

# AIR QUALITY BUREAU NEW SOURCE REVIEW PERMIT

# **Issued under 20.2.72 NMAC**

NSR Permit No: Facility Name:	7200-M4 Road Runner Gas Processing Plant
Facility Owner/Operator: Mailing Address:	Targa Northern Delaware, LLC P.O. Box 158 Artesia, NM 88211
TEMPO/IDEA ID No: AIRS No:	36536-PRN20220003 350151662
Permitting Action: Source Classification:	Significant Permit Revision TV Major, PSD Minor
Facility Location:	583,982 m E by 3,570,216 m N, Zone 13; Datum NAD83
County:	Eddy
Air Quality Bureau Contact Main AQB Phone No.	Joseph Kimbrell (505) 476-4300
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Bureau Chief Air Quality Bureau	Template version: 06/28/2021

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## PART A <u>FACILITY SPECIFIC REQUIREMENTS</u>

#### A100 Introduction

A. This permit, NSR 7200-M4, supersedes all portions of Air Quality Permit 7200-M3 issued February 19, 2021, except portions 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.

## A101 Permit Duration (expiration)

A. The term of this permit is permanent unless withdrawn or cancelled by the Department.

## A102 <u>Facility: Description</u>

- A. The function of the facility is to separate natural gas (methane) from heavier (liquid) hydrocarbons and raw sweet field gas so that the gas can meet pipeline specifications.
- B. This facility is located approximately 1.5 miles southwest of Loving, New Mexico in Eddy County.
- C. This modification consists of the following changes:
  - removed processing train 4 and associated equipment from the permit. Train 4 has not been constructed. Units 4-EP-1, 4-EP-2, 4-EP-4, 4-EP-5, 4-EP-7, FUG2, 4-D-1 to 4-D-4;
  - decreased site processing throughput from 321,200 MMscf/yr ( 880 MMscfd) to 268,275 MMscf/yr (735 MMscfd);
  - updated specifications and permit limits for proposed processing trains 2 and 3; increase permit limits to allow the ability to process gas containing up to 5 ppm H2S;
  - updated the permit representation for heaters to be equal to maximum heat output as opposed to design heat duty output;
  - add exempt methanol tanks; increase plant fugitives to use updated counts;
  - update tank emission calculations to account for maximum hourly emissions;

- update the number of electric compressors initially installed on existing train 1 and renumber the compressors in Form UA-2 Table 2-A for all electric compressors (Units D-1 thru D-7, 2-D-1 thru 2-D-8, 3-D-1 thru 3-D-8);
- update representations to separately list the amine sweetening unit for each train; added applicability to State Regulation 20.2.50 NMAC.

The description of this modification is for informational purposes only and is not enforceable.

D. Tables 102.A and Table 102.B show the total potential emission rates (PER) from this facility for information only. This is not an enforceable condition and excludes emissions from Minor NSR exempt activities per 20.2.72.202 NMAC.

Table 102.A: Total Potential Emission Rate (PER) from Entire Facility

Pollutant	Emissions (tons per year)
Nitrogen Oxides (NOx)	155.9
Carbon Monoxide (CO)	231.4
Volatile Organic Compounds (VOC) <sup>1</sup>	297.3
Sulfur Dioxide (SO <sub>2</sub> )	147.9
Particulate Matter (PM)	16.8
Particulate Matter 10 microns or less (PM <sub>10</sub> )	15.7
Particulate Matter 2.5 microns or less (PM <sub>2.5</sub> )	15.4
Hydrogen Sulfide (H <sub>2</sub> S)	0.54
Greenhouse Gas (GHG) as CO <sub>2</sub> e	425,010

<sup>1.</sup> VOC total includes emissions from Fugitives, SSM and Malfunctions.

Table 102.B: Total Potential Emissions Rate (PER) for \*Hazardous Air Pollutants (HAPs) that exceed 1.0 ton per year

Pollutant	Emissions (tons per year)
Benzene	6.4
Hexane	7.0
Total HAPs**	24.2

<sup>\*</sup> HAP emissions are already included in the VOC emission total.

# **A103** Facility: Applicable Regulations

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

<sup>2.</sup> PM is a regulated new source review pollutant per 20.2.74 NMAC Prevention of Significant

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

**Table 103.A: Applicable Requirements** 

Applicable Requirements	Federally	Unit		
Applicable Requirements	Enforceable	No.		
20.2.1 NMAC General Provisions	X	Entire Facility		
20.2.7 NMAC Excess Emissions	X (Except for Sections 6(b); 110(b)(15); 111; 112; 113; 115; and 116 that are State Enforceable Only)	Entire Facility		
20.2.50 NMAC Oil and Gas Sector - Ozone Precursor Pollutants	State Only	Reciprocating Compressor Seal Units D-1 thru D-7, 2-D- 1 thru 2-D-8, 3-D-1 thru 3-D- 8; EP-3A, EP-3B Amine Reboilers; EP-6, 2-EP-6 Stabilizer Reboilers; EP-2, 2- EP-2, 3-EP-2 Trim Reboilers; Control Devices EP-1, 2-EP- 1, 3-EP-1; Equipment Leaks & Fugitives-FUG; SSM emissions from pigging and component venting (MSSM)		
20.2.61 NMAC Smoke and Visible Emissions	X	EP-1, 2-EP-1, 3-EP-1, EP-2, 2-EP-2, 3-EP-2, 4-EP-2, EP- 3A, EP-3B, EP-4, 2-EP-4, 3- EP-4, EP-5, 2-EP-5, 3-EP-5, EP-6, 2-EP-6, EP-9, COMB-1		
20.2.72 NMAC Construction Permit	X	Entire Facility		
20.2.73 NMAC Notice of Intent and Emissions Inventory Requirements	X	Entire Facility		
20.2.75 NMAC Construction Permit Fees	X	Entire Facility		
20.2.77 NMAC New Source Performance	X	Units subject to 40 CFR 60		
20.2.82 NMAC MACT Standards for Source Categories of HAPS	X	Units subject to 40 CFR 63		
40 CFR 60, Subpart A, General Provisions	X	Units subject to 40 CFR 60		
40 CFR 60, Subpart Dc	X	EP-2, 2-EP-2, 3-EP-2, EP-3A, EP-3B, EP-6, 2-EP-6		
40 CFR 60, Subpart Kb	X	T-1, T-2, T-3, T-4, T-5		
40 CFR 60, Subpart OOOO	X	Potentially compressors 2-D-1 through 2-D-8 and fugitives associated with Train 2		

