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AIR QUALITY BUREAU
NEW SOURCE REVIEW PERMIT
Issued under 20.2.72 and 20.2.74 NMAC

Certified Mail No: ~~7015-1520-0001-8090-9787~~N/a draft
Return Receipt Requested

NSR Permit No: PSD-5217M~~1R~~2
Facility Name: Zia II Gas Plant

Permittee Name: DCP Midstream, L.P.
Mailing Address: 10 Desta Drive, Suite 400 West
Midland, TX 79705

TEMPO/IDEA ID No: 32800-PRN201~~6~~70001
AIRS No: 35 025 0571
Permitting Action: ~~Technical-Significant Permit~~ Revision
Source Classification: TV Major and PSD Major
Facility Location: 611,720 m E by 3,612,340 m N;
Zone 13; Datum NAD83
County: Lea

Air Quality Bureau Contact Kirby Olson
Main AQB Phone No. (505) 476-4300

Richard L. Goodyear, PE
Bureau Chief
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Date

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PART A FACILITY SPECIFIC REQUIREMENTS**A100 Introduction**

- A. This permit, NSR PSD-5217-M1R2, supersedes all portions of Air Quality Permit PSD-5217M1R1, issued February 16, 2016, 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 permitted Best Available Control Technology (BACT) emission limits identified as BACT in Tables 106.B and 107.A were determined through a PSD BACT review and determination in accordance with NMAC 20.2.74 Permits – Prevention of Significant Deterioration. Any change or revision of these BACT limits or operational requirements must be applied for and accompanied by a corresponding re-evaluation of the original BACT determination (20.2.74.302 NMAC).

A101 Permit Duration (expiration)

- A. The term of this permit is permanent unless withdrawn or cancelled by the Department.

A102 Facility: Description

- A. The Zia II facility is a natural gas processing plant. The function of the facility is to treat and process natural gas from DCP gathering systems located throughout southeast New Mexico. The facility ~~will utilize~~uses a cryogenic gas process and ~~be is~~ is designed to operate at a nominal rate of 200 MMscf/day and a maximum rate of 230 MMscf/day of natural gas. Processing includes the removal of water, carbon dioxide, hydrogen sulfide, extraction of natural gas liquids, and reinjection of acid gases. The description of this facility is for informational purposes only and is not enforceable.
- B. This facility is located approximately 28 miles northeast of Carlsbad, New Mexico in Lea County.
- C. This application revises existing PSD permit No. PSD5217M1 to change the BACT limit for VOC emissions from the vapor combustion device, unit VCD1 to a destruction rate efficiency (DRE), rather than a lb/MMBtu limit. This revision also revises the greenhouse gas tpy BACT limits for compressor engines C1-E through

~~C8-E from 16,029 tpy CO₂e to 16,038.5 tpy CO₂e. The PM₁₀ and PM_{2.5} mass emission limits for the emergency generator, unit GEN-1, have increased by a very small amount. This modification is to install a second wet surface air cooler; this cooler will be on the CO₂ acid gas injection stream. This modification also removed conditions related to 20.2.37 NMAC, which has been repealed, and added condition A111A, 20.2.61 NMAC Opacity.~~

- D. Table 102.A and Table 102.B show the total potential emissions from this facility as represented in the calculations for the application for information only, not an enforceable condition. This table does not include sources or activities without emissions or not regulated pursuant to the Act.

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

Pollutant	Emissions (tons per year)*
Nitrogen Oxides (NO _x)	274.7
Carbon Monoxide (CO)	117.9
Volatile Organic Compounds (VOC)	155.5
Sulfur Dioxide (SO ₂)	114.8
Total Suspended Particulates (TSP)	20.3
Particulate Matter less than 10 microns (PM ₁₀)	20.1
Particulate Matter less than 2.5 microns (PM _{2.5})	20.1
Hydrogen Sulfide (H ₂ S)	1.6
Greenhouse Gas (GHG)	340,51732

* Totals include emissions from Fugitives and SSM.

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

Pollutant	Emissions (tons per year)
Acetaldehyde; (Ethyl aldehyde)	12.2
Acrolein	7.0
Benzene	1.9
Ethylbenzene	2.3
Formaldehyde	12.3
Hexane (n-)	4.5
Methanol; (Methyl alcohol)	4.4
Styrene	2.2
Toluene; (Methyl benzene)	2.1
Trimethylpentane (2,2,4-)	3.3
Xylenes (total); (Xylol)	1.9
Total HAPs**	58.5

* 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 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

Applicable Requirements	Federally Enforceable	Unit No.
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
20.2.61 NMAC Smoke and Visible Emissions	X	Combustion Emission Sources
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 Permits – Prevention of Significant Deterioration (PSD)	X	Entire facility
20.2.75 NMAC Construction Permit Fees	X	Entire facility
20.2.77 NMAC New Source Performance	X	See sources subject to 40 CFR 60
20.2.80 NMAC Stack Heights	X	Entire facility
20.2.82 NMAC MACT Standards for Source Categories of HAPS	X	See sources subject to 40 CFR 63
40 CFR 50 National Ambient Air Quality Standards	X	Entire facility
40 CFR 60, Subpart A, General Provisions	X	See sources subject to 40 CFR 60
40 CFR 60.18	X	FL1, FL2, and FL3
40 CFR 60, Subpart Dc	X	H1, H3, H4 and H5
40 CFR 60, Subpart IIII	X	GEN-1
40 CFR 60, Subpart JJJJ	X	C1-E to C10-E
40 CFR 60, Subpart OOOO	X	C1-C to C10-C, C14-C, and C15-C, as well as equipment leaks (FUG)
40 CFR 63, Subpart A, General Provisions	X	See sources subject to 40 CFR 63
40 CFR 63, Subpart HH	X	Dehy
40 CFR 63, Subpart ZZZZ	X	C1-E to C10-E, GEN-1
40 CFR 63, Subpart DDDDD	X	H1, H3, H4, H5, and H6
40 CFR 64	X	Subject Units to be determined in Title V
40 CFR 68, Chemical Accident Prevention	X	Entire facility

A104 Facility: Regulated Sources

A. Table 104 lists the emission units authorized for this facility. Emission units and/or equipment without emissions or not regulated pursuant to the Act are not included.

Table 104: Regulated Sources List

Unit No.	Source Description	Make Model	Serial No.	Permitted Capacity	Construction Dates as defined under 20.2.74.7 NMAC
Amine	Amine sweetening Units	UOPTR 1000gpm	NA	230 MMscf/d inlet capacity	June 2014
C1-E	4SLB RICE	Caterpillar G3616	BLB00911	4735 hp	June 2014
C2-E	4SLB RICE	Caterpillar G3616	BLB00912	4735 hp	June 2014
C3-E	4SLB RICE	Caterpillar G3616	BLB00915	4735 hp	June 2014
C4-E	4SLB RICE	Caterpillar G3616	BLB00918	4735 hp	June 2014
C5-E	4SLB RICE	Caterpillar G3616	BLB00917	4735 hp	June 2014
C6-E	4SLB RICE	Caterpillar G3616	BLB00913	4735 hp	June 2014
C7-E	4SLB RICE	Caterpillar G3616	BLB00916	4735 hp	June 2014
C8-E	4SLB RICE	Caterpillar G3616	BLB00914	4735 hp	June 2014
C9-E	4SLB RICE	Caterpillar G3608LE	BEN1006	2370 hp	June 2014
C10-E	4SLB RICE	Caterpillar G3608LE	BEN01001	2370 hp	June 2014
C1-C to C10-C, C14-C, and C-15C	Compressors (reciprocating)	Ariel	Various	N/A	June 2014
Dehy	TEG Dehydrator Still Vent/Flash Tank	Enerflex	E001227	230 MMSCF/d	June 2014
FL1	Inlet Gas Flare	Zeeco	FL-5100/24093	230 MMscf/d	June 2014
FL2	Acid Gas Flare	Zeeco	FL-5200/24093	6.5 MMscf/d	June 2014
FL3	Lusk Emergency Flare	Flare King	FL-020583	13 MMscf/d	March 2012
FUG	Facility-wide Fugitives	NA	NA	NA	June 2014
H1	Trim Reboiler Heater	Heatec HCI-10010-40-D	HI-13-170	26 MMBTU/hr	March 2015
H3	Regeneration Gas Heater	Heatec HCI-5010-40-G	HI-13-165	10 MMBTU/hr	June 2014
H4	Hot Oil Heater	OPF	J121104	99 MMBTU/hr	June 2014

Unit No.	Source Description	Make Model	Serial No.	Permitted Capacity	Construction Dates as defined under 20.2.74.7 NMAC
H5	Hot Oil Heater	OPF	J131125	99 MMBTU/hr	June 2014
H6	TEG Regeneration Heater	Maxon XPO-3	942556	3.5 MMBTU/hr	June 2014
HAUL	Paved Haul Roads	N/A	N/A	N/A	June 2015
L1	Truck Load-out	N/A	N/A	38,325 Mgal/y	June 2014
TK-2100	Condensate Tank	Tank and Vessel Builders	201429	1000 bbl / 38,325 Mgal/y ¹	June 2014
TK-2200	Condensate Tank	Tank and Vessel Builders	201430	1000 bbl / 38,325 Mgal/y ¹	June 2014
TK-6100	Produced Water Tank	Palmer	ST1046541	300 bbl / 766,500 gal/y ²	June 2014
TK-6150	Produced Water Tank	Palmer	ST1406066	300 bbl / 766,500 gal/y ²	June 2014
VCD1	Vapor Combustion Device (enclosed flare)	Zeeco	24895	3.6 MMBTU/hr	June 2014
GEN-1	Standby Diesel Generator	Cummins DSFAC	737995886	70 hp	Jan 2015
CT-1	Wet Surface Air Cooler	Niagara Blower Company A4407SL	14-23717	240 gpm	June 2014
CT-2	Wet Surface Air Cooler	Niagara Blower Company A4406	TBD ³	126 gpm	TBD
SSM(CB)	Compressor Blowdown	N/A	N/A	59,800 scf/yr	June 2014
SSM(PV)	Plant Venting	N/A	N/A	14,100,000 scf/yr	June 2014

1. Total facility condensate throughput of 38,325,000 gal/y for TK-2100 and TK-2200 combined, and is equal to Unit L1 (truck load-out).
2. Total facility produced water output (766,500 gal/y; TK-6100 and TK-6150 combined).
3. All TBD (to be determined) units and like-kind engine replacements must be evaluated for applicability to NSPS and MACT requirements.

~~The Permittee shall verify the information in Table 104 and report to the Permit Programs Manager any changes or corrections to the values in Table 104 within 15 days after the initial startup date of each unit or within 15 days of issuance of Permit PSD-5217-M1, whichever is later. At a minimum, the month and year of each construction date shall be reported for each unit based on the "begin actual construction date" as defined at 20.2.74.7.J NMAC. Begin actual construction date is defined as "initiation of physical onsite construction activities on an emissions~~

~~unit which are of a permanent nature. Such activities include, but are not limited to, installation of building supports and foundations, laying underground pipework and construction of permanent storage structures.”~~

~~The permittee increased the process rates and/or allowable emission limits in PSD5217-M1 for the units FL1, FL2, and FUG. Within 15 days of the issuance of PSD5217-M1, the permittee shall report to the Permit Programs Manager the Month and Year that the process rates and/or the potential emission rates increased to the current permitted limits. If not increase has yet occurred for a unit, the report shall state that.~~

- B. For any future like-kind replacements of internal combustion engines (ICE) (C1-E to C10-E, GEN-1), before making the replacement, the permittee shall determine and document Prevention of Significant Deterioration (PSD) applicability, including defining the project (20.2.74.200 NMAC); shall determine and record the low level regulatory citation any applicable emissions and/or operational standards from 40 CFR 60 and/or 40 CFR 63. These records shall be included with the application requesting the like-kind replacement modification and shall be maintained according to Section B111 and at least as long as the applicable PSD contemporaneous period.
- C. For each ICE (C1-E to C10-E, GEN-1) and compressor (C1-C to C15-C), the permittee shall maintain a log with the unit number; the most current construction, modification, or reconstruction date, whether the compressor is a screw or reciprocating compressor, and the serial number; as well as the maintenance done in accordance with section B111.

A105 Facility: Controls including BACT

- A. Table 105 lists all the pollution control requirements for this facility. The installation, configuration, and operation of the controls listed in Table 105 are enforceable requirements.

