitor the total volumetric flow of natural gas consumed by each combustion Turbine and duct burner on a daily, monthly, and monthly rolling 12-month total basis.                  (2) For time periods outside of compliance testing, exhaust gas flow shall be determined by EPA Method 19 (F factors) or another approved method as determined by the Department.</p>
<p><b>Recordkeeping:</b> The permittee shall keep records in accordance with Section B109.</p>
<p><b>Reporting:</b> The permittee shall report in accordance with Section B110.</p>

H. Cooling Tower Monitoring (Unit AC-1, 2, 3)

<p><b>Requirement:</b>                  (1) The cooling towers shall be inspected on a daily basis to ensure they are being operated as described in the permit application.                  (2) The facility shall not use any cooling water additives containing heavy metals such as chromium in the cooling tower.                  (3) The total dissolved solids (TDS) from the cooling tower basin shall not exceed 3,000 parts per million (ppm).</p>
<p><b>Monitoring:</b> The permittee shall inspect the cooling towers daily and monitor and record the TDS concentration (ppm) in the cooling tower basins on a daily basis. A written copy of the procedure used to determine the TDS concentration shall be kept on-site and made available to the Department upon request.</p>
<p><b>Recordkeeping:</b> The permittee shall, in addition to the TDS records above, keep records of the cooling tower daily inspections and the cooling tower chemical additives used in accordance with Section B109.</p>
<p><b>Reporting:</b> The permittee shall report in accordance with Section B110.</p>

**A402 Engines**

A. 40 CFR 60, Subpart IIII (Unit G-1)

<p><b>Requirements:</b> The permittee shall comply with the applicable requirements of 40 CFR Part 60, Subpart IIII.</p>
<p><b>Monitoring:</b> The permittee shall comply with the applicable monitoring requirements of 40 CFR 60 Subparts A and IIII.</p>
<p><b>Recordkeeping:</b> The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 60 Subparts A and IIII.</p>

**Reporting:** The permittee shall comply with the applicable reporting requirements of 40 CFR 60 Subparts A and III.

B. 40 CFR 63, Subpart ZZZZ (Units G-1 and FP-1)

**Requirement:** The units are subject to 40 CFR 63, Subpart ZZZZ and the permittee shall comply with all applicable requirements of Subpart A and Subpart ZZZZ. However, Stationary RICE subject to Regulations under 40 CFR Part 60 must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart III, for compression ignition engines. No further requirements apply for such engines under this part. (40 CFR 63.6590(c))

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

**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.

## **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 plot plan submitted with the application. (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  
525 Camino de los Marquez, Suite 1  
Santa Fe, NM 87505
- F. 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. (20.2.7.109, 20.2.72.210.A, 20.2.72.210.B, 20.2.72.210.C, 20.2.72.210.E NMAC) The establishment of allowable malfunction emission limits does not supersede this requirement.

### **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, Harold Runnels Bldg  
P.O. Box 5469  
Santa Fe, New Mexico 87502-5469

#### **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) or as directed by the Department.
- B. Excess Emission Reports shall be submitted as directed by the Department. (20.2.7.110 NMAC)
- C. Routine reports shall be 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

**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 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. (SSM work practice plan) (20.2.7.14.A NMAC)

**B108 General Monitoring Requirements**

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

- C. 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.
- D. The requirement for monitoring during any monitoring period is based on the percentage of time that the unit has operated. However, to invoke the monitoring period exemption 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 any five-year period.
- 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 re-imposed 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.

### **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 or at the permittee's local business office for a minimum of two (2) years from the time of recording and shall be made available to Department personnel upon request. 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. Malfunction emissions and 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, 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 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, including the date, the start time, the end time, and a description of the event. **Malfunction means** any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions. (40 CFR 63.2, 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.

#### **B110 General Reporting Requirements**

(20.2.72 NMAC Sections 210 and 212)

- A. Records and reports shall be maintained on-site or at the permittee's local business office 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 business 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. Notification may occur prior to issuance of the permit, but 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.

#### 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 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>10</sub> and PM<sub>2.5</sub>
  - (k) Method 202 for condensable PM
  - (l) Method 320 for organic Hazardous Air Pollutants (HAPs)

- (m) Method 25A for VOC reduction efficiency
- (n) Method 30B for Mercury
- (2) Alternative test method(s) may be used if the Department approves the change

C. Periodic Monitoring and Portable Analyzer Requirements

- (1) Periodic emissions tests (periodic monitoring) 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 ASTM D 6522-00. 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) Unless otherwise indicated by Specific Conditions or regulatory requirements, 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, 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.