**Table 103.A: Applicable Requirements** 

Applicable Deguinements	Federally	Unit
Applicable Requirements	Enforceable	No.
		Compressors D-1, D-2, D-3,
		D-4, 2-D-1, 2-D-2, 2-D-3, 2-
40 CFR 60, Subpart OOOOa	X	D-4, 3-D-1, 3-D-2, 3-D-3, 3-
40 CTK 00, Subpart 0000a	Λ	D-4, Tanks T-1, T-2, T-3, T-4,
		T-5, Amines EP-8, 2-EP-8, 3-
		EP-8, and FUG
		Potentially applies to
		reciprocating electric
	Not yet	compressors 3-D-1 through 3-
40 CFR 60, Subpart OOOOb	promulgated	D-8 and fugitives associated
	promuigated	with Train 3 will be new
		affected facilities for the
		purpose of NSPS OOOOb.
40 CFR 63, Subpart A, General Provisions	X	Units subject to 40 CFR 63
40 CFR 63, Subpart HH	X	EP-7, 2-EP-7, 3-EP-7
40 CFR 68 Chemical Accident Prevention	X	Entire Facility

# A104 Facility: Regulated Sources

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

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

Unit No.	Source Description	Make	Model	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Manufacturer Rated Capacity / Permitted Capacity
EP-1	SSM Flare (Pilot with Auto Ignition)	Zeeco Inc.	FL5100	31927	2017	2017	0.66 MMScf/day; 240.025 MMScf/yr
2-EP-1	SSM Flare (Pilot with Auto Ignition)	TBD	TBD	TBD	TBD	TBD	0.66 MMScf/day; 240.025 MMScf/yr
3-EP-1	SSM Flare (Pilot with Auto Ignition)	TBD	TBD	TBD	TBD	TBD	0.66 MMScf/day; 240.025 MMScf/yr
EP-2	Trim Reboiler	Fabsco Shell &Tube	E-207	516- 11764- 2/HI14- 149	2017	2017	26.5 MMBtu/hr
2-EP-2	Trim Reboiler	Fabsco Shell &Tube	E-207	TBD	TBD	TBD	26.5 MMBtu/hr

Unit No.	Source Description	Make	Model	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Manufacturer Rated Capacity / Permitted Capacity
3-EP-2	Trim Reboiler	Fabsco Shell &Tube	E-207	TBD	TBD	TBD	26.5 MMBtu/hr
EP-3A	Amine Reboiler	Patrick	2BKU30/5 A-312	717- 5145A	2017	2017	70.28 MMBtu/hr
EP-3B	Amine Reboiler	Patrick	TBD	TBD	TBD	TBD	84.77 MMBtu/hr
EP-4	Glycol Reboiler Heater	Reset Energy	H-2801	F-9	2017	2017	3.9 MMBtu/hr
2-EP-4	Glycol Reboiler Heater	TBD	TBD	TBD	TBD	TBD	3.9 MMBtu/hr
3-EP-4	Glycol Reboiler Heater	TBD	TBD	TBD	TBD	TBD	3.9 MMBtu/hr
EP-5	Regen Reboiler Heater	Heatec	HCI5010- 40-G	HI16-201	2017	02/2017	9.5 MMBtu/hr
2-EP-5	Regen Reboiler Heater	TBD	TBD	TBD	TBD	TBD	9.5 MMBtu/hr
3-EP-5	Regen Reboiler Heater	TBD	TBD	TBD	TBD	TBD	9.5 MMBtu/hr
EP-6	Stabilizer Heater	Phoenix	PX-180	17169	2017	2017	23.4 MMBtu/hr
2-EP-6	Stabilizer Heater	TBD	TBD	TBD	TBD	TBD	23.4 MMBtu/hr
EP-7	Glycol Dehydrator Heater	Reset Energy	T-2707	153	2017	2017	240 MMScf/day
2-EP-7	Glycol Dehydrator Heater	TBD	TBD	TBD	TBD	TBD	240 MMScf/day
3-EP-7	Glycol Dehydrator Heater	TBD	TBD	TBD	TBD	TBD	240 MMScf/day
EP-8	Amine Still Vent	PBP Fabrication	V-5520	493	2017	2017	245 MMScf/day
2-EP-8	Amine Still Vent	TBD	TBD	TBD	TBD	TBD	245 MMScf/day
3-EP-8	Amine Still Vent	TBD	TBD	TBD	TBD	TBD	245 MMScf/day
EP-9	Thermal Oxidizer	Zeeco Inc.	TO-55	32339	2017	2017	71 MMBtu/hr
COMB-1	Combustor	Zeeco Inc	VCU- 7.5.40 Flare	31974-001	2017	2017	0.00156 MMScf/day; 12.75 MMscf/yr
LOAD	Loadout Emissions NA		NA	NA	NA	NA	2,920,000 bbl/year
HAUL	Haul Road Emissions	NA	NA	NA	NA	NA	4,380 trips/yr
T-1	Condensate Tank	Tank &Vessel Boilers LP	NA	201723	2017	2017	1000 ьы
T-2	Condensate Tank	Tank &Vessel Boilers LP	NA	201724	2017	2017	1000 ьы