Table 105: Pollutant Controls:

Control Equipment Unit No.	Control Description	Pollutant(s) being controlled	*Control for Unit Number(s) in Table 104	Required for BACT
AGI1 and/or AGI2 ¹	Still Vent to Acid gas injection well(s) 100% Capture	VOC, CO2e, and H2S	Amine	Yes – CO2e and VOC No – H2S
See control description in the flash tank	Flash Tank emissions recycle to inlet 100% Capture	VOC, CO2e, and H2S	Amine	Yes – CO2e and VOC No – H2S

Control Equipment Unit No.	Control Description	Pollutant(s) being controlled	*Control for Unit Number(s) in Table 104	Required for BACT
FL2	Still Vent to Acid gas flare; 100% Capture, 98% DRE ²	VOC, CO _{2e} , and H ₂ S	Amine	Yes – CO _{2e} and VOC No – H ₂ S
See control description C1-E to C10-E	Lean Burn Technology, AFR ³ Controller, GCP ⁴	NO _x	C1-E to C10-E	Yes
C1-E to C10-E See control description	Oxidation catalyst and GCP	CO, VOC, Formaldehyde	C1-E to C10-E	Yes – CO and VOC No - Formaldehyde
C1-E to C10-E See control description	Pipeline quality natural gas ⁵	SO _x	C1-E to C10-E	Yes
C1-E to C10-E See control description	GCP and pipeline quality natural gas	PM ₁₀ , PM _{2.5} , CO _{2e}	C1-E to C10-E	Yes
FL1	Facility-wide to combust venting and blowdown for maintenance; FUG (portion) 100% Capture, 98% DRE	VOC, CO _{2e} , and H ₂ S	Compressor and piping blowdown/venting; FUG (portion)	Yes – CO _{2e} and VOC No – H ₂ S
Dehy and BTEX condenser VCD1	Flash Tank emissions route to low pressure inlet, still vent to BTEX condenser, BTEX condenser to VCD1 100% Capture, 98% DRE	VOC, HAPs, and CO _{2e}	Dehy	Yes – VOC and CO _{2e} No - HAPs
FL1 and FL2 See control description	GCP, pipeline quality natural gas for pilot, limitations on flaring events	NO _x , CO, PM ₁₀ , PM _{2.5} , SO ₂	FL1 and FL2	Yes
FL1 and FL2 See control description	GCP, limitations on flaring events, 40 CFR 60.18	VOC and CO _{2e}	FL1 and FL2	Yes
See control description FL3	GCP, pipeline quality natural gas for pilot, 40 CFR 60.18	NO _x , CO, PM ₁₀ , PM _{2.5} , SO ₂ VOC and CO _{2e}	FL3	Yes
See control description SSM(CB) & SSM(PV)	Reduce number and duration of venting due to routine or predictable startup, shutdown, and maintenance per 20.2.7 NMAC plan	VOC and H ₂ S	SSM (CB) & SSM (PV)	Yes - VOC No - H ₂ S
FUGLDAR	LDAR (leak detection and repair)	VOC and CO _{2e}	FUG	Yes

Control Equipment Unit No.	Control Description	Pollutant(s) being controlled	*Control for Unit Number(s) in Table 104	Required for BACT
Low NOx burners and GCP H1, H3 through H6	Low NOx burners and GCP	NOx	H1, H3 through H6	Yes
H1, H3 through H6 GCP	GCP	CO, VOC	H1, H3 through H6	Yes
See control description H1, H3 through H6	Pipeline quality natural gas	SOx	H1, H3 through H6	Yes
See control description H1, H3 through H6	GCP and pipeline quality natural gas	PM10, PM2.5, CO2e	H1, H3 through H6	Yes
See control description HA UL	Paved surface	TSP, PM10, PM2.5	HAUL	Yes – PM10, PM2.5 No - TSP
L1 and VCD1	Submerged loading and vented to VCD1 100% Capture, 98% DRE	VOC and CO2e	L1	Yes
TK-2100, TK-2200, TK-6100, TK-6150, and See control description VC D1	Fixed roof tank with blanket gas; submerged fill pipe; vented to VCD1 100% Capture, 98% DRE	VOC and CO2e	TK-2100, TK-2200, TK-6100, TK-6150	Yes
Fuel GCP	GCP	NOx and CO	VCD1	Yes
Fuel GCP	40 CFR 60.482-10a(e) GCP	VOC	VCD1	Yes
Fuel GCP	GCP and pipeline quality natural gas	CO2e	VCD1	Yes
CT-1 Drift Eliminator	High efficiency drift eliminator with 0.005% drift rate	PM10, and PM2.5	CT-1	Yes
Drift Eliminator CT-2	High efficiency drift eliminator with 0.005% drift rate	PM10, and PM2.5	CT-2	Yes
Fuel ULSD Fuel	Ultra low sulfur diesel fuel of 15 ppmv	SO2	GEN-1	Yes
GEN-1 See control description	GCP, NOx, CO, PM – Meet 40 CFR 60, Subpart III emission standards CO2e – Limit to 500 hrs/yr	CO, VOC, PM10, and PM2.5 (for CO2e GCP only)	GEN-1	Yes

Control Equipment Unit No.	Control Description	Pollutant(s) being controlled	*Control for Unit Number(s) in Table 104	Required for BACT
See control description GE N-1	GCP, Integral Turbocharged & Charge Air Cooled; NOx, CO, PM – Meet 40 CFR 60, Subpart IIII emission standards CO2e – Limit to 500 hrs/yr	NOx	GEN-1	Yes

* Unit numbers are in alphabetical order.

1. AGI means acid gas injection well.
2. DRE means destruction rate efficiency.
3. AFR means integrated air fuel ratio controller.
4. GCP means good combustion practices.
5. Pipeline quality natural gas = natural gas with no more than 5 gr total Sulfur/100 dscf and after processing through the inlet separator, amine unit, and TEG dehydrator to remove impurities.

A106 Facility: Allowable Emissions

- A. The following Section lists the emission units and their allowable emission limits, not including emission limits in Section A107. (40 CFR 50; 40 CFR 60, Subparts A, Dc, IIII, JJJJ, and OOOO; 40 CFR 63, Subparts A, DDDDD, and ZZZZ; 20.2.61 NMAC; 20.2.72.210.A and B.1 NMAC; and 20.2.74 NMAC).

Table 106.A: Allowable PPH and TPY Emissions. Refer to Tables 106.B and 107.A for additional unit specific BACT Emission Limits														
Unit No.	NOx ¹ pph	NOx ¹ tpy	CO pph	CO tpy	VOC pph	VOC tpy	SO ₂ pph	SO ₂ tpy	TSP ⁶ pph	TSP ⁶ tpy	PM ₁₀ pph	PM ₁₀ tpy	PM _{2.5} pph	PM _{2.5} tpy
Amine ³	⁻²	-	-	-	0.0	0.0	-	-	-	-	-	-	-	-
C1-E	5.2	22.9	0.5	2.4	2.0	8.9	0.5	2.0	0.3	1.4	0.3	1.4	0.3	1.4
C2-E	5.2	22.9	0.5	2.4	2.0	8.9	0.5	2.0	0.3	1.4	0.3	1.4	0.3	1.4
C3-E	5.2	22.9	0.5	2.4	2.0	8.9	0.5	2.0	0.3	1.4	0.3	1.4	0.3	1.4
C4-E	5.2	22.9	0.5	2.4	2.0	8.9	0.5	2.0	0.3	1.4	0.3	1.4	0.3	1.4
C5-E	5.2	22.9	0.5	2.4	2.0	8.9	0.5	2.0	0.3	1.4	0.3	1.4	0.3	1.4
C6-E	5.2	22.9	0.5	2.4	2.0	8.9	0.5	2.0	0.3	1.4	0.3	1.4	0.3	1.4
C7-E	5.2	22.9	0.5	2.4	2.0	8.9	0.5	2.0	0.3	1.4	0.3	1.4	0.3	1.4
C8-E	5.2	22.9	0.5	2.4	2.0	8.9	0.5	2.0	0.3	1.4	0.3	1.4	0.3	1.4

Table 106.A: Allowable PPH and TPY Emissions. Refer to Tables 106.B and 107.A for additional unit specific BACT Emission Limits

Unit No.	NO _x ¹ pph	NO _x ¹ tpy	CO pph	CO tpy	VOC pph	VOC tpy	SO ₂ pph	SO ₂ tpy	TSP ⁶ pph	TSP ⁶ tpy	PM ₁₀ pph	PM ₁₀ tpy	PM _{2.5} pph	PM _{2.5} tpy
C9-E	2.6	11.4	0.9	4.6	1.6	6.9	0.2	1.0	0.2	0.7	0.2	0.7	0.2	0.7
C10-E	2.6	11.4	0.9	4.6	1.6	6.9	0.2	1.0	0.2	0.7	0.2	0.7	0.2	0.7
Dehy ³	-	-	-	-	0.0	0.0	-	-	-	-	-	-	-	-
FUG	-	-	-	-	*4	31.5	-	-	-	-	-	-	-	-
H1	1.3	5.6	2.1	9.4	0.1	0.6	0.4	1.6	0.2	0.9	0.2	0.9	0.2	0.9
H3	0.5	2.1	0.9	3.6	0.05	0.2	0.1	0.6	0.08	0.3	0.08	0.3	0.08	0.3
H4	5.9	26.0	4.1	17.8	0.6	2.3	1.4	6.2	0.7	3.2	0.7	3.2	0.7	3.2
H5	5.9	26.0	4.1	17.8	0.6	2.3	1.4	6.2	0.7	3.2	0.7	3.2	0.7	3.2
H6	0.2	0.8	0.3	1.3	0.02	0.08	0.05	0.2	0.03	0.1	0.03	0.1	0.03	0.1
HAUL	-	-	-	-	-	-	-	-	0.4	0.3	0.08	0.05	0.02	0.01
L1 ³	-	-	-	-	0.0	0.0	-	-	-	-	-	-	-	-
VCD1	0.2	1.1	0.2	0.9	1.8	7.7	-	-	-	-	-	-	-	-
FL3 ⁵	0.2	0.7	0.8	3.7	0.01	0.05	-	-	-	-	-	-	-	-
CT-1	-	-	-	-	-	-	-	-	0.002	0.008	5.0E-5	0.002	5.2E-7	2.3E-6
CT-2	-	-	-	-	-	-	-	-	0.001	0.004	2.6E-5	0.0001	2.7E-7	1.2E-6
GEN-1	0.5	0.1	0.6	0.1	0.023	0.007	1.3E-6	3.2E-7	0.050 04	0.010 009	0.050 04	0.010 009	0.050 04	0.010 009
TK-2100, TK-2200	-	-	-	-	*4	0.0	-	-	-	-	-	-	-	-
TK-6100, TK-6150	-	-	-	-	*4	0.0	-	-	-	-	-	-	-	-

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

2 “-” indicates the application represented emissions of this pollutant are not expected.

3 Amine unit, Dehydrator, L1, and Tank emissions are controlled 100%.

4 * indicates that pph emission limits are not appropriate for this unit.

5 Pilot and purge emissions only

Note: For Title V facilities, the Title V annual fee assessments are based on the sum of allowable tons per year emission limits in Sections A106 and A107.

6 Total Suspended Particulates (TSP), as defined at 20.2.2.7.AP NMAC, by regulation includes only filterable particulate matter and does not include condensable particulate matter.

Table 106.B: BACT Emission Limits In Addition to those in Table 107.A							
Unit No.	NO _x ¹ g/bhp-hr	CO g/bhp-hr	VOC g/bhp-hr	SO ₂ ²	PM ₁₀ lb/MMBtu	PM _{2.5} lb/MMBtu	CO _{2e} tpy
C1-E	0.5	0.05	0.2	P ²	0.00999	0.00999	16,038.516 ,029
C2-E	0.5	0.05	0.2	P	0.00999	0.00999	16,038.516 ,029
C3-E	0.5	0.05	0.2	P	0.00999	0.00999	16,038.516 ,029
C4-E	0.5	0.05	0.2	P	0.00999	0.00999	16,038.516 ,029
C5-E	0.5	0.05	0.2	P	0.00999	0.00999	16,038.516 ,029
C6-E	0.5	0.05	0.2	P	0.00999	0.00999	16,038.516 ,029
C7-E	0.5	0.05	0.2	P	0.00999	0.00999	16,038.516 ,029
C8-E	0.5	0.05	0.2	P	0.00999	0.00999	16,038.516 ,029
C9-E	0.5	0.175	0.3	P	0.00999	0.00999	10,101
C10-E	0.5	0.175	0.3	P	0.00999	0.00999	10,101
GEN-1	3.3	3.7	0.18	U ³	0.3g/hp-hr		28
Table 106.B: BACT Emission Limits							
Unit No.	NO _x lb/MMBtu	CO lb/MMBtu	VOC lb/MMBtu	SO ₂ ²	PM ₁₀ lb/MMBtu	PM _{2.5} lb/MMBtu	CO _{2e} lb/MMBtu
H1	0.049	0.082	0.0054	P	0.0075	0.0075	117
H3	0.049	0.082	0.0054	P	0.0075	0.0075	117
H4	0.06	0.041	0.0054	P	0.0075	0.0075	117
H5	0.06	0.041	0.0054	P	0.0075	0.0075	117
H6	0.049	0.082	0.0054	P	0.0075	0.0075	117
	<u>NO_x</u> <u>lb/MMBtu</u>	<u>CO</u> <u>lb/MMBtu</u>	<u>DRE VOC</u> <u>DRE</u>	<u>SO₂²</u>	<u>PM₁₀</u> <u>lb/MMBtu</u>	<u>PM_{2.5}</u> <u>lb/MMBtu</u>	<u>DRE CO_{2e}</u> <u>lb/MMBtu</u>
VCD1	0.098	0.082	0.21 98.0%	P	- ⁴	-	117

Table 106.B: BACT Emission Limits	
Unit No.	CO _{2e} tpy BACT
SSM FL1	1404 for pilot and purge
SSM FL2	1292 for pilot and purge

- 1 Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO₂ and g/bhp-hr stands for grams per brake horsepower hour.
- 2 Pipeline (P) quality natural gas defined as: 5 grains of total sulfur/100 dscf of natural gas and after processing through the inlet separator, amine unit, and TEG dehydrator to remove impurities. Applies to all combustion units (C1-E to C10-E; H1 to H6; FL1 and FL2 pilot and purge gas; and the VCD1).
- 3 "U" means ultra low sulfur diesel (defined as 15 ppm or less sulfur)
- 4 "-" indicates no unit/pollutant specific BACT emission limit applies.