- (5) 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 Method 1 or ASTM D 6522-00 as applicable.
- (6) Where necessary to prevent cyclonic flow in the stack, flow straighteners shall be installed
- (7) Unless otherwise indicated by Specific Conditions or regulatory requirements, 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. (20.2.72.210.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.

**B116 Short Term Engine Replacement**

- A. The following Alternative Operating Scenario (AOS) addresses engine breakdown or periodic maintenance and repair, which requires the use of a short term replacement engine. The following requirements do not apply to engines that are exempt per 20.2.72.202.B(3) NMAC. Changes to exempt engines must be reported in accordance with 20.2.72.202.B NMAC. A short term replacement engine may be substituted for any engine allowed by this permit for no more than 120 days in any rolling twelve month period per permitted engine. The compliance demonstrations required as part of this AOS are in addition to any other compliance demonstrations required by this permit.

- (1) The permittee may temporarily replace an existing engine that is subject to the emission limits set forth in this permit with another engine regardless of manufacturer, model, and horsepower without modifying this permit. The permittee shall submit written notification to the Department within 15 days of the date of engine substitution according to condition B110.C(1).
  - (a) The potential emission rates of the replacement engine shall be determined using the replacement engine’s manufacturer specifications and shall comply with the existing engine’s permitted emission limits.
  - (b) The direction of the exhaust stack for the replacement engine shall be either vertical or the same direction as for the existing engine. The replacement engine’s stack height and flow parameters shall be at least as effective in the dispersion of air pollutants as the modeled stack height and flow parameters for the existing permitted engine. The following equation may be used to show that the replacement engine disperses pollutants as well as the existing engine. The value calculated for the replacement engine on the right side of the equation shall be equal to or greater than the value for the existing engine on the left side of the equation. The permitting page of the Air Quality Bureau website contains a spreadsheet that performs this calculation.

EXISTING ENGINE

REPLACEMENT ENGINE

$$\frac{[(g) \times (h1)] + [(v1)^2/2] + [(c) \times (T1)]}{q1} \leq \frac{[(g) \times (h2)] + [(v2)^2/2] + [(c) \times (T2)]}{q2}$$

Where

g = gravitational constant = 32.2 ft/sec<sup>2</sup>

h1 = existing stack height, feet

v1 = exhaust velocity, existing engine, feet per second

c = specific heat of exhaust, 0.28 BTU/lb-degree F

T1 = absolute temperature of exhaust, existing engine = degree F + 460

q1 = permitted allowable emission rate, existing engine, lbs/hour

h2 = replacement stack height, feet

v2 = exhaust velocity, replacement engine, feet per second

T2 = absolute temperature of exhaust, replacement engine = degree F + 460

q2 = manufacturer’s potential emission rate, replacement engine, lbs/hour

The permittee shall keep records showing that the replacement engine is at least as effective in the dispersion of air pollutants as the existing engine.

- (c) Test measurement of NOx and CO emissions from the temporary replacement engine shall be performed in accordance with Section B111

with the exception of Condition B111A(3) and B111B for EPA Reference Methods Tests or Section B111C for portable analyzer test measurements. Compliance test(s) shall be conducted within fifteen (15) days after the unit begins operation, and records of the results shall be kept according to section B109.B. This test shall be performed even if the engine is removed prior to 15 days on site.