Unit No.	Source Description	Make	Model	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Manufacturer Rated Capacity / Permitted Capacity
T-3	Condensate Tank	Tank &Vessel Boilers LP	NA	201720	2017	2017	1000 ьы
T-4	Condensate Tank	Tank &Vessel Boilers LP	NA	201721	2017	2017	1000 ьы
T-5	Condensate Tank	Tank &Vessel Boilers LP	NA	201722	2017	2017	1000 ьы
T-6	Produced Water Tank	Palmer	NA	ST- 1711323	2017	08/2017	400 bbl
D-1	Electric Driven Residue Compressor	Ariel	KBZ/6	F54680	2017	9/1/2017	60 MMscf/d
D-2	Electric Driven Residue Compressor	Ariel	KBZ/6	F54701	2017	9/1/2017	60 MMscf/d
D-3	Electric Driven Residue Compressor	Ariel	KBZ/6	F54720	2017	9/1/2017	60 MMscf/d
D-4	Electric Driven Residue Compressor	Ariel	KBZ/6	F54750	2017	9/1/2017	60 MMscf/d
D-5	Electric Driven Refrigeration Compressor	GEA	XCR- XC26555- 18	XC0507	2017	TBD	4500 hp
D-6	Electric Driven Refrigeration Compressor	GEA	XCR- XC26555- 18	XC0508	2017	TBD	4500 hp
D-7	Electric Driven Refrigeration Compressor	GEA	XCR- XC26555- 18	XC0510	2017	TBD	4500 hp
2-D-1	Electric Driven Residue Compressor	Ariel	KBZ4	TBD	2012	TBD	TBD
2-D-2	Electric Driven Residue Compressor	Ariel	KBZ4	TBD	2012	TBD	TBD
2-D-3	Electric Driven Residue Compressor	Ariel	KBZ4	TBD	2012	TBD	TBD
2-D-4	Electric Driven Residue Compressor	Ariel	KBZ4	TBD	2012	TBD	TBD
2-D-5	Electric Driven Refrigeration Compressor	Frick	RWF546E	TBD	2012	TBD	TBD
2-D-6	Electric Driven Refrigeration Compressor	Frick	RWF546E	TBD	2012	TBD	TBD

Unit No.	Source Description	Make	Model	Serial No.	Construction/ Reconstruction Date	Manufacture Date	Manufacturer Rated Capacity / Permitted Capacity	
2-D-7	Electric Driven Refrigeration Compressor	Frick	RWF546E	TBD	2012	TBD	TBD	
2-D-8	Electric Driven Refrigeration Compressor	Frick	RWF546E	TBD	2012	TBD	TBD	
3-D-1	Electric Driven Residue Compressor	Ariel	KBZ4	TBD	TBD	2023	60 MMscf/d	
3-D-2	Electric Driven Residue Compressor	Ariel	KBZ4	TBD	TBD	2023	60 MMscf/d	
3-D-3	Electric Driven Residue Compressor	Ariel	KBZ4	TBD	TBD	2023	60 MMscf/d	
3-D-4	Electric Driven Residue Compressor	Ariel	KBZ4	TBD	TBD	2023	60 MMscf/d	
3-D-5	Electric Driven Refrigeration Compressor	Frick	RWF546E	TBD	TBD	TBD	TBD	
3-D-6	Electric Driven Refrigeration Compressor	Frick	RWF546E	TBD	TBD	TBD	TBD	
3-D-7	Electric Driven Refrigeration Compressor	Frick	RWF546E	TBD	TBD	TBD	TBD	
3-D-8	Electric Driven Refrigeration Compressor	Frick	RWF546E	TBD	TBD	TBD	TBD	
FUG	Fugitive Emissions	NA	NA	NA	NA	NA	NA	
SSM-TO	Thermal Oxidizer SSM	NA	NA	NA	NA	NA	NA	
MSSM	Startup, Shutdown, Maintenance emissions from pigging and component venting	NA	NA	NA	NA	NA	NA	
SSMB	Startup, Shutdown, Maintenance Blowdown Emissions	NA	NA	NA	NA NA		NA	
MSST	SSM from Degassing	NA	NA	NA	NA	NA	NA	

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

# A105 Facility: Control Equipment

A. Table 105.A lists all the pollution control equipment required for this facility. Each emission point is identified by the same number that was assigned to it in the permit application.

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

Control Equipment Unit No.	Control Description	Pollutant being controlled	Control for Unit Number(s) <sup>1</sup>
BTEX-1, BTEX-2, BTEX-3, EP-4, 2- EP-4, 3-EP-4	Each glycol dehydration unit is equipped with a flash tank. Flash tank off-gasses route to the fuel system (reboiler) or plant inlet (they are not vented). Each glycol dehydration unit is also equipped with a BTEX condenser which has a 98% control efficiency. The noncondensable stream is routed to the amine thermal oxidizer unit.	VOC, HAP, H2S	EP-7, 2-EP-7, 3- EP-7
EP-9	Thermal Oxidizer	VOC, HAP, H2S	EP-7, 2-EP-7, 3- EP-7, EP-8, 2-EP- 8, 3-EP-8 and BTEX-1, BTEX- 2, BTEX-3
COMB-1	Combustor, 95% control efficiency	VOC, HAP, H2S	T-1, T-2, T-3, T-4, and T-5; SSMB
EP-1, 2-EP-1, 3-EP-1	Flares	VOC, HAP, H2S	Facility SSM Emissions, Trains 1, 2 & 3 inlet gas and residue gas

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

# A106 Facility: Allowable Emissions

**A.** The following Section lists the emission units and their allowable emission limits. (40 CFR 60 Subparts A, Dc, OOOOa, 40 CFR 63 Subparts A and HH, 20.2.72.210.A and B.1 NMAC)