B. Units C1-E to C10-E (RICE engines):

- (1) Nitrogen oxides (NO_x) emissions shall not exceed 1.0 g/hp-hr (or 82 ppmvd at 15 percent oxygen) per 40 CFR 60, Subpart JJJJ, Table 1.
- (2) Carbon monoxide (CO) emissions shall not exceed 2.0 g/hp-hr (or 270 ppmvd at 15 percent oxygen) per 40 CFR 60, Subpart JJJJ, Table 1.
- (3) Volatile organic compound (VOC) emissions shall not exceed 0.7 g/hp-hr (or 60 ppmvd at 15 percent oxygen) per 40 CFR 60, Subpart JJJJ, Table 1.

C. Units C1-E to C10-E (RICE engines) are subject to National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart ZZZZ emission standards at 40 CFR 63.6600(b), Tables 2a and 2b.

D. Diesel Fired Emergency Generator Unit GEN-1 is subject to New Source Performance Standards (NSPS) at 40 CFR 60, Subpart IIII. The unit is required to meet the NO_x + NMHC, CO, and PM standards at 40 CFR 60.4202(a)(2). These NO_x + NMHC, CO, and PM standards are also PSD BACT limits. The unit demonstrates compliance with 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII.

E. Unit FUG, including all equipment, except compressors, within a process unit shall not exceed volatile organic compound (VOC) equipment leak detection standards (500 ppm) according to 40 CFR 60, Subpart OOOO (60.5400).

F. Compressors C1-C through C10-C, C14-C, and C15-C are subject to emission standards at 40 CFR 60.5385.

G. Heaters H1, H3, H4, and H5 are subject to 40 CFR 63, Subpart DDDDD emissions standards specified in 63.7540(a)(10). Heater H6 is subject to the emissions standards at 63.7500(e) and 63.7540(a)(12).

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

A. The maximum allowable emissions limits due to routine or predictable startup, shutdown, and/or maintenance (SSM) for this facility are listed in Table 107.A and were relied upon by the Department to determine compliance with applicable regulations. The allowable limits for FL2 in Table 107.A include compressor and associated piping blowdowns during Routine or Predictable Startup, Shutdown, and/or Maintenance (SSM).

Table 107.A: Allowable SSM Emission Limits and Pilot and Purge Emission Limits											
Unit No.	NO _x ¹ pph BACT ²	NO _x ¹ tpy	CO pph BACT	CO tpy	VOC pph BACT	VOC tpy	SO ₂ pph BACT	SO ₂ tpy	H ₂ S pph	H ₂ S tpy	CO _{2e} tpy BACT ²
SSM FL1 ³	799.2	3.9	4348.8	21.1	2942.1	11.8	14977.1	59.9	162.9	0.7	6518 for SSM
SSM FL2 ³	102.0	1.2	554.8	6.5	7.8	0.09	4409.8	22.0	48.0	0.2	1094 ⁴ for SSM
SSM Compressor Blowdown SSM(CB)	-	-	-	-	358.8	0.8	-	-	-	-	15
SSM Plant Venting SSM(PV)	-	-	-	-	1500.0	12.0	-	-	-	-	3355

- 1 Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO₂.
- 2 Pound per hour limits for NO_x, CO, VOC, and SO_x and the ton per year limit for CO_{2e} are PSD BACT limits for units FL1, FL2, and SSM Compressor Blowdown and Plant Venting.
- 3 Allowable SSM emission limits for FL1 and FL2 for all pollutants include pilot and purge emissions, except for CO_{2e} which has separate emission limits for SSM and pilot and purge. Emission limits for pilot and purge appear in Table 106B
4. SSM for FL2 includes assist gas and acid gas (not pilot or purge)

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

C. SSM Flaring Emissions (FL1 and FL2)

Requirement: The permittee shall perform a gas analysis including total sulfur on each flare gas stream (FL1 and FL2), quarterly and complete the following recordkeeping to demonstrate

compliance with routine or predictable startup, shutdown, and maintenance (SSM) emission limits in Table 107.A.

Monitoring:

(1) The permittee shall monitor the permitted routine or predictable startups and shutdowns and scheduled maintenance events.

(2) A gas flowmeter and flow totalizer, equipped with a chart recorder or data logger (electronic storage), shall be installed in each flare line to measure and record the total standard cubic feet (scf) of gas sent to each flare during each hour and each month.

(3) The permittee shall measure the H₂S content, the total sulfur content, the VOC content, the CH₄ content, the CO₂ content, and the heating value (Btu/scf) of the gas sent to each flare for combustion. H₂S shall be measured at least quarterly as part of a quarterly gas analysis including total sulfur for each gas stream (FL1 and FL2). The total sulfur content, VOC content, CH₄, CO₂, and heating value (Btu/scf) of the natural gas sent to each flare shall be measured at least quarterly with a gas analysis including total sulfur on the flared sour gas (FL2), and flared residue and inlet streams (FL1).

(4) The flow meter and totalizer shall be operated, calibrated, and maintained as specified by the manufacturer or equivalent and as necessary to ensure correct and accurate readings.

Recordkeeping:

(1) The following records shall be kept:

- quarterly gas analyses including total sulfur that shall also include H₂S
- hourly and monthly flowmeter and flow totalizer measurements of gas sent to each flare (FL1 and FL2)

(2) Each month, the permittee shall use the most recent required sampling to record and summarize in a table format the following information for gas sent to each flare:

- H₂S and the total sulfur content
- percent VOC, CH₄, and CO₂ content
- gas heating value (Btu/scf)
- the hourly gas flow rates (scf/hr)
- the hourly gas flow rate (scf/hr) for any hours that exceeded any pph emission limit during the month
- the total month's scf of gas sent to each flare
- during the first 12-months of monitoring, the cumulative total of gas sent to each flare (scf/yr)
- after the first 12-months of monitoring, the monthly rolling 12-month total of gas sent to each flare (scf/yr)

(3) Each month, the permittee shall record all routine and predictable startups, shutdowns, and scheduled maintenance events for the facility, for each flare gas stream (FL1 and FL2), and shall also meet the recordkeeping requirements in General Condition B109 of this permit, except the

requirement to record the start and end times of SSM events shall not apply.

(4) Records of flowmeter, totalizer, calibrations performed according to manufacturer's specifications, breakdowns, reasons for breakdown, and corrective actions taken shall be maintained.

(5) Each month to demonstrate compliance with emission limits in Table 107.A, the permittee shall calculate and summarize the pph emission rates, any pph emission rate exceeding the permitted limits, and the ton per year emission rates of NO_x, CO, VOC, SO₂, H₂S, and CO_{2e} using the following information for gas sent to each flare (FL1 and FL2):

- the H₂S content, total sulfur content, VOC content, CH₄, CO₂, and the gas heating value (MMBtu/scf) from the most recent H₂S measurements and gas analyses
- the emission factors used to calculate NO_x, CO, and CO_{2e}
- the maximum hourly gas flow rate (scf/hr)
- the hourly gas flow rate (scf/hr) for any hours that exceeded any pph emission limit during the month
- during the first 12 months of monitoring, the cumulative total of gas sent to each flare
- after the first 12-months of monitoring, the monthly rolling 12-month total of gas sent to each flare (scf/yr)

(6) The permittee shall also maintain all raw data in accordance with Section B110.

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

D. SSM Direct Venting Emissions (Units SSM(CB) and SSM(PV))

Requirement: The permittee shall perform an analysis on the vented gas once every year and complete the following recordkeeping to demonstrate compliance with routine or predictable startup, shutdown, and maintenance (SSM) emission limits in Table 107.A.

Emissions Due to Preventable Events-Emissions that are due entirely or in part to poor maintenance, careless operation, or any other preventable equipment breakdown shall not be included under the SSM emission limits. These emissions shall be reported as excess emissions in accordance with 20.2.7.110 NMAC.

Monitoring: The permittee shall monitor the permitted routine or predictable startups and shutdowns and scheduled maintenance events.

Recordkeeping: To demonstrate compliance, each month records shall be kept of the cumulative total of VOC emissions due to units SSM(CB) and SSM(PV) during the first 12 months and, thereafter of the monthly rolling 12 month total of VOC emissions.

Records shall also be kept of the gas analysis, the percent VOC of the gas based on the most recent gas analysis and of the volume of total gas vented in MMscf used to calculate the VOC emissions.

The permittee shall record the demonstrated compliance in accordance with Condition B109, except the requirement in B109.C to record the start and end times of SSM events shall not apply to the venting of known quantities of VOC.

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

E. BACT Requirements for SSM events (FL1, FL2, SSM(CB), and SSM(PV))

Requirement:

(1) Emissions that are due entirely or in part to malfunctions, poor maintenance, careless operation, or any other preventable equipment breakdown shall not be included under the SSM emission limits. These emissions shall be reported as excess emissions in accordance with 20.2.7.110 NMAC.

(2) The permittee shall minimize the frequency, duration, and quantities of air emissions during routine or predictable startup, shutdown, and scheduled maintenance (SSM). This shall be done by creating, updating, and implementing the plan required by 20.2.7.14 NMAC which, at a minimum, shall include work practice standards and good air pollution control practices with the goal of minimizing emissions during SSM events.

Monitoring:

(1) The plan required by 20.2.7.14 NMAC shall include a description of the parameters that are necessary to monitor to ensure emissions during SSM are minimized.

(2) The permittee shall complete these monitoring activities with enough frequency to ensure compliance with the plan requirements.

Recordkeeping:

(1) The plan required by 20.2.7.14 NMAC shall include recordkeeping that ensures the monitoring activities are documented and to confirm that the work practice standards and good air pollutant control practices in the plan are met.

(2) The permittee shall keep the plan records and shall meet the recordkeeping requirements in Section B109.

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

A108 Facility: Operating Hours and Limits on Capacity

A. Except for limits on operating hours for emergency generator GEN-1, this facility is authorized for continuous operation. Monitoring, recordkeeping, and reporting are not required to demonstrate compliance with continuous hours of operation.

B. Limit on Gas Plant Inlet

Requirement: To demonstrate compliance with the emission limits in Table 106.A and BACT limits in Table 106.B, the permittee shall limit the volumetric flowrate to the facility inlets to no more than a maximum capacity of 230 MMscf/day of natural gas.

Monitoring: No monitoring is required. Compliance is demonstrated through recordkeeping.

Recordkeeping: The permittee shall continuously monitor the daily volumetric flowrate to the facility inlets using gas flowmeter(s) and flow totalizer(s) that are equipped with a chart recorder or data logger (electronic storage).

The flow meter and totalizer shall be operated, calibrated, and maintained as specified by the manufacturer or equivalent and as necessary to ensure correct and accurate readings.

Reporting: 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 - Pipeline Quality Natural Gas

- A. Fuel and Fuel Sulfur Requirements: Units C1-E to C10-E, H1 to H6, VCD1, and the pilot/purge/supplemental fuel for Flares (Units FL1, FL2, and FL3)

Requirement:

(1) To demonstrate compliance with the PM_{2.5}, PM₁₀, SO₂, and CO_{2e} pph, tpy, and BACT emission limits in Tables 106.A, 106.B, and 107.A, all listed combustion emission units shall combust only pipeline quality natural gas containing no more than 5.0 grains of total sulfur per 100 dry standard cubic feet.

(2) For the purposes of this permit, pipeline quality natural gas is defined as having no more than 5 gr total sulfur/100 dscf and processed through the inlet separator, amine unit, and TEG dehydrator to remove impurities (or equivalent if fuel gas is received from outside the plant). If fuel gas is received from outside the facility the permittee shall maintain records of a current, valid purchase contract, tariff sheet or transportation contract for the fuel gas purchased, including fuel gas analysis specifying the fuel meets the defined sulfur content and processing requirements.