- i. These compliance tests are not required for an engine certified under 40CFR60, subparts IIII, or JJJJ, or 40CFR63, subpart ZZZZ if the permittee demonstrates that one of these requirements causes such engine to comply with all emission limits of this permit. The permittee shall submit this demonstration to the Department within 48 hours of placing the new unit into operation. This submittal shall include documentation that the engine is certified, that the engine is within its useful life, as defined and specified in the applicable requirement, and shall include calculations showing that the applicable emissions standards result in compliance with the permit limits.
    - ii. These compliance tests are not required if a test was conducted by portable analyzer or by EPA Method test (including any required by 40CFR60, subparts IIII and JJJJ and 40CFR63, subpart ZZZZ) within the last 12 months. These previous tests are valid only if conducted at the same or lower elevation as the existing engine location prior to commencing operation as a temporary replacement. A copy of the test results shall be kept according to section B109.B.
  - (d) Compliance tests for NO<sub>x</sub> and CO shall be conducted if requested by the Department in writing to determine whether the replacement engine is in compliance with applicable regulations or permit conditions.
  - (e) Upon determining that emissions data developed according to B116.A.1(c) fail to indicate compliance with either the NO<sub>x</sub> or CO emission limits, the permittee shall notify the Department within 48 hours. Also within that time, the permittee shall implement one of the following corrective actions:
    - i. The engine shall be adjusted to reduce NO<sub>x</sub> and CO emissions and tested per B116.A.1(c) to demonstrate compliance with permit limits.
    - ii. The engine shall discontinue operation or be replaced with a different unit.
- (2) Short term replacement engines, whether of the same manufacturer, model, and horsepower, or of a different manufacturer, model, or horsepower, are subject to all federal and state applicable requirements, regardless of whether they are set

forth in this permit (including monitoring and recordkeeping), and shall be subject to any shield afforded by this permit.

- (3) The permittee shall maintain a contemporaneous record documenting the unit number, manufacturer, model number, horsepower, emission factors, emission test results, and serial number of any existing engine that is replaced, and the replacement engine. Additionally, the record shall document the replacement duration in days, and the beginning and end dates of the short term engine replacement.
  - (4) The permittee shall maintain records of a regulatory applicability determination for each replacement engine (including 40CFR60, subparts III and JJJJ and 40CFR63, subpart ZZZZ) and shall comply with all associated regulatory requirements.
- B. Additional requirements for replacement of engines at sources that are major as defined in regulation 20.2.74 NMAC, Permits – Prevention of Significant Deterioration, section 7.AF. For sources that are major under PSD, the total cumulative operating hours of the replacement engine shall be limited using the following procedure:
- (1) Daily, the actual emissions from the replacement engine of each pollutant regulated by this permit for the existing engine shall be calculated and recorded.
  - (2) The sum of the total actual emissions since the commencement of operation of the replacement engine shall not exceed the significant emission rates in Table 2 of 20.2.74 NMAC, section 502 for the time that the replacement engine is located at the facility.
- C. All records required by this section shall be kept according to section B109.

## **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>2</sub>. (20.2.2 NMAC)

- K. **“NO<sub>x</sub>”** see NO<sub>2</sub>
- 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.
- N. **“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.
- O. **"Shutdown"** for requirements under 20.2.72 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.
- 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 NMAC, means the cessation of operation of any air pollution control equipment or process equipment.
- (2) **"Startup"** for requirements under 20.2.7 NMAC, means the setting into operation of any air pollution control equipment or process equipment.
- Q. **"Startup"** for requirements under 20.2.72 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**

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
AQCR .....	Air Quality Control Region
ASTM .....	American Society for Testing and Materials
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
CI .....	compression ignition
CO.....	carbon monoxides
COMS .....	continuous opacity monitoring system
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
GRI.....	Gas Research Institute
HAP.....	hazardous air pollutant
hp .....	horsepower
H <sub>2</sub> S .....	hydrogen sulfide
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
NEESHAP .....	National Emission Standards for Hazardous Air Pollutants
NG .....	natural gas
NGL .....	natural gas liquids
NMAAQs .....	New Mexico Ambient Air Quality Standards
NMAC.....	New Mexico Administrative Code
NMED.....	New Mexico Environment Department
NMSA.....	New Mexico Statues 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
PSD.....	Prevention of Significant Deterioration
RATA.....	Relative Accuracy Test Assessment
RICE.....	reciprocating internal combustion engine
rpm.....	revolutions per minute
scfm.....	standard cubic feet per minute
SI.....	spark ignition
SO <sub>2</sub> .....	sulfur dioxide
SSM.....	Startup Shutdown Maintenance (see SSM definition)
TAP.....	Toxic Air Pollutant
TBD.....	to be determined
THC.....	total hydrocarbons
TSP.....	Total Suspended Particulates
tpy.....	tons per year
ULSD.....	ultra low sulfur diesel
USEPA.....	United States Environmental Protection Agency
UTM.....	Universal Transverse Mercator Coordinate system
UTMH.....	Universal Transverse Mercator Horizontal
UTMV.....	Universal Transverse Mercator Vertical
VHAP.....	volatile hazardous air pollutant
VOC.....	volatile organic compounds