**Table 106.A: Allowable Emissions** 

	$NO_x^1$	NO <sub>x</sub> <sup>1</sup>	CO	CO	VOC	VOC	$SO_2$	SO <sub>2</sub>	PM10	PM10	PM2.5	PM2.5	H <sub>2</sub> S	H <sub>2</sub> S
Unit No.	pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy	pph	tpy
EP-1 (pilot/	0.22	0.96	0.44	1.91	-	-	0.009	0.041	-	-	1	1	< 0.00	< 0.00
purge)													1	1
2-EP-1 (pilot/ purge)	0.17	0.72	0.33	1.45	-	-	0.008	0.036	-	-	-	-	<0.00 1	<0.00
3-EP-1 (pilot/ purge)	0.03	0.14	0.065	0.28	-	-	0.002	0.007	-	-	-	-	<0.00	<0.00
EP-2	2.6	11.4	2.2	9.6	<b>\</b>	<	-	ı	<	<b>\</b>	<	<	ı	-
2-EP-2	<	3.7	2.2	9.6	<	<	-	-	<	<	<	<	-	
3-EP-2	<	3.7	2.2	9.6	<	<	-	-	<	<	<	<	-	-
EP-3A	2.2	9.8	4.5	19.8	<	1.7	-	-	<	2.3	<	2.3	-	-
EP-3B	<	1.5	3.5	15.2	1.6	7.1	-	-	1.1	4.8	1.1	4.8	-	-
EP-4	<	1.7	<	1.4	<	<	-	-	<	<	<	<	-	-
2-EP-4	<	1.7	<	1.4	<	<	-	-	<	<	<	<	-	-
3-EP-4	<	1.7	<	1.4	<	<	-	-	<	<	<	<	-	-
EP-5	<	4.1	<	3.4	<	<	-	-	<	<	<	<	-	-
2-EP-5	<	4.1	<	3.4	<	<	-	-	<	<	<	<	-	-
3-EP-5	<	4.1	<	3.4	<	<	-	1	<	<	<	<	1	-
EP-6	2.3	10.1	1.9	8.4	<	<	-	-	<	<	<	<	-	-

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Unit No.	NO <sub>x</sub> <sup>1</sup> pph	NO <sub>x</sub> <sup>1</sup> tpy	CO pph	CO tpy	VOC pph	VOC tpy	SO <sub>2</sub> pph	SO <sub>2</sub> tpy	PM10 pph	PM10 tpy	PM2.5 pph	PM2.5 tpy	H <sub>2</sub> S pph	H <sub>2</sub> S tpy
2-EP-6	2.3	10.1	1.9	8.4	<	<	-	-	<	<	<	<	-	-
EP-7 <sup>4</sup>	-	-	-	-	*	0	-	-	-	-	-	-	-	-
2-EP-7 <sup>4</sup>	-	-	-	-	*	0	-	-	-	-	-	-	-	-
3-EP-7 <sup>4</sup>	-	-	-	-	*	0	-	-	-	-	_	-	-	-
EP-8 <sup>4</sup>	-	-	-	-	*	0	-	-	-	-	_	-	-	-
2-EP-8 <sup>4</sup>	-	-	-	-	*	0	-	-	-	-	-	-	-	-
3-EP-8 <sup>4</sup>	-	-	-	-	*	0	-	-	-	-	_	-	-	-
EP-9	6.1	26.8	3.0	13.1	<	2.3	26.7	116.8	<	2.6	<	2.6	0.014	0.062
COMB-1	7.8	3.1	15.4	6.2	37.6	4.3	<	<	<	<	<	<	<	<
LOAD	-	-	-	-	*	54.4	-	-	-	-	_	-	-	-
T1-T5 <sup>45</sup>	-	-	-	-	*	0	-	-	-	-	_	-	-	-
T-6	-	-	-	-	*	<	-	-	-	-	_	-	<	<
FUG	-	-	-	-	*	115.5	-	-	-	-	-	-		

<sup>1</sup> Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO<sub>2</sub>.

<sup>2</sup> 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. "-" indicates the application represented emissions of this pollutant are not expected.

<sup>&</sup>quot;<" indicates that the application represented the uncontrolled mass emission rates are less than 1.0 pph or 1.0 tpy for this emissions unit and this air pollutant. The Department determined that allowable mass emission limits were not required for this unit and this pollutant

<sup>&</sup>quot;\*" indicates hourly emission limits are not appropriate for this operating situation.

<sup>3</sup> To report excess emissions for sources with no pound per hour and/or ton per year emission limits, see condition B110F.

<sup>4</sup> Emissions represented at the thermal oxidizer (Unit EP-9)

<sup>5</sup> Emissions represented at the combustor (Unit COMB-1)

Table 106.B Emission Standards for Heaters (Units EP-3A, EP-3B Amine Reboilers; EP-6, 2-EP-6 Stabilizer Reboilers; EP-2, 2-EP-2, 3-EP-2 Trim Reboilers)

Date of Construction:	NO <sub>X</sub> (ppmvd @ 3% O <sub>2</sub> )	CO (ppmvd @ 3% O2)
Constructed or reconstructed before the effective date of 20.2.50 NMAC	30	400
Constructed or reconstructed on or after the effective date of 20.2.50 NMAC	30	400

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

A. The maximum allowable SSM emission limits for this facility are listed in Table 107.A and were relied upon by the Department to determine compliance with applicable regulations.