Monitoring: Monitoring is not required. Compliance is demonstrated through recordkeeping.

Recordkeeping: The permittee shall demonstrate compliance with the pipeline quality natural gas limit on total sulfur content by maintaining records of fuel gas analyses, specifying the total sulfur content. The analyses shall not be older than six months or if purchased, a valid purchase contract not older than one year.

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

A111 Facility: 20.2.61 NMAC Opacity

- A. 20.2.61 NMAC Opacity Limits (Combustion Emission Sources except GEN-1)

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

Monitoring: Use of natural gas fuel constitutes compliance with 20.2.61 NMAC unless opacity equals or exceeds 20% averaged over a 10-minute period. When any visible emissions are observed during operation other than during startup mode, opacity shall be measured over a 10-

minute period, in accordance with the procedures at 40 CFR 60, Appendix A, Reference Method 9 (EPA Method 9) as required by 20.2.61.114 NMAC, or the operator will be allowed to shut down the equipment to perform maintenance/repair to eliminate the visible emissions. Following completion of equipment maintenance/repair, the operator shall conduct visible emission observations following startup in accordance with the following procedures:

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

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

~~As stated in General Condition B108.G, this additional monitoring shall become effective 120 days after issuance of permit PSD-5217M1R2.~~

Recordkeeping: If no visible emissions were observed, none.

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

- For any visible emissions observations conducted in accordance with EPA Method 22, record the information on the form referenced in EPA Method 22, Section 11.2.

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

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

A112 Facility: Haul Roads

A. Haul Road Control (Unit HAUL)

Requirements: The haul road shall be paved, maintained, and cleaned as necessary to reduce the amount of dust on the road. This requirement is to demonstrate compliance with the TSP, PM10, and PM2.5 (pph and tpy) emission limits in Table 106.A and the BACT control requirements in Table 105 for unit HAUL.

Monitoring: Once each year the permittee shall inspect roads to determine if the roads are paved and have not eroded. The inspection shall also be used to determine if the road surfaces need any recommended maintenance.

Recordkeeping: The permittee shall record the dates of annual inspections, including a record of any road maintenance, cleaning, or road repair that results from the inspection. The records shall include the date, time, quantity, and location(s) of the measures taken.

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

A113 Requirements - Unit Removals and Facility Shutdown (Units C11-E to C13E and Lusk Booster Station)

- A. Coordination of startup of Zia II Gas Plant and the closure of the Lusk Booster Station, except Unit FL3

Requirement: The inlet compressors at DCP's Zia II Gas Plant replace DCP's existing Lusk Booster Station's compressor capacity, permitted under New Source Review (NSR) Permit No. 355-M7 and Title V Permit No. P093R3.

Except for the pilot and purge gas from the Lusk Booster Station Flare, the combustion sources at the Lusk Booster Station were not included in the ambient impact analyses for the Zia II Gas Plant. Therefore, to demonstrate compliance with state and federal ambient air quality standards, except for the Lusk Booster Station Flare, all of DCP's Lusk Booster Station combustion sources listed in Table 104 of its permits were required to shall cease operating within 60 days of startup of any regulated combustion source listed in Table 104 of the Zia II Gas Plant permit. Startup is defined at C101.Q.

The Lusk Booster Station Flare will be used by the Zia II Gas Plant as an emergency flare, therefore it is-was transferred to the Zia II Gas Plant permit as reflected in the application. The flare is designated in the Zia II Gas Plant permit as Unit FL3, Lusk Emergency Flare.

Monitoring: Monitoring is not required. Compliance is demonstrated through recordkeeping.

Recordkeeping: The permittee shall keep records of the startup date and unit number(s) of the regulated unit(s) at DCP's Zia II Gas Plant and the date that all regulated combustion equipment at the Lusk Booster station, except for the flare, hads ceased operations.

Reporting: Unless already submitted, within 15 days of the date that all regulated Lusk combustion equipment ceases operations, the permittee shall submit to the Compliance and Enforcement Section Manager, the startup date and unit number(s) of the regulated unit(s) at DCP's Zia II Gas Plant and the date that all regulated combustion equipment at the Lusk Booster station, except for the flare, has ceased operations.

As required by this condition in Permit Number PSD5217, the permittee submitted Within 120 days of startup of any regulated unit at DCP's Zia II Gas Plant, DCP shall submit to the Permit Programs Manager a request to cancel the Lusk Booster Station NSR and Title V permits on January 13, 2016 (20.2.70.400.I NMAC).

~~Removal of Compressor Engines and Reduction of Heater Capacity (Units C11-E to C13 E; H2, and H4 H5)~~

~~**Requirement:** This condition specifieds deadlines required by the permittee to remove regulated equipment from its permit or to reduce the permitted capacity of regulated units to ensure compliance with any federally enforceable emissions reductions required by the current air quality permit number PSD-5217-M1.~~

~~In accordance with representations in the application for permit number PSD-5217-M1, removed from the Zia II Gas Plant air quality permit is the authority to construct and operate~~

~~compressor engines C11-E through C13-E and heater H2. The permit also reduced the allowable capacities of heaters H4 and H5 from 114 to 99 MMBtu/hr.~~

~~In accordance with application for PSD5217 M1, engines C11-E to C13-E were never constructed, heaters H4 and H5 never had a capacity over 99 MMBtu/hr, and these removed units and higher capacities were not included in the ambient impact analysis for the revised permit PSD-5217-M1.~~

~~**Monitoring:** Monitoring is not required. Compliance is demonstrated through recordkeeping.~~

~~**Recordkeeping:** The permittee shall keep records of H4 and H5 that can be used to verify the actual maximum capacities of the units and shall meet the recordkeeping requirements in section B109.~~

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

EQUIPMENT SPECIFIC REQUIREMENTS

OIL AND GAS INDUSTRY

A200 Oil and Gas Industry

A. This section has common equipment related to most Oil and Gas Operations.

A201 Engines and Compressors

A. Initial Compliance Tests NO_x, CO, TSP, PM₁₀, and PM_{2.5} (Units C1-E through C10-E)

Requirement: The permittee shall demonstrate compliance with the allowable NO_x, CO, VOC, TSP, PM₁₀, and PM_{2.5} (pph and tpy) emission limits in Table 106.A and the BACT limits in Table 106.B by completing the following initial compliance testing on engines C1-E to C10-E.

These initial compliance test requirements are carried forward from permit numbers PSD5217 issued 4-24-14 and PSD5217M1 issued 12-21-15 and are not re-imposed by this condition. The testing requirements in this condition are required only if they have not already been completed or are re-imposed in accordance with Condition A100.A.

- (1) EPA Reference Method Tests for NO_x and CO, listed in Condition B111.B, shall be completed on each engine.
- (2) Compliance with the CO emission limits shall be deemed to demonstrate compliance with the VOC emission limits.
- (3) EPA Reference Method Tests for TSP and condensable particulate matter (CPM) listed in Condition B111.B shall be completed on at least 3 of Units C1-E to C8-E and on at least 3 of Units C9-E to C10-E.

(4) Test results for filterable TSP and CPM shall be combined to verify compliance with allowable PM10 and PM2.5 emission limits in Table 106.A and with the PM10 and PM2.5 BACT limits in Table 106.B. Only test results for filterable particulate matter shall be used to demonstrate compliance with the TSP emission limits.

(5) The tests required for TSP and CPM shall be extended to 2-hour test runs to ensure accurate samples are obtained.

(6) Tests shall be completed in accordance with Section B111 of this permit, including the timeframe(s) according to B111.A(2).

Monitoring: The permittee shall monitor all parameters necessary to meet the recordkeeping requirements of this condition.

Recordkeeping:

(1) During each NO_x and CO test run, records shall include at a minimum the following information measured during the test, the operating horsepower (hp) during testing, the lb/hr emission rate, the g/hp-hr emission rate, and all parameters used to calculate emission rates.

(2) During each TSP and CPM test run, records shall include at a minimum the following information measured during the test run, the operating horsepower (hp) during testing, the lb/hr emission rate, the fuel heat value (Btu/scf), the fuel consumption (scf/hr), the lb per fuel heat rate (lb/MMBtu), and all parameters used to calculate the emission rates.

(3) The permittee shall use the most current gas analysis to determine the fuel heat value (Btu/scf) and measure the actual fuel flow rate to the engine during the test.

(4) All calculations used to determine emission rates shall be included with the test records.

(5) The permittee shall maintain records in accordance with the applicable Sections in B109, B110, and B111.

Reporting:

(1) The test report shall summarize the records required by this condition.

(2) The permittee shall report in accordance with the applicable Sections in B109, B110, and B111.

B. Periodic Testing NO_x and CO (Units C1-E through C10-E)

Requirement: The permittee shall demonstrate compliance with the allowable NO_x, CO, and VOC emission limits in Table 106.A and the BACT limit in Table 106.B by completing the following periodic stack testing on engines C1-E to C10-E.

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

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

For units with g/hp-hr emission limits, in addition to the requirements stated in Section B108, the engine load shall be calculated by using the following equation:

$$\text{Load(Hp)} = \text{Fuel consumption (scfh)} \times \text{Measured fuel heating value (LHV btu/scf)}$$

Manufacturer's rated BSFC (btu/bhp-hr) at 100% load or best efficiency

- (1) The monitoring period shall be quarterly. The quarterly monitoring period shall be defined as: January 1 to March 31; April 1 to June 30; July 1 to September 30; and October 1 to December 31.
- (2) The first test shall occur within the first monitoring period occurring after initial testing required in A201.A.
- (3) All subsequent monitoring shall occur in each succeeding monitoring period. No two monitoring events shall occur closer together in time than 25% of a monitoring period.
- (4) The permittee shall follow the General Testing Procedures of Section B111.
- (5) Performance testing required by 40 CFR 60, Subpart JJJJ or 40 CFR 63, Subpart ZZZZ may be used to satisfy these periodic testing requirements if they meet the requirements of this condition and are completed during the specified monitoring period.
- (6) The permittee shall monitor all parameters necessary to meet the recordkeeping requirements of this condition.

Recordkeeping:

- (1) During each NO_x and CO test run, records shall include at a minimum the following information measured during the test, the operating horsepower (hp) during the testing, the lb/hr emission rate, the g/hp-hr emission rate, and all parameters used to calculate emission rates.
- (2) All calculations used to determine emission rates shall be included with the test records.
- (3) All records of portable analyzer calibrations and certifications of calibration gases.
- (4) The permittee shall maintain records in accordance with Sections B109, B110, and B111.

Reporting:

- (1) The test report shall summarize the records required by this condition.
- (2) The permittee shall report in accordance with Sections B109, B110, and B111.

C. Fuel Flow Monitoring CO₂e (Units C1-E through C10-E)

Requirement: The permittee shall demonstrate compliance with the allowable CO₂e BACT limits in Table 106.B by completing fuel flow monitoring and calculations for engines C1-E to C10-E.

Monitoring:

- (1) To measure the monthly fuel consumption (scf/month) to each engine, a gas flowmeter and flow totalizer, equipped with a chart recorder or data logger (electronic storage) capable of recording hourly flow volumes, shall be installed in the fuel line to each engine.
- (2) The flow meter and totalizer shall be operated, calibrated, and maintained as specified by the manufacturer or equivalent and as necessary to ensure correct and accurate readings.

Recordkeeping:

The following records shall be kept:

- (1) the monthly flowmeter and flow totalizer measurements of fuel gas sent to each engine.
- (2) the fuel heating value (Btu/scf), CH₄, and CO₂ content of the natural gas sent to each engine obtained from the gas analyses required in A110.A.
- (3) the calculations used to determine the monthly CO₂e emissions using the methods in 40

CFR 98, Subpart C.

(4) during the first 12 months of monitoring, the cumulative ton per year (tpy) CO₂e emissions for each engine.

(5) after the first 12-months of monitoring, the monthly rolling 12-month total of CO₂e tpy emissions for each engine.

(6) Records of flowmeter, totalizer, and inline monitor certifications, calibrations performed according to manufacturer's specifications, breakdowns, reasons for the breakdown, and corrective actions taken shall be maintained.

(7) The permittee shall maintain records in accordance with Section B109.

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

D. Maintenance, Repair, and Good Combustion Practices (GCP) (Units C1-E through C10-E)

Requirement: To demonstrate compliance with the BACT limits in Table 106.B, the permittee shall meet the following Good Combustion Practices (GCPs).

(1) Each engine shall be a "new" engine based on engine technical data sheets provided in the permit application to the Department (engines shall be manufactured after August 9, 2011) and manufactured with an integrated air-fuel ratio controller (AFR) and ultra-lean burn and low NO_x technology.

(2) The permittee shall operate each engine at the combustion temperature recommended by the manufacturer.