Table 107.A: Allowable SSM Units, Activities, and Emission Limits

Unit No.	Description	NO <sub>x</sub> (pph)	NO <sub>x</sub> (tpy)	CO (pph)	CO (tpy)	VOC (pph)	VOC (tpy)	SO2 (pph)	SO2 (tpy)	H2S (pph)	H2S (tpy)
EP-1	SSM Flare for Train 1 - Emissions from blowdowns and pressure safety devices	1578.4	19.9	3151.0	39.7	2484.7	29.8	828.6	10.0	9.0	0.11
2-EP-1	SSM Flare for Train 2 - Emissions from blowdowns and pressure safety devices	1578.3	19.7	3150.9	39.3	2484.7	29.8	828.6	10.0	9.0	0.11
3-EP-1	SSM Flare for Train 3 - Emissions from blowdowns and pressure safety devices	1578.2	19.1	3151.0	38.1	2484.7	29.8	828.6	10.0	9.0	0.11
SSM-TO	Thermal Oxidizer Downtime SSM	-	-	-	-	326.2	3.3			14.2	0.14
MSSM	SSM emissions from pigging venting	-	-	-	-	*	4.1			0.01	<0.0

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Unit No.	Description	NO <sub>x</sub> (pph)	NO <sub>x</sub> (tpy)	CO (pph)	CO (tpy)	VOC (pph)	VOC (tpy)	SO2 (pph)	SO2 (tpy)	H2S (pph)	H2S (tpy)
SSMB	SSM emissions from blowdowns	-	-	-	-	-	Note 4				
MSST	SSM emissions from tank degassing	-	-	-	-	38.16	0.034	-	1	1	-

- 1. This authorization does not include VOC combustion emissions.
- To report excess emissions for sources with no pound per hour and/or ton per year emission limits, see condition B110F.
   "\*" indicates hourly emission limits are not appropriate for this operating situation.
   Emissions represented at the combustor (Unit COMB-1)

- 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 (Units EP-1, 2-EP-1, and 3-EP-1)

**Requirement:** Compliance with routine or predictable startup, shutdown, and maintenance (SSM) emission limits in Table 107.A shall be demonstrated by operating the flares in accordance with the requirements of Condition A206.A thru A206.D of this permit and completing monitoring and recordkeeping as specified below.

#### **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 SSM emissions limits. These emissions shall be reported as excess emissions in accordance with 20.2.7.110 NMAC.

**Monitoring:** The permittee shall monitor the date, time, cause and duration of routine or predictable startup, shutdown, and scheduled maintenance events.

**Recordkeeping:** The permittee shall maintain records of all calculations and parameters used to determine emission rates in spreadsheet format and in accordance with Condition B109.

- (1) Hourly Emissions Calculations: The permittee shall calculate the pph NOx, CO, and VOC emission rates for each hour of each SSM event using these parameters:
  - (a) the calculated average hourly flow rate of all gas combusted by the flare, including pilot, purge, and assist gas, if applicable, from Condition A206.B;
  - (b) H<sub>2</sub>S content, total sulfur content, VOC content, and heating value (BTU/scf) of the gas from Condition A206.B;
  - (c) the emission factors represented in the permit application and approved by the Department, for NOx and CO emission rates; and
  - (d) VOC emission rates calculated using the destruction efficiency represented in the permit application and approved by the Department.
- (2) Annual Emissions Calculations: The permittee shall calculate the total tpy SSM emission rates as a daily rolling 12-month total, using the pph emission rates for each hour of the day as follows:
  - (a) During the first 12 months of this condition taking effect, the permittee shall record the daily total tons of NOx, CO, and VOC emissions.
  - (b) After the first 12 months of this condition taking affect, the permittee shall record the daily rolling 12-month total tpy NOx, CO, and VOC emissions.
- (3) SSM Events: The permittee shall retain monitoring records, including the date, time, and duration of each SSM event as defined in Table 107.A, as well as a description of the event including maintenance performed.

## D. SSM-TO, MSSM, and MSST Venting Emissions

**Requirement:** The permittee shall comply with this condition to determine compliance with the allowable emission limits in Table 107.A. The allowable emission limits in Table 107.A were based upon the applicant's worst-case scenario and was calculated using the maximum volume of gas that can be vented from each event. The permittee shall calculate the emissions for the duration from each SSM event using the calculation provided below.

Definition of a TO SSM event is the duration of TO Downtime and based on the number of hours and fraction thereof.

Definition of a Pigging MSSM event is the entire volume of the pigging launcher/receiver.

Definition of a MSST Degassing event is the release of vapors from the complete volume of a condensate tank.

#### (1) Calculation Methodology for Determining Compliance

- (a) The permittee shall perform an extended gas analysis at the facility inlet at least once per year.
- (b) The permittee shall monitor and record each event and the cause of the event and shall record the specific information as required below.
- (c) The permittee shall calculate the emissions from each SSM event using the following calculations.
- (d) Each calendar month, the permittee shall calculate the total monthly emissions from all SSM/M events.
- (e) For each SSM/M event, the permittee shall calculate the emissions resulting from the event. The calculation shall be performed using the example calculations below:

**SSM-TO Venting Emissions (VOC, H<sub>2</sub>S):** [793,340 (scf/ hr)] x # of hours x [Stream Molecular Weight (lb/lb-mol)] x [weight % Pollutant] / ([397.5 scf/lb-mol] x [2,000 lb/ton]) = Pollutant emissions per event (ton/event)

MSSM Pigging Venting Emissions (VOC, H<sub>2</sub>S): [3,850 (scf/event)] x [Stream Molecular Weight (lb/lb-mol)] x [weight % Pollutant] / ([397.5 scf/lb-mol] x [2,000 lb/ton]) = Pollutant emissions per event (ton/event)

MSST Tank Degassing Emissions (VOC, H<sub>2</sub>S): [5808.8 (cf/event) x Maximum True Vapor Pressure (psia)] / [10.731 (psiscf/lb-mol\*R) x (555 R)] x [Stream Molecular Weight (lb/lb-mol)] x [4.86 (Temp Expansion (%))] x [weight % Pollutant] = Pollutant emissions per event (ton/event)

## (2) Emissions included in the Permit Limit and/or Reported as Excess Emissions

(a) All emissions due to routine or predictable SSM must be included and shall not exceed the emission limit in this permit. For emissions due to malfunctions, the permittee shall report these as excess emissions of the emission limit Table 107.A in accordance with 20.2.7 NMAC.

## (3) Emissions Exceeding the Permit Limit

If the monthly rolling 12-month total of SSM exceeds the permitted emission limit, the permittee shall report the emissions as excess emissions in accordance with 20.2.7.110 NMAC.

### (4) 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 be reported as excess emissions of the emission limit in Table 107.A in accordance with 20.2.7 NMAC.

(5) Emissions due to SSM other than those represented in Table 107.A shall be reported as excess emission events.

## **Monitoring:**

- (1) The permittee shall perform an extended gas analysis at the facility inlet at least once per year.
- (2) The permittee shall monitor and record each SSM events and shall record the specific information as required in the condition below.
- (3) The permittee shall monitor and record the specific equipment causing the event and shall identify the cause of the event.
- (4) Each month, the permittee shall monitor and record the cumulative total VOC emissions resulting from SSM events during the first 12 months and, thereafter the monthly rolling 12-month total VOC emissions from all SSM events. Any malfunction emissions that have been reported in a final excess emissions report per 20.2.7.110.A(2) NMAC shall be excluded from this total.
- (5) The permittee shall monitor in accordance with Condition B108 of this permit.

## **Recordkeeping:**

#### (1) Recording for Compliance Determination

- (a) For each SSM event, the permittee shall keep records of:
  - (i) the extended gas analysis documenting the %VOC,

- (ii) the volumetric total gas vented in scf or MMscf,
- (iii) the emission calculation, which shall be based on the calculation methodology required above.
- (b) For each SSM event, the permittee shall identify the equipment and shall identify the cause of the event that is the source of emissions.
- (c) The permittee shall record each SSM event and the total number of events each year for each.
- (d) Each month, the permittee shall record the cumulative total VOC emissions from SSM events during the first 12 months and, thereafter of the monthly rolling 12-month total VOC emissions from SSM events. The permittee shall record the calculations performed to determine the VOC emissions. Any malfunction emissions that have been reported in a final excess emissions report per 20.2.7.110.A(2) NMAC, shall be excluded from this total.

#### (2) Condition B109 Records

The permittee shall keep records in accordance with Condition B109 of this permit.

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

#### E. SSMB Emissions

## **Requirement:**

- (1) At all times, all SSMB for blowdowns, starter vents and gas operated controller vapors shall be routed to the combustor unit COMB-1 and do not vent to the atmosphere.
- (2) The permittee shall perform a facility inlet gas analysis once every year based on a calendar year and track cumulative volumetric gas flows resulting from SSMB.
- (3) The permittee shall demonstrate compliance with the emission limits for SSMB and at Unit COMB-1 by multiplying the volumetric gas flow times the percent weight VOC in the gas analysis.

#### **Monitoring:**

- (1) Once each year, the permittee shall inspect to ensure the routing of all SSMB blowdown to the combustor unit COMB-1 and not vented to atmosphere.
- (2) The permittee shall monitor the facility inlet gas analysis once every year based on a calendar year, the percent VOC of the gas based on the most recent gas analysis, and of the cumulative volume of total gas vented in MMscf used to calculate the VOC emissions due to SSMB blowdown events. The cumulative totals shall be monitored during the first 12 months due to SSM events and, thereafter of the monthly rolling 12-month total VOC emissions.

## Recordkeeping:

- (1) To demonstrate compliance, each month records shall be kept of the cumulative total of VOC emissions during the first 12 months due to SSM events and, thereafter of the monthly rolling 12-month total VOC emissions.
- (2) Records shall also be kept of the inlet 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 due to SSM events.
- (3) 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.

#### **A108 Facility: Allowable Operations**

- A. This facility is authorized for continuous operation. Monitoring, recordkeeping, and reporting are not required to demonstrate compliance with continuous hours of operation.
- B. Facility Inlet Flowrate Limit

**Requirement:** The flowrate of process gas entering the facility shall not exceed 735 MMscf/day. **Monitoring:** The Facility inlet flowrate shall be continuously monitored. The flowrate shall be determined using a monitoring instrument that directly measures natural gas flowrate into the facility with an accuracy of  $\pm$  2% or better.

**Recordkeeping:** The Permittee shall record the daily flowrate of process gas (MMscfd) received at the Facility inlet. Records indicating the daily gas flow shall be maintained onsite for a minimum of five (5) years from the time of recording and made available to Department personnel upon request.

**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

A. Fuel and Fuel Sulfur Requirements (EP-1, 2-EP-1, 3-EP-1, EP-2, 2-EP-2, 3-EP-2, EP-3A, EP-3B, EP-4, 2-EP-4, 3-EP-4, EP-5, 2-EP-5, 3-EP-5, EP-6, 2-EP-6)

**Requirement:** All combustion emission units shall combust only natural gas containing no more than 0.5 grains of total sulfur per 100 dry standard cubic feet.

**Monitoring:** No monitoring is required. Compliance is demonstrated through records.

## Recordkeeping:

- (1) The permittee shall demonstrate compliance with the natural gas or fuel oil limit on total sulfur content by maintaining records of a current, valid purchase contract, tariff sheet or transportation contract for the gaseous or liquid fuel, or fuel gas analysis, specifying the allowable limit or less.
  - (2) If fuel gas analysis is used, the analysis shall not be older than one year.
  - (3) Alternatively, compliance shall be demonstrated by keeping a receipt or invoice from a commercial fuel supplier, with each fuel delivery, which shall include the delivery date, the fuel type delivered, the amount of fuel delivered, and the maximum sulfur content of the fuel.