(3) Each engine shall be maintained and tuned at least once per 12-months, or more frequently if recommended by the manufacturer.

(4) The permittee shall ~~submit, in an electronic format (CD),~~ meet the manufacturer's specifications and recommended maintenance and tune up requirements along with ~~its~~ written site specific inspection and maintenance protocol ~~which was submitted to~~ the Permit Programs Manager ~~pursuant to permit number PSD-5217-M1. within 3 months after all engines have started operating or PSD5217 M1 permit issuance, whichever is later. The 3 month deadline may be extended if the extension is approved in writing by the Department prior to the existing deadline.~~

~~(5) The permittee shall implement the site specific inspection and maintenance protocol within the time lines specified in Condition B108.G.~~

(6) To ensure on-going good combustion practice of the units, the permittee shall update the inspection and maintenance protocol as needed based on operational experience with the units.

Monitoring: At a minimum, the permittee shall complete the following monitoring according to the inspection and maintenance protocol:

(1) inspect the air to fuel ratio, oxygen range, and temperature at the frequency specified by the approved protocol and updates to the protocol

(2) complete additional monitoring according to protocol updates to the protocol.

Recordkeeping:

(1) The permittee shall maintain a copy of the manufacturer's engine specifications and recommended maintenance and tune-up requirements along with a written site specific

inspection and maintenance protocol.

(2) The permittee shall maintain records of the dates and the results of inspections of the air to fuel ratio, oxygen range, and temperature; and the tune ups and maintenance.

(3) The permittee shall maintain records in accordance with Section B109.

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

E. Oxidation Catalyst Operation (Units C1-E through C10-E)

Requirement: To demonstrate compliance with the CO and VOC emission limits in Table 106.A and 106.B, and meet the requirements of NSPS JJJJ and NESHAP ZZZZ, the permittee shall meet the following control requirements.

(1) The units C1-E through C10-E shall be equipped and operated with an oxidation catalyst to control CO, VOC, and HAP emissions.

(2) The permittee shall maintain the oxidation catalysts according to manufacturer's or supplier's recommended maintenance, including replacement of oxygen sensor as necessary for oxygen-based controllers.

Monitoring: The engines shall be operated with the oxidation catalysts at all times of operation, including during catalyst maintenance periods. During periods of catalyst maintenance, the permittee shall either (1) shut down the engine(s); or (2) replace the catalyst with a functionally equivalent spare to allow the engine to remain in operation.

Recordkeeping:

(1) The permittee shall maintain records of the manufacturer's or supplier's recommended maintenance, catalyst specifications, actions taken during periods of catalyst maintenance, and of the maintenance performed.

(2) The permittee shall maintain records in accordance with Section B109.

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

F. 40 CFR 60, Subpart JJJJ (Units C1-E through C10-E)

Requirement: The units ~~will be~~ subject to 40 CFR 60, Subparts A and JJJJ and the permittee shall comply with the notification requirements in Subpart A and the specific requirements of Subpart JJJJ.

Monitoring: The permittee shall comply with all applicable monitoring and testing requirements in 40 CFR 60, Subpart A and Subpart JJJJ, including but not limited to 60.4243.

Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart JJJJ, including but not limited to 60.4245.

Reporting: The permittee shall comply with all applicable reporting requirements in 40 CFR 60, Subpart A and Subpart JJJJ, including but not limited to 60.4245 and Section B110 of this permit.

G. 40 CFR 63, Subpart ZZZZ (Units C1-E through C10-E and GEN-1)

Requirement: The units ~~will be~~ subject to 40 CFR 63, Subparts A and ZZZZ and the permittee shall comply with any applicable notification requirements in Subpart A and any applicable requirements of Subpart ZZZZ.

Unit GEN-1 shall meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII (40 CFR 63.6590(c)(6)).
Monitoring: The permittee shall comply with all applicable monitoring and testing 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, and Section B110.

H. 40 CFR 60, Subpart IIII and BACT Requirements (Unit GEN-1)

Requirement: The unit is subject to 40 CFR 60, Subparts A and IIII and shall comply with the notification requirements in Subpart A and with the specific requirements of Subpart IIII. This unit is required to meet the NO _x , HC, NMHC+NO _x , CO and PM standards at 40 CFR 60.4202(a)(2).
Meeting the NO _x , CO, and PM emissions standards in 40 CFR 60, Subpart IIII are the BACT requirements for this unit (See Table 105).
The Subpart IIII standards cited are for emergency generators. As an emergency generator unit GEN-1 must meet the operational requirements in 60.4211(f)(1) through (f)(3).
To meet the Subpart IIII and BACT requirements, Unit GEN-1 shall combust only Diesel Fuel or No. 2 Fuel Oil and the sulfur content of the fuel shall not exceed 0.0015% sulfur by weight.
Monitoring: The permittee shall comply with all applicable testing and monitoring requirements in 40 CFR 60, Subpart A and Subpart IIII, including but not limited to 60.4211.
Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart IIII, including but not limited to 60.4214.
The permittee shall demonstrate compliance with the fuel oil 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. 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. If fuel gas analysis is used, the analysis shall not be older than one year.
Reporting: The permittee shall comply with all applicable reporting requirements in 40 CFR 60, Subpart A and Subpart IIII, including but not limited to 60.4214. The permittee shall also report in accordance with Section B110.

I. Operating Hour BACT Requirement (Unit GEN-1)

<p>Requirement: Unit GEN-1 is subject to a CO₂e BACT requirement in Table 105 which limits total operating time to 500 hours per 12 months. The permittee shall demonstrate compliance with this BACT requirement by meeting the following monitoring and recordkeeping.</p>
<p>Monitoring: The permittee shall monitor the operating hours of each unit with a non-resettable hour meter installed on each unit.</p>
<p>Recordkeeping: The permittee shall keep the following operating hour records: 1) During the first 12 months of monitoring, the cumulative total of operating hours per unit. 2) After the first 12 months of monitoring, the monthly rolling 12-month total operating hours per unit.</p>
<p>Reporting: The permittee shall report according to Section B110.</p>

J. 40 CFR 60, Subpart OOOO (Compressor Units C1-C through C10-C, C14-C, and C-15C)

<p>Requirement: The compressors are subject to 40 CFR 60, Subparts A and OOOO in accordance the applicability date in 40 CFR 60.5365 and the permittee shall comply with the notification requirements in Subpart A and the applicable requirements of Subpart OOOO, including standards in 60.5385.</p>
<p>Monitoring: The permittee shall comply with all applicable monitoring requirements in 40 CFR 60, Subpart A and Subpart OOOO, including but not limited to 60.5410 and 60.5415.</p>
<p>Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart OOOO, including but not limited to 60.5420.</p>
<p>Reporting: The permittee shall comply with all applicable reporting requirements in 40 CFR 60, Subpart A and Subpart OOOO, including but not limited to 60.5420, and Section B110.</p>

K. 20.2.61 NMAC Opacity Limit (Unit GEN-1)

<p>Requirement: Visible emissions from all emission stacks of all compression ignition engines shall not equal or exceed an opacity of 20 percent in accordance with the requirements at 20.2.61.109 NMAC.</p>
<p>Monitoring:</p> <p>(1) For emergency, standby, or limited use compression ignition engines, the permittee shall at least once every calendar year measure opacity on each Unit for a minimum of 10 minutes in accordance with the procedures of 40 CFR 60, Appendix A, Method 9. The permittee shall also measure opacity on a Unit's emissions stack when any visible emissions are observed during steady state operation.</p> <p>(2) Alternatively for any compression ignition engine, if visible emissions are observed during steady state operation, within 1 hour of seeing visible emissions, the permittee shall shut down the engine and perform maintenance and/or repair to eliminate the visible emissions. Following completion of equipment maintenance and/or repair, the permittee shall conduct visible emission observations following startup in accordance with the following procedures:</p> <ul style="list-style-type: none"> • Visible emissions observations shall be conducted over a 10-minute period during operation after completion of startup mode in accordance with the procedures at 40 CFR 60, Appendix A, Reference Method 22 (EPA Method 22). If no visible emissions are

observed, no further action is required.

- If any visible emissions are observed during completion of the EPA Method 22 observation, subsequent opacity observations shall be conducted over a 10-minute period, in accordance with the procedures at EPA Method 9 as required by 20.2.61.114 NMAC.

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

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

- For any visible emissions observations conducted in accordance with EPA Method 22, record the information on the form referenced in EPA Method 22, Section 11.2.
- For any opacity observations conducted in accordance with the requirements of EPA Method 9, record the information on the form referenced in EPA Method 9, Sections 2.2 and 2.4.

For each emergency, black start, and limited use compression ignition engine, the permittee shall also record the number of operating hours per year of each Unit and the reason for operating the unit.

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

L. Maintenance and Repair Monitoring (Unit GEN-1)

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by properly maintaining and repairing the unit in a manner consistent with good air pollution control practice for minimizing emissions in accordance with 40 CFR 60.4211(g)(1)

Monitoring: Maintenance and repair shall meet the minimum manufacturer's or permittee's recommended maintenance schedule and, if applicable, 40 CFR 60.4211 (g)(1).

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

The permittee shall also maintain records demonstrating that the Integral Turbocharged & Charge Air Cooled part of engine design (required in Table 105) is installed and shall meet all recordkeeping requirements at 60.4211(g)(1).

A202 Glycol Dehydrators

A. Control Device Inspection (Unit Dehy)

Requirement: To demonstrate compliance with the allowable VOC emission limits in Table 106.A and the BACT control requirements in Table 105, the permittee shall meet the following control requirements for Unit Dehy.

- (1) The flash tank vent shall be routed at all times to a process point that recycles the off-gas to the low pressure inlet stream and to be recompressed.
- (2) The still vent emissions shall be routed at all times to the condenser (BTEX condenser).
- (3) The TEG regenerator, flash tank, and condenser system shall be a closed vent system and be designed and operated so that no gases are vented or emitted directly to the atmosphere.
- (4) Non-condensables from the BTEX condenser shall be sent to the vapor combustion device (Unit VCD1) for destruction. The VCD1 shall be installed, operated, and maintained according to manufacturer's specifications and shall have a 98.0% or greater destruction rate efficiency (DRE) (monitoring according to Condition A211).

Monitoring: The permittee shall inspect the glycol dehydrator and the control equipment semi-annually to ensure all equipment components are operating as initially designed and in accordance with the manufacturer's recommended procedures.

Recordkeeping: The permittee shall record the results of all equipment and control device inspections chronologically, noting any maintenance or repairs needed to bring the dehydrator into compliance. The permittee shall maintain a copy of the manufacturer's maintenance recommendations.

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

B. 40 CFR 63, Subpart HH (Unit Dehy)

Requirement: The unit is subject to 40 CFR 63, Subpart HH and the permittee shall comply with all applicable requirements.

Monitoring: The permittee shall monitor as required by 40 CFR 63.772(b)(2) to demonstrate that the facility is exempt from general standards.

Recordkeeping: The permittee shall generate and maintain the records required by 40 CFR 63.774(d)(1)(ii) to demonstrate compliance with the general standard exemptions found in 40 CFR 63.764(e).

Reporting: The permittee shall meet all applicable reporting in 40 CFR 63, Subparts A and HH and in Section B110.

A203 Tanks and Truck Loading

A. Tank Operation (Units TK-2100, TK-2200, TK-6100, and TK-6150)

Requirement: To demonstrate compliance with the allowable VOC emission limits in Table 106.A and BACT control requirements in Table 105, the permittee shall meet the following requirements for the tanks.

(1) The condensate tank and produced water tank vents shall be routed at all times to the vapor combustion device (VCD1).

(2) No flash emissions from the condensate tanks TK-2100 and TK-2200 shall be permitted emitted directly to ~~escape to~~ the atmosphere. Flashing emissions shall be captured and managed prior to reaching the condensate tanks by- ~~Emissions shall be~~ routeding the emissions back to the low pressure inlet.

<p>(3) <u>Emissions from these fixed roof tanks shall have fixed roofs also be controlled</u> with blanket gas and <u>the tanks</u> shall be filled through a submerged fill pipe.</p>
<p>Monitoring: The permittee shall conduct the following monitoring on a semi-annual basis:</p> <p>(1) inspect the closed vent system to the flash gas stabilizer equipment to ensure that it is capturing all flash emissions prior to reaching the condensate tanks,</p> <p>(2) inspect each condensate tank and water tank vent and the closed vent system to ensure proper routing to the VCD1, and</p> <p>(3) inspect each tank, the VCD1, and associated piping for corrosion and gas leaks.</p> <p>(4) Although the tanks are not subject to NSPS OOOO, the leak detection monitoring required by 40 CFR 60, Subpart OOOO may be used to satisfy monitoring of the closed vent system for corrosion and gas leaks if they meet or exceed the requirements of this condition.</p>
<p>Recordkeeping:</p> <p>(1) The permittee shall maintain records of the tanks to include the following:</p> <p style="margin-left: 40px;">a) Tank capacity</p> <p style="margin-left: 40px;">b) Material stored</p> <p style="margin-left: 40px;">c) Fill pipe design</p> <p>(2) The permittee shall record the results of all semi-annual equipment inspections, and annual tank inspections chronologically, noting any maintenance or repairs needed to bring the condensate tanks, water tanks, and closed loop system into compliance with permit conditions.</p> <p>(3) Records shall also be maintained in accordance with Section B109.</p>
<p>Reporting: The permittee shall report in accordance with Section B110.</p>

B. Truck Loading - Condensate Loadout (Unit L1)

<p>Requirement: To demonstrate compliance with the allowable VOC (pph and tpy) emission limits in Table 106.A and the BACT control requirements in Table 105, the permittee shall meet the following control requirements:</p> <p>(1) Loadout to trucks shall occur through a submerged process to minimize off-gas vapors, and</p> <p>(2) a sleeve or vapor capturing device shall direct and route off-gas vapors during truck loadout to a vapor combustion device (VCD1) for destruction.</p>
<p>Monitoring:</p> <p>(1) The permittee shall monitor during each condensate truck load-out to ensure that the process meets the control requirements.</p> <p>(2) Semi-annually, the permittee shall inspect the closed vent system that routes the off-gases to the VDC1.</p>
<p>Recordkeeping:</p> <p>(1) The permittee shall record the dates of each loadout and maintain a checklist that verifies submerged loading and hook up to the closed vent system routing the off-gas vapors to the VDC1.</p> <p>(2) The permittee shall record the dates of and the closed vent system inspections, and any repairs needed.</p> <p>(3) Records shall also be maintained in accordance with Section B109.</p>
<p>Reporting: The permittee shall report in accordance with Section B110.</p>

A204 Heaters/Boilers**A. Maintenance, Repair, and Good Combustion Practices (GCP) (Units H1, H3 to H6)**

Requirement: To demonstrate compliance with allowable emission limits in Table 106.A and the BACT limits in Table 106.B, the permittee shall meet the following Good Combustion Practices (GCPs).

- (1) Heaters H1, H3, H4, H5, and H6 shall be fueled only by pipeline quality natural gas.
- (2) Each heater shall meet any guaranteed emission rates as provided by the manufacturer.
- (3) The permittee shall operate each heater at the combustion air temperature and excess combustion air (%) recommended by the manufacturer.
- (4) Each heater shall be maintained and tuned at least once per 12-months, or more frequently if recommended by the manufacturer or DCP maintenance process.
- (5) **For Heaters H1, H3, H4, H5 and H6:** The permittee shall ~~submit, in an electronic format (CD), meet~~ the DCP ~~maintenance process which becomes the required maintenance for these units along with a~~ written site specific inspection and maintenance protocol ~~to the Permit Programs Manager within 3 months of heater startup or PSD5217 M1 permit issuance, whichever is later. The 3 month deadline may be extended if the extension is approved in writing by the Department prior to the existing deadline.~~
- ~~(6) All submittal requirements in this condition shall be to the attention of the Permit Programs Manager.~~
- ~~(7) The permittee shall implement the proposed site specific inspection and maintenance protocol within the time lines specified in Condition B108.G.~~
- (8) To ensure on-going good combustion practice of the units, the permittee shall update the inspection and maintenance protocol as needed based on operational experience with the units.

Monitoring: The permittee shall complete the following monitoring according to the inspection and maintenance protocol:

- (1) Monitor the combustion air temperature and excess combustion air (%) at the frequency specified by the approved protocol, or more frequently as necessary.
- (2) Complete additional monitoring according to the approved protocol and updates to that protocol.

Recordkeeping:

- (1) The permittee shall maintain a copy of the manufacturer's heater specifications and recommended maintenance and tune-up requirements along with a written site specific inspection and maintenance protocol approved by the Department.
- (2) The permittee shall maintain a table that lists each heater unit number and each chapter and each section from the most current versions of the DCP maintenance process that applies to each heater.
- (3) The permittee shall maintain records of the dates and the results of maintenance and monitoring of the combustion air temperature and excess combustion air (%) and shall include the recommended or target temperature and excess combustion air, based on manufacturer's specifications and/or operational practice.
- (4) The permittee shall maintain records in accordance with Section B109.

Reporting: The permittee shall report in accordance with this condition and Section B110.
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B. Initial Compliance Test NO_x, CO, and VOC (Units H4 and H5)

Requirement: The permittee shall demonstrate compliance with the allowable NO _x , CO, and VOC emission limits in Table 106.A and the BACT limits in Table 106.B by completing the following initial compliance testing on heaters H4 and H5.
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These initial compliance test requirements are carried forward from permit numbers PSD5217 issued 4-24-14 and PSD5217M1 issued 12-21-15 and are not re-imposed by this condition. The testing requirements in this condition are required only if they have not already been completed or are re-imposed in accordance with Condition A100.A.

- (1) EPA Reference Method Tests for NO_x and CO, listed in Condition B111.B, shall be completed on each heater.
- (2) Compliance with the CO emission limits shall be deemed to demonstrate compliance with the VOC emission limits.
- (3) Tests shall be completed in accordance with Section B111 of this permit.

Monitoring: The permittee shall monitor all parameters necessary to meet the recordkeeping requirements of this condition.

Recordkeeping:

- (1) During each NO_x and CO test run, records shall include at a minimum the following information measured during the test run, the lb/hr emission rate, the fuel heat value (Btu/scf), the fuel consumption (scf/hr), the lb per fuel heat rate (lb/MMBtu), and all parameters used to calculate emission rates.
- (2) The permittee shall use the most current gas analysis to determine the fuel heat value (Btu/scf) and measure the actual fuel flow rate to that heater during the test.
- (3) Records shall include the stack gas temperature, the level of excess air, and the percent moisture.
- (4) All calculations used to determine emission rates shall be included with the test records.
- (5) The permittee shall maintain records in accordance with the applicable Sections in B109, B110, and B111.

Reporting:

- (1) The test report shall summarize the records required by this condition.
- (2) The permittee shall report in accordance with the applicable Sections in B109, B110, and B111.

C. Fuel Flow Monitoring CO₂e (Units H4 and H5)

Requirement: The permittee shall demonstrate compliance with the allowable CO ₂ e BACT limits in Table 106.B by completing fuel flow monitoring and calculations for heaters H4 and H5.

Monitoring:

- (1) To measure monthly fuel consumption (scf/month) to each heater, a gas flowmeter and flow totalizer, equipped with a chart recorder or data logger (electronic storage) capable of

<p>recording hourly flow volumes, shall be installed in the fuel line to each heater.</p> <p>(2) The flow meter and totalizer shall be operated, calibrated, and maintained as specified by the manufacturer or equivalent and as necessary to ensure correct and accurate readings.</p>
<p>Recordkeeping: The following records shall be kept:</p> <p>(1) The monthly flowmeter and flow totalizer measurements of fuel gas sent to each heater.</p> <p>(2) The fuel heating value (Btu/scf), CH₄, and CO₂ content of the natural gas sent to each heater obtained from the gas analyses required in A110.A.</p> <p>(3) The calculations used to determine the monthly CO₂e emissions using the methods in 40 CFR 98, Subpart C.</p> <p>(4) During the first 12 months of monitoring, the cumulative ton per year (tpy) CO₂e emissions for each heater.</p> <p>(5) After the first 12-months of monitoring, the monthly rolling 12-month total of CO₂e tpy emissions for each heater.</p> <p>(6) Records of flowmeter, totalizer, and inline monitor certifications, calibrations performed according to manufacturer's specifications, breakdowns, reasons for the breakdown, and corrective actions taken shall be maintained.</p>
<p>Reporting: The permittee shall report in accordance with Section B110.</p>

D. 40 CFR 60, Subpart Dc (Unit H1 H3, H4 and H5)

<p>Requirement: The unit(s) is subject to 40 CFR 60, Subpart Dc and the permittee shall comply with the applicable requirements of 40 CFR 60, Subpart A and Subpart Dc.</p>
<p>Monitoring:</p> <p>(1) The permittee shall demonstrate the facility is exempt from the SO₂ standard at 60.42c and monitoring at 60.46c by complying with Condition A110.</p> <p>(2) The permittee shall demonstrate the facility is exempt from the PM standard at 60.43c and monitoring at 60.47c by complying with Condition A110.</p>
<p>Recordkeeping: The permittee shall comply with the recordkeeping requirements of 40 CFR 60.48c.</p>
<p>Reporting: The permittee shall comply with the reporting requirements of 40 CFR 60.48c, and in Section B110.</p>

E. 40 CFR 63, Subpart DDDDD (Units H1, H3 through H6)

<p>Requirement: The units are subject to 40 CFR 63, Subpart DDDDD and the permittee shall comply with the applicable requirements of 40 CFR 63, Subpart A and Subpart DDDDD. Heaters H1, H3, H4, and H5 shall meet the emission standards at 63.7540(a)(10). Heater H6 shall meet the emission standards specified in 63.7500(e) and 63.7540(a)(12).</p>
<p>Monitoring: The permittee shall comply with all applicable monitoring and testing requirements of 40 CFR 63, Subpart DDDDD, including 63.7540(a)(10) for Units H1, H3, H4, and H5; and 63.7500(e), 63.7540(a)(11), and 63.7540(a)(12) for Unit H6.</p>
<p>Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 63.7555 and 63.7560.</p>
<p>Reporting: The permittee shall comply with the applicable notification and reporting</p>

requirements of 40 CFR 63.7545 and 63.7550, and in Section B110.

A205 Turbines – Not Required

A206 Flares

A. Good Combustion Practices (GCP) (Units FL1, FL2, and FL3)

Requirement: To demonstrate compliance with the allowable emission limits in Tables 106.A, 106.B, and 107.A, the BACT requirements in Table 105, and the 98% destruction rate efficiency (DRE) for VOCs and CH₄, the permittee shall comply with the following GCPs.

(1) The permittee shall conduct operational inspections, semi-annually (two times per 12-months), to determine that the flares (FL1, FL2, and FL3) are operating properly.

(2) **For Flare FL3:** The permittee shall ~~submit, in an electronic format (CD),~~ meet the DCP ~~maintenance process which becomes the required maintenance for these units along with a written site-specific inspection and maintenance protocol to the Permit Programs Manager within 3 months of heater startup or PSD5217 M1 permit issuance, whichever is later. The 3 month deadline may be extended if the extension is approved in writing by the Department prior to the existing deadline.~~ At a minimum, the protocol shall include and identify the methods for monitoring pilot flame temperature, proper residence time within the combustion area, and proper air mixing.

(3) **For Flares FL1 and FL2:** The permittee shall ~~submit, in an electronic format (CD), the meet the DCP maintenance process which becomes the required maintenance for these units along with a written site specific inspection and maintenance protocol to the Permit Programs Manager within 3 months of heater startup or PSD5217 M1 permit issuance, whichever is later. The 3 month deadline may be extended if the extension is approved in writing by the Department prior to the existing deadline.~~ At a minimum, the protocol shall include and identify the methods for monitoring pilot flame temperature, proper residence time within the combustion area, and proper air mixing.

(4) **For Flares FL1, FL2, and FL3:** ~~Within 3 months after all flares have started operating or after PSD5217 M1 permit issuance, whichever is later, the permittee shall keep records of provide a table that lists each flare unit number and each section of the DCP maintenance process that applies to each flare. Only the sections that affect regulated air emissions shall be listed. The 3 month deadline may be extended if the extension is approved in writing by the Department prior to the existing deadline.~~

~~(5) All submittal requirements in this condition shall be to the attention of the Permit Programs Manager.~~

~~(6) The permittee shall implement the proposed site specific inspection and maintenance protocol within the time lines specified in Condition B108.G.~~

(7) FL1, FL2, and FL3 shall comply with no visible emissions requirement at 40 CFR 60.18(c)(1), shall be operated with a flame present at all times in accordance with 40 CFR 60.18(c)(2), and shall comply with the heat content and maximum tip velocity specifications at 40 CFR 60.18(c)(3).