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

### A111 Facility: 20.2.61 NMAC Opacity

A. 20.2.61 NMAC Opacity Limit (EP-2, 2-EP-2, 3-EP-2, EP-3A, EP-3B, EP-4, 2-EP-4, 3-EP-4, EP-5, 2-EP-5, 3-EP-5, EP-6, 2-EP-6, EP-9, COMB-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:**

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

#### NMAC.

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

#### Recordkeeping:

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

**Reporting:** The permittee shall report in accordance with 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 – Not Required

#### **A202** Glycol Dehydrators

A. Extended Gas Analysis and Emission Calculations (Units EP-7, 2-EP-7, 3-EP-7)

**Requirement:** Compliance with the allowable VOC emission limits in Table 106.A shall be demonstrated by conducting an extended gas analysis on the dehydrator inlet gas annually and by calculating emissions using ProMax, GRI-GlyCalc, or another method if approved by the Department.

**Monitoring:** The permittee shall conduct an annual ProMax or GRI-GlyCalc analysis using the most recent extended gas analysis and verify the input data. The permittee may use a method of calculating dehydrator emissions other than the most current version of ProMax or GRI-GlyCalc if approved by the Department. Changes in the calculated emissions due solely to a change in the calculation methodology shall not be deemed an exceedance of an emission limit.

**Recordkeeping:** The permittee shall identify in a summary table all parameters that were used as inputs in the ProMax or GRI-GLYcalc model. The permittee shall keep a record of the results, noting what program was used and what VOC and HAP emission rates for the dehydrator were obtained from estimates using GRI-GLYcalc.

B. Glycol Pump Circulation Rate (Units EP-7, 2-EP-7, 3-EP-7)

**Requirement:** Compliance with the allowable VOC emission limit in Table 106.A shall be demonstrated by monitoring the glycol pump circulation rate for the unit. The circulation rate shall not exceed 1980 gallons per hour (33 gallons per minute).

**Monitoring:** The permittee shall monitor the circulation rate quarterly based on a calendar quarter (January 1<sup>st</sup> through March 31<sup>st</sup>, April 1 through June 30<sup>th</sup>, July 1<sup>st</sup> through September 30<sup>th</sup>, and October 1<sup>st</sup> through December 31<sup>st</sup>). Monitoring shall include a calibration or visual or audible inspection of pump rate setting.

**Recordkeeping:** The permittee shall maintain records that include a description of the monitoring and are in accordance with Section B109.

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

C. Control Device Inspection: Condenser, Flash Tank, and Thermal Oxidizer System (Units EP-7, 2-EP-7, 3-EP-7, EP-9, BTEX-1, BTEX-2, BTEX-3, EP-4, 2-EP-4, 3-EP-4)

**Requirement:** To demonstrate compliance with the allowable VOC emission limits in Table 106.A:

- (1) The still vent emissions shall be routed to the condenser.
- (2) The condensers (BTEX-1, BTEX-2, BTEX-3) shall be a closed loop system, so the condensable stream from the condenser is sent to the atmospheric tanks.
- (3) The flash tank off-gas and gaseous phase from the condenser shall be sent to the fuel system or the plant inlet. It shall not be released into the atmosphere.
- (4) The non-condensable stream shall be routed to the thermal oxidizer (EP-9).
- (5) The condenser and flash tank shall be operational at all times that the facility is in operation. The thermal oxidizer shall be operational at all times the facility is in operation except for times authorized for Downtime SSM events in Condition A107.C. The condenser, flash tank, and thermal oxidizer shall be installed, operated, and maintained according to manufacturer's specifications or permittee's written recommended policies and procedures. Thermal Oxidizer operating requirements are also established in Section A208 of this permit.

**Monitoring:** The permittee shall inspect the glycol dehydrators and the control equipment semiannually to ensure they are operating as initially designed.

**Recordkeeping:** The permittee shall record the inspection and 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 or permittee's written maintenance recommendations and provided them upon request by the Department.

#### D. 40 CFR 63, Subpart HH (Units EP-7, 2-EP-7, 3-EP-7)

**Requirement:** The units are subject to 40 CFR 63, Subpart HH and the permittee shall comply with all applicable requirements, including the general standards of 40 CFR 63.764.

**Monitoring:** The permittee shall comply with the monitoring requirements of 40 CFR 63.773.

**Recordkeeping:** The permittee shall comply with the recordkeeping requirements of 40 CFR 63.774.

**Reporting:** The permittee shall comply with the applicable reporting requirements of 40 CFR 63.775 and in Section B110.

## A203 Tanks, Loading, and Tank Control

### A. Tank Throughput (Units T-1, T-2, T-3, T-4, T-5, and T-6)

**Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by limiting the monthly rolling 12-month total combined condensate throughput to Units T-1, T-2, T-3, T-4, T-5 to 122,640,000 gallons per year (2,920,000 barrels per year) and the monthly rolling 12-month total produced water throughput to Unit T-6 to 1,030,097 gallons per year (24,526 barrels per year).

**Monitoring:** The permittee shall monitor the monthly total throughput once per month.

**Recordkeeping:** The permittee shall record the monthly total throughput of liquids. Each month, during the first 12 months of monitoring, the permittee shall record the cumulative total liquid throughput and after the first 12 months of monitoring, the permittee shall calculate and record the monthly rolling 12-month total liquid throughput.

Tank breathing and working emissions were calculated using the Promax® program. Emission rates computed using the same parameters, but with a different Department approved algorithm that exceed these values will not be deemed non-compliance with this permit.

Records shall also be maintained in accordance with Section B109.