<p>(8) To ensure on-going good combustion practice of the units, the permittee shall update the inspection and maintenance protocol as needed based on operational experience with the units.</p>
<p>Monitoring: Inspections and visible emissions monitoring shall be conducted when FL1, FL2 and/or FL3 are operating.</p> <p>(1) The permittee shall conduct the semi-annual inspections according to the inspection protocol.</p> <p>(2) Semi-annually, the permittee shall determine the exit velocity in accordance with 40 CFR 60.18(f)(4) and flows as measured in Condition A107, and determine the net heating value according to Condition A107.C.</p> <p>(3) Semi-annually, during a planned maintenance event, the permittee shall perform an EPA Reference Method 22 test per 40 CFR 60, Subpart A to certify compliance with the no visible emission requirements. Each Method 22 test shall occur for the duration of the event or for 30 minutes, whichever is less. Visible emissions shall not occur for more than 5 minutes during any consecutive 30 minute period. For blowdown events that occur for less than 30 minutes, visible emissions shall not occur for more than 15% of the time during the duration of the blow down event.</p>
<p>Recordkeeping: The permittee shall keep the following records:</p> <p>(1) The permittee shall maintain a copy of the manufacturer's flare specifications and the inspection protocol.</p> <p>(2) The permittee shall maintain a table that lists each flare unit number and each section from the most current versions of the <u>DCP Midstream Preventative Maintenance and Inspections Guidelines and Practices</u> manual that applies to each flare. Only the sections that affect regulated air emissions shall be listed.</p> <p>(3) The dates, parameters inspected, the results of the inspections, and any repairs or adjustments needed as a result of the inspections.</p> <p>(4) The exit velocity, the net heating value, and the parameters and calculations used to determine these values.</p> <p>(5) The EPA Method 22 results.</p> <p>(6) The permittee shall also maintain records in accordance with Section B109.</p>
<p>Reporting: The permittee shall report according to Section B110.</p>

B. Pilot and Purge Emissions for CO₂e (FL1 and FL2)

<p>Requirement: The permittee shall demonstrate compliance with the tpy BACT limit for CO₂e in Table 106.B by measuring the pilot and purge gas flow rates and limiting the pilot and purge gas flow rates to 20.2 MMscf/yr for flare FL1 and 21.9 MMscf/yr for FL2.</p>
<p>Monitoring:</p> <p>(1) A gas flowmeter and flow totalizer, equipped with a chart recorder or data logger (electronic storage), shall be installed in each flare line (FL1 and FL2) to measure and record the total standard cubic feet (scf) of pilot and purge gas sent to each flare during each month.</p> <p>(2) The chart recorder or data logger, flowmeter and totalizer shall be operated, calibrated, and maintained as specified by the manufacturer or equivalent and as necessary to ensure correct and accurate readings.</p>

Recordkeeping:

(1) The following records shall be kept:

- The monthly total volume (scf) from flowmeter and flow totalizer measurements of pilot and purge gas sent to each flare (FL1 and FL2)
- during the first 12-months of monitoring, the cumulative total of pilot and purge gas sent to each flare (scf/yr)
- after the first 12-months of monitoring, the monthly rolling 12-month total of pilot and purge gas sent to each flare (scf/yr)

(2) Records of flowmeter, totalizer, calibrations performed according to manufacturer's specifications, breakdowns, reasons for breakdown, and corrective actions taken shall be maintained as per Condition A107.C and shall also be applied to this condition.

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

C. Emergency Operation (Unit FL3)

Requirement: The flare, unit FL3, shall only have emissions resulting from the pilot flame, unless otherwise approved by this permit. The permittee shall install a flow meter to continuously measure the flow of gas to flare.

Monitoring: The permittee shall monitor the flow of gas to flare, to include a log describing the type of flaring event, time, and quantity.

Recordkeeping: The permittee shall maintain records of the monitoring activities demonstrating that the flaring event is the result of an emergency and not from a scheduled maintenance event.

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

A207 Sulfur Recovery Unit – Not Required

A208 Amine Unit

A. Operating and Control Requirements (Unit Amine)

Requirement: The permittee shall meet the following requirements to comply with the allowable emission limits in Table 106.A and with the BACT requirements in Table 105.

(1) All amine unit equipment components (including the amine contactor, flash tank(s), amine tanks, amine pumping system, and amine still) shall be inspected semi-annually for proper function and operation.

(2) Flash tank emissions shall be recovered and sent to the inlet stream at all times.

(3) Emissions from the amine still overhead vents shall be routed at all times to the acid gas injection well (AGI) system and controlled with the AGI system except for authorized emissions in Section A107, when off gases may be routed to FL2 during routine or predictable startup, shutdown, and/or maintenance.

(4) At no time shall amine unit emissions from the still vent or flash tank be vented directly to the atmosphere.

Monitoring: Semi-annually, the permittee shall inspect all amine unit equipment components for proper operation and function and to ensure that the flash tank emissions and amine unit still overhead vents are routed at all times to their control devices.

Recordkeeping: The permittee shall maintain a record of the semi-annual inspections, any deviations from the requirements of this condition, and any necessary repairs.

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

B. Limit on Total Amine Overhead Flow (Unit Amine)

Requirement: To ensure sufficient control of the amine unit overheads by the Acid Gas Injection well (AGI) system, the permittee shall limit sour gas processing to no more than 16 MMscf/d based on an amine inlet flow of 230 MMscf/d.

This requirement is based on the maximum inlet capacity per AGI.

Monitoring:

The permittee shall monitor the maximum daily volumetric flow rates of off gases from the Amine Unit in scf/d or MMscf/d.

The flow meter and totalizer shall be operated, calibrated, and maintained as specified by the manufacturer or equivalent and as necessary to ensure correct and accurate readings.

Recordkeeping: The permittee shall keep records of the daily volumetric flow rates of amine unit off gases and of the flow meter calibrations.

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

C. Acid Gas Injection Well Operation (Units Amine and AGI1 and/or AGI2)

Requirement: The permittee shall demonstrate compliance with the allowable emission limits in Table 106.A and with the BACT requirements in Table 105 for Amine unit by meeting the following Acid Gas Injection well (AGI) system requirements.

(1) The permittee shall operate at least one Class II acid gas injection well (AGI) that holds a valid permit from the New Mexico Oil and Conservation Division (NMOCD).

(2) At all times, the Amine unit off gases shall be routed to and controlled with the AGI except for authorized emissions in Section A107, when off gases are routed to FL2 during routine or predictable startup, shutdown, and/or maintenance.

(3) Total volumetric flow of acid gases exiting the Amine Unit shall at all times be equal to the sum of acid gas volumetric flows being injected, and/or routed to flare FL2:

$$\text{Amine Unit exit flow} = \text{total injection flow rate} + \text{FL2 inlet flow}$$

(4) Flow from the AGI well head to the flare (FL2) is not permitted.

(5) If at any time the NMOCD requests a radio-tracer study of the permittee's AGI wells, the permittee shall notify the Department of such request made by NMOCD.

Monitoring:

(1) The permittee shall monitor the AGI compressor discharge pressure, the AGI well head pressure, the volume and duration of any flow from the AGI well head to the acid gas flare (FL2), and shall monitor when any AGI well goes offline, the duration of time the well(s) is(are) offline, and when an offline well comes back online.

(2) The permittee shall continuously monitor with a flowmeter the flow of acid gases:

- (a) from the Amine Unit,
- (b) injected into the AGI, and
- (c) sent to the acid gas flare (FL2).

(3) The flow meter and totalizer shall be operated, calibrated, and maintained as specified by the manufacturer or equivalent and as necessary to ensure correct and accurate readings.

Recordkeeping: The permittee shall maintain these records:

- (1) Date and time a well goes offline
- (2) Duration of time a well is offline
- (3) Date and time a well comes back online
- (4) Volumetric flow of amine off-gases from the Amine Unit, into the AGI(s), and to the acid gas flare (FL2)
- (5) Records of the flow meter calibrations
- (6) Records of the wellhead and discharge differential pressure, and the volume duration of any flow from the AGI well head to the acid gas flare (FL2)

Reporting:

- (1) The permittee shall report to the Permit Programs Manager the wellhead and discharge pressures (psig) within 30 days of initial startup of each acid gas injection well.
- (2) The permittee shall report to the Department when NMOCD requests a radio-tracer study of the permittee's AGI wells.
- (3) The permittee shall report in accordance with Condition B110.

A209 Fugitive Equipment Leak Standards

- A. Facility-wide Operations (Unit FUG) and Leak Standards (equipment leak standards for all applicable process unit equipment) FUG includes named units Amine, Dehy, FL1, FL2, FL3, L1, TK-2100, TK-2200, TK-6100, TK-6150, and VCD1

Requirement: The permittee shall comply with the allowable emission limits in Table 106.A, BACT control requirements in Table 105, and Condition A106.D. To demonstrate compliance with these requirements, the permittee shall implement a leak detection and repair (LDAR) program. An LDAR program that meets all of the requirements of 40 CFR 60, Subpart OOOO shall be deemed in compliance with this condition.

Unit FUG is subject to 40 CFR 60, Subparts A and OOOO according to 40 CFR 60.5365 and the permittee shall comply with the notification requirements in Subpart A and the applicable specific requirements of Subpart OOOO, including standards in 60.5400.

Monitoring: The permittee shall inspect equipment in wet gas and VOC service, in accordance with the requirements at 40 CFR 60, Subpart OOOO.

(1) The permittee shall place a visible tag on all components that have a liquid leak or a vapor leak greater than 500 ppm VOCs until those components are repaired.

(2) The permittee shall comply with all applicable monitoring requirements in 40 CFR 60, Subpart A and Subpart OOOO, including but not limited to 60.5410 and 60.5415.

Recordkeeping: The permittee shall maintain records of all leaks and shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart OOOO, including but not limited to 60.5420, and according to Section B109.

Reporting: The permittee shall comply with all applicable reporting requirements in 40 CFR 60, Subpart A and Subpart OOOO, including but not limited to 60.5420, and in Section B110.

A210 Vapor Combustion Device (Unit VCD1)

A. Good Combustion Practices (GCP) (Unit VCD1)

Requirement: To demonstrate compliance with the allowable emission limits in Table 106.A, the BACT limits in Table 106.B, and the 98.0% destruction rate efficiency (DRE) for VOCs and CH₄, the permittee shall comply with the following GCPs.

(1) The permittee shall conduct operational inspections, semi-annually (two times per 12-months), to determine that the vapor combustion device (VCD1) is operating properly.

(2) The permittee shall ~~meet-submit~~ the manufacturer's VCD1 specifications and an inspection protocol ~~in an electronic format (CD), to the Permit Programs Manager within 3 months of PSD5217 M1 permit issuance or within 3 months of starting operations, whichever is later. The 3 month deadline may be extended if the extension is approved in writing by the Department prior to the existing deadline.~~ At a minimum, the permittee shall include in the identify the sections of the protocol ~~that include~~ the methods for inspecting and adjusting proper residence time within the combustion chamber, minimum combustion temperature, and proper air distribution.

~~(3) Within 3 months after PSD5217 M1 permit issuance the permittee shall provide a table that lists each section of the DCP Midstream Preventative Maintenance and Inspections Guidelines and Practices manual that applies to the VCD. Only the sections that affect regulated air emissions shall be listed. The 3 month deadline may be extended if the extension is approved in writing by the Department prior to the existing deadline.~~

~~(4) All submittal requirements in this condition shall be to the attention of the Permit Programs Manager.~~

~~(52) The permittee shall implement the proposed site specific inspection and maintenance protocol within the time lines specified in Condition B108.G.~~

~~(63)~~ To ensure on-going good combustion practice of the units, the permittee shall update the approved inspection and maintenance protocol as needed based on operational experience with the unit.

Monitoring: Inspections shall be conducted when the VCD1 is operating. The permittee shall conduct the semi-annual inspections according to the Department approved inspection

protocol.

Recordkeeping: The permittee shall keep the following records:

(1) A copy of the manufacturer's VCD1 specifications and an inspection protocol as approved by the Department. The permittee shall also maintain a copy of the approval from the Department.

(2) The permittee shall maintain a table that lists each section from the most current version of the DCP Midstream Preventative Maintenance and Inspections Guidelines and Practices manual that applies to the VDC.

(3) The dates, parameters inspected, the results of the inspections, and any repairs or adjustments needed as a result of the inspections.

(4) The permittee shall also maintain records in accordance with Section B109.

Reporting: The permittee shall report according to Section B110.

B. Verification of Emission Rates (Unit VCD1)

Requirement: To demonstrate compliance with the allowable emission limits in Table 106.A and the BACT limits in Table 106.B, the permittee shall comply with the following monitoring and recordkeeping.

Monitoring:

(1) A gas flowmeter and flow totalizer, equipped with a chart recorder or data logger (electronic storage) capable of recording hourly flow volumes, shall be installed in the VCD1 gas line to measure and record the total standard cubic feet (scf) of gas sent to the VCD1 during each hour and each month.

(2) The permittee shall determine the VOC content, the CH₄ content, the CO₂ content, and the heating value (Btu/scf) of the gas sent to the VCD1 for combustion at least once annually with a gas analysis.

(3) The flow meter and totalizer shall be operated, calibrated, and maintained as specified by the manufacturer or equivalent and as necessary to ensure correct and accurate readings.

Recordkeeping:

(1) The following records shall be kept:

- annual gas analysis including total sulfur
- hourly and monthly flowmeter and flow totalizer measurements of gas sent to the VCD1

(2) Each month, the permittee shall record and summarize in a table format the following.

- percent VOC, CH₄, and CO₂ content
- gas heating value (Btu/scf)
- the maximum hourly gas flow rate (scf/hr) that occurred during the month
- the hourly gas flow rate (scf/hr) for any hours that exceeded any pph or lb/MMBtu emission limit during the month
- the total month's scf of gas sent to the VCD1
- during the first 12-months of monitoring, the cumulative total of gas sent to the VCD1

<p>(scf/yr)</p> <ul style="list-style-type: none"> • after the first 12-months of monitoring, the monthly rolling 12-month total of gas sent to the VCD1 (scf/yr) <p>(3) Records of flowmeter, totalizer, and inline monitor certifications, calibrations performed according to manufacturer's specifications, breakdowns, reasons for the breakdown, and corrective actions taken shall be maintained.</p> <p>(4) Each month to demonstrate compliance with emission limits, the permittee shall calculate and summarize the maximum pph and lb/MMBtu emission rate, any pph and/or lb/MMBtu emission rate exceeding the permitted limits, and the ton per year emission rates of NO_x, CO, VOC, and CO₂e using the following information:</p> <ul style="list-style-type: none"> • the VOC, CH₄, and CO₂ content, and the gas heating value (MMBtu/scf) from the most recent gas analysis • the emission factors used to calculate NO_x and CO • the maximum hourly gas flow rate (scf/hr) • the hourly gas flow rate (scf/hr) for any hours that exceeded any emission limit during the month • during the first 12 months of monitoring, the cumulative total of gas sent to the VCD1 • after the first 12-months of monitoring, the monthly rolling 12-month total of gas sent to the VCD1 (scf/yr) <p>Reporting: The permittee shall report in accordance with Section B110.</p>
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A211 Wet Surface Air Coolers (Units CT-1 and CT-2)

A. Good Maintenance and Operational Practices (Units CT-1 and CT-2)

<p>Requirement: To demonstrate compliance with the allowable emission limits in Table 106.A and the BACT requirement in Table 105, the permittee shall meet the following requirements.</p> <p>(1) The wet surface air cooler units CT-1 and CT-2 shall be equipped with a drift eliminator and designed, operated, and maintained according to manufacturer's specifications, or equivalent, so that the drift rate is 0.005% or less of the water circulation rate.</p> <p>(2) The water in the air cooler shall not exceed a total dissolved solids (TDS) of 3500 ppmw.</p> <p>(3) The circulation rate the air cooler's water pumps shall not exceed 240 gallons per minute for unit CT-1 and 126 gallons per minute for unit CT-2.</p> <p>Monitoring: The permittee shall monitor the following parameters.</p> <p>(1) At least once per year, inspect to verify that the drift eliminator is in place and in good repair.</p> <p>(2) At least once per month, measure the TDS of air cooler water in ppmw.</p> <p>Recordkeeping:</p> <p>(1) The permittee shall maintain manufacturer records specifying the drift rate and maximum water flow rate.</p> <p>(2) The permittee shall keep records of the drift eliminator inspections and TDS</p>

measurements.

(3) The permittee shall also maintain records in accordance with Section B109.

Reporting: The permittee shall report according to Section B110.

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

GENERAL CONDITIONS AND MISCELLANEOUS

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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. The owner or operator of a source having an excess emission shall, to the extent practicable, operate the source, including associated air pollution control equipment, in a manner consistent with good air pollutant control practices for minimizing emissions. (20.2.7.109 NMAC). The establishment of allowable malfunction emission limits does not supersede this requirement.

B102 Authority

- A. This permit is issued pursuant to the 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)

For Mailing:

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

For Hand Delivery:

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

B105 Submittal of Reports and Certifications

- A. Stack Test Protocols and Stack Test Reports shall be submitted electronically to Stacktest.AQB@state.nm.us or as directed by the Department.
- B. Excess Emission Reports shall be submitted as directed by the Department. (20.2.7.110 NMAC)
- C. 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 completed, the permittee is not required to restart the unit for the sole purpose of conducting the monitoring. Using electronic or written mail, the permittee shall notify the Department's Compliance and Enforcement Section of a delay in emission tests prior to the deadline for completing the tests. Upon recommencing operation, the permittee shall submit pre-test notification(s) to the Department's Compliance and Enforcement Section and shall complete the monitoring.

- D. The requirement for monitoring during any monitoring period is based on the percentage of time that the unit has operated. However, to invoke 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 as follows:
- (1) Records required for testing and sampling:
 - (a) equipment identification (include make, model and serial number for all tested equipment and emission controls)
 - (b) date(s) and time(s) of sampling or measurements
 - (c) date(s) analyses were performed
 - (d) the qualified entity that performed the analyses
 - (e) analytical or test methods used
 - (f) results of analyses or tests
 - (g) operating conditions existing at the time of sampling or measurement
 - (2) Records required for equipment inspections and/or maintenance required by this permit:
 - (a) equipment identification number (including make, model and serial number)
 - (b) date(s) and time(s) of inspection, maintenance, and/or repair
 - (c) date(s) any subsequent analyses were performed (if applicable)
 - (d) name of the person or qualified entity conducting the inspection, maintenance, and/or repair
 - (e) copy of the equipment manufacturer's or the owner or operator's maintenance or repair recommendations (if required to demonstrate compliance with a permit condition)
 - (f) description of maintenance or repair activities conducted
 - (g) all results of any required parameter readings
 - (h) a description of the physical condition of the equipment as found during any required inspection
 - (i) results of required equipment inspections including a description of any condition which required adjustment to bring the equipment back into compliance and a description of the required adjustments

- B. 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. Unless otherwise indicated by Specific Conditions, the permittee shall keep the following records for malfunction emissions and routine or predictable emissions during startup, shutdown, and scheduled maintenance (SSM):
- (1) The owner or operator of a source subject to a permit shall establish and implement a plan to minimize emissions during routine or predictable startup, shutdown, and scheduled maintenance through work practice standards and good air pollution control practices. This requirement shall not apply to any affected facility defined in and subject to an emissions standard and an equivalent plan under 40 CFR Part 60 (NSPS), 40 CFR Part 63 (MACT), or an equivalent plan under 20.2.72 NMAC - Construction Permits, 20.2.70 NMAC - Operating Permits, 20.2.74 NMAC - Permits - Prevention of Significant Deterioration (PSD), or 20.2.79 NMAC - Permits - Nonattainment Areas. The permittee shall keep records of all sources subject to the plan to minimize emissions during routine or predictable SSM and shall record if the source is subject to an alternative plan and therefore, not subject to the plan requirements under 20.2.7.14.A NMAC.
 - (2) If the facility has allowable SSM emission limits in this permit, the permittee shall record all SSM events, including the date, the start time, the end time, a description of the event, and a description of the cause of the event. This record also shall include a copy of the manufacturer's, or equivalent, documentation showing that any maintenance qualified as scheduled. Scheduled maintenance is an activity that occurs at an established frequency pursuant to a written protocol published by the manufacturer or other reliable source. The authorization of allowable SSM emissions does not supersede any applicable federal or state standard. The most stringent requirement applies.
 - (3) If the facility has allowable malfunction emission limits in this permit, the permittee shall record all malfunction events to be applied against these limits. The permittee shall also include the date, the start time, the end time, and a description of the event. **Malfunction means** any sudden and unavoidable failure of air pollution control equipment or process equipment beyond the control of the owner or operator, including malfunction during startup or shutdown. A failure that is caused entirely or in part by poor maintenance, careless operation, or any other preventable equipment breakdown shall not be considered a malfunction. (20.2.7.7.E NMAC) The authorization of allowable malfunction emissions does not supersede any applicable federal or state standard. The most stringent requirement applies. This authorization only allows the permittee to avoid submitting reports under 20.2.7 NMAC for total annual emissions that are below the authorized malfunction emission limit.

- (4) The owner or operator of a source shall meet the operational plan defining the measures to be taken to mitigate source emissions during malfunction, startup or shutdown. (20.2.72.203.A(5) NMAC)

B110 General Reporting Requirements

(20.2.72 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.
- F. Allowable Emission Limits for Excess Emissions Reporting for Flares and Other Regulated Sources with No Pound per Hour (pph) and/or Ton per Year (tpy) Emission Limits.
- (1) When a flare has no allowable pph and/or tpy emission limits in Sections A106 and/or A107, the authorized allowable emissions include only the combustion of pilot and/or purge gas. Compliance is demonstrated by limiting the gas stream to the flare to only pilot and/or purge gas.
 - (2) For excess emissions reporting as required by 20.2.7 NMAC, the allowable emission limits are 1.0 pph and 1.0 tpy for each regulated air pollutant (except for H₂S) emitted by that source as follows:
 - (a) For flares, when there are no allowable emission limits in Sections A106 and/or A107.
 - (b) For regulated sources with emission limits in Sections A106 or A107 represented by the less than sign (“<”).
 - (c) For regulated sources that normally would not emit any regulated air pollutants, including but not limited to vents, pressure relief devices, connectors, etc.
 - (3) For excess emissions reporting as required by 20.2.7 NMAC for H₂S, the allowable limits are 0.1 pph and 0.44 tpy for each applicable scenario addressed in paragraph (2) above.

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 SO₂
 - (d) Method 7E for NO_x (test results shall be expressed as nitrogen dioxide (NO₂) using a molecular weight of 46 lb/lb-mol in all calculations (each ppm of NO/NO₂ is equivalent to 1.194 x 10⁻⁷ 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). Fuel flow rate must be determined by a dedicated fuel flow meter.
 - (h) Method 7E or 20 for Turbines per 60.335 or 60.4400

- (i) Method 29 for Metals
 - (j) Method 201A for filterable PM₁₀ and PM_{2.5}
 - (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 the current version of ASTM D 6522. However, if a facility has met a previously approved Department criterion for portable analyzers, the analyzer may be operated in accordance with that criterion until it is replaced.
- (2) 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 and diluent concentration shall be monitored and recorded. Fuel flow rate shall be monitored and recorded if stack gas flow rate is determined utilizing Method 19. This information shall be included with the test report furnished to the Department.
- (5) Stack gas flow rate shall be calculated in accordance with 40 CFR 60, Appendix A, Method 19 utilizing fuel flow rate (scf) determined by a dedicated fuel flow meter and fuel heating value (Btu/scf) determined from a fuel sample obtained preferably during the day of the test, but no earlier than three months prior to the test date. Alternatively, stack gas flow rate may be determined by using EPA Methods 1-4.

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/sec²

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

h_2 = replacement stack height, feet

v_2 = exhaust velocity, replacement engine, feet per second

T_2 = absolute temperature of exhaust, replacement engine = degree F + 460

q_2 = 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 NO_x and CO emissions from the temporary replacement engine shall be performed in accordance with Section B111 with the exception of Condition B111A(2) 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_x 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_x 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 NOx 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 IIII 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.AG. 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(s) 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(s) shall not equal or 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. **"Decommission"** and **"Decommissioning"** applies to units left on site (not removed) and is defined as the complete disconnecting of equipment, emission sources or activities from the process by disconnecting all connections necessary for operation (i.e. piping, electrical, controls, ductwork, etc.).
- C. **"Exempt Sources"** and **"Exempt Activities"** is defined as those sources or activities that are exempted in accordance with 20.2.72.202 NMAC. Note; exemptions are only valid for most 20.2.72 NMAC permitting actions.
- D. **"Fugitive Emission"** means those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening.
- E. **"Insignificant Activities"** means those activities which have been listed by the department and approved by the administrator as insignificant on the basis of size, emissions or production rate. Note; insignificant activities are only valid for 20.2.70 NMAC permitting actions.
- F. **"Malfunction"** for the requirements under 20.2.7 NMAC, means any sudden and unavoidable failure of air pollution control equipment or process equipment beyond the control of the owner or operator, including malfunction during startup or shutdown. A failure that is caused entirely or in part by poor maintenance, careless operation, or any other preventable equipment breakdown shall not be considered a malfunction. (20.2.7.7.E NMAC)

- G. **“Natural Gas”** is defined as a naturally occurring fluid mixture of hydrocarbons that contains 20.0 grains or less of total sulfur per 100 standard cubic feet (SCF) and is either composed of at least 70% methane by volume or has a gross calorific value of between 950 and 1100 Btu per standard cubic foot. (40 CFR 60.631)
- H. **“Natural Gas Liquids”** means the hydrocarbons, such as ethane, propane, butane, and pentane, that are extracted from field gas. (40 CFR 60.631)
- I. **“National Ambient air Quality Standards”** means, 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.
- J. **“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/>).
- K. **“Night Operation or Operation at Night”** is operating a source of emissions at night.
- L. **“NO₂”** 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_x or NO₂. (20.2.2 NMAC)
- M. **“NO_x”** see NO₂
- N. **“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.
- O. **“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.

- P. **“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.
- Q. **"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.
- R. **"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.
- S. **"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 ₂ 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
NESHAP.....	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 _x	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 ₁₀	particulate matter 10 microns and less in diameter
PM _{2.5}	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 ₂	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
ULSDultra 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