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

#### B. Truck Loading - Condensate Loadout (Unit LOAD)

**Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by limiting the total annual condensate loadout volume to 2,920,000 barrels per year.

**Monitoring:** The permittee shall monitor the condensate truck loadout volume on a monthly basis

**Recordkeeping:** The permittee shall record the monthly condensate truck loadout volume. Each month during the first 12 months of monitoring the permittee shall record the cumulative condensate loadout volume and after the first 12 months of monitoring, the permittee shall calculate and record a monthly rolling 12-month total loadout volume.

Records shall also be maintained in accordance with Section B109.

## C. Combustor Flame and Visible Emissions (20.2.61 NMAC) (Unit COMB-1)

**Requirement:** Compliance with the allowable emission limits in Section A106 shall be demonstrated by the combustor being equipped with a system to ensure that it is operated with a flame present at all times and operated with no visible emissions.

The unit is subject to the 20% opacity standards in 20.2.61 NMAC and complying with the no visible emissions requirements demonstrates compliance with 20.2.61 NMAC opacity limit.

## **Monitoring:**

### (1) Pilot Flame:

The permittee shall continuously monitor the presence of a pilot flame using a thermocouple or any equivalent device approved by the Department and shall be equipped with a continuous recorder and alarm or equivalent, to detect the presence of a flame.

## (2) Visible Emissions:

Annually, the permittee shall conduct a visible emissions observation in accordance with the requirements at 40 CFR 60, Appendix A, Reference Method 22 to certify compliance with the no visible emission requirement. The observation period is at least 2 consecutive hours where visible emissions are not to exceed a total of 5 minutes during any 2 consecutive hours.

## Recordkeeping:

## (1) Pilot Flame:

The permittee shall record all instances of alarm activation, including the date and cause of alarm activation, actions taken to bring the unit into normal operating conditions, and maintenance activities.

#### (2) Visible Emissions:

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

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

#### D. Combustor Operations (Units COMB-1, T-1, T-2, T-3, T-4, T-5)

**Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by complying with the following:

- 1) The permittee shall install, operate, and maintain the COMB-1 according to the manufacturer's specifications or permittee's written recommended policies and procedures.
- 2) The permittee shall ensure that all emissions from the condensate storage tanks (Units T-1, T-2, T-3, T-4, and T-5) are at all times routed to the COMB-1. The permittee shall ensure that the tanks emissions do not vent to the atmosphere.
- 3) In the event that a leak or defect is detected, the permittee shall repair the leak or defect as soon as practicable, not to exceed thirty days, and in a manner than minimizes emissions to the atmosphere.

**Monitoring:** The permittee shall monitor the following:

- 1) The date, start time, and end time of any downtime and/or maintenance of the COMB-1.
- 2) Monthly, inspect storage tanks (Units T-1, T-2, T-3, T-4 and T-5) for proper routing to the COMB-1 and inspect storage tanks (Units T-1, T-2, T-3, T-4 and T-5) and the COMB-1 for defects. Defects include, but are not limited to, visible cracks, holes, or gaps: broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps or other closure devices.

## Recordkeeping:

- 1) The permittee shall record the name of the person conducting the inspection and the results of all monthly equipment inspections, contemporaneously noting any maintenance or repairs needed to bring storage tanks (Units T-1, T-2, T-3, T-4 and T-5) and/or the COMB-1 into compliance with permit conditions.
- 2) The permittee shall record the date, start time, and end time of any downtime and/or maintenance of the COMB-1.
- 3) The permittee shall maintain a copy of the manufacturer's or permittee's written maintenance recommendations and provided them upon request by the Department.

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

E. Tank Control Requirements - Condensate Stabilization System (T-1, T-2, T-3, T-4, T-5)

**Requirement:** To demonstrate compliance with the allowable VOC emission limits for Units T-1, T-2, T-3, T-4, and T-5 in Table 106.A, the permittee shall ensure that the emissions from the refrigeration system condensate, the slug catcher liquids, and the condensate stabilizer are re-routed back into the facility process stream.

**Monitoring:** The permittee shall perform a semi-annual maintenance evaluation of the stabilization system to ensure it is operating properly.

**Recordkeeping:** The permittee shall record the results of all equipment and control device inspections chronologically, noting any maintenance or repairs needed to bring the stabilization system into compliance.

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

#### **A204** Heaters and Boilers

A. 40 CFR 60, Subpart Dc (Units EP-2, 2-EP-2, 3-EP-2, EP-3A, EP-3B, EP-6, 2-EP-6)

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

**Monitoring:** The permittee shall comply with all applicable monitoring and testing requirements of 40 CFR 60, Subpart Dc.

**Recordkeeping:** The permittee shall comply with the recordkeeping requirements of 40 CFR 60.48c.

**Reporting:** The permittee shall comply with the reporting requirements of 40 CFR 60.48c.

B. Operational Inspection (Units EP-2, 2-EP-2, 3-EP-2, EP-3A, EP-3B, EP-4, 2-EP-4, 3-EP-4, EP-5, 2-EP-5, 3-EP-5, EP-6, 2-EP-6)

**Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by performing periodic inspections to ensure proper operations.

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

**Recordkeeping:** The permittee shall maintain records of operating inspections, describing the results and noting chronologically any adjustments needed to bring a boiler into compliance. Records shall be maintained in accordance with Condition B109.

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

C. 20.2.50 NMAC Natural Gas Fired Heaters (Units EP-3A, EP-3B Amine Reboilers; EP-6, 2-EP-6 Stabilizer Reboilers; EP-2, 2-EP-2, 3\_EP-2 Trim Reboilers) [New and existing natural gas fired heaters greater than 20 MMBTU/hr including heater treaters, heated flash separators, evaporator units, fractionation column heaters, and glycol dehydrator reboilers in use at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations. [This includes heaters used as amine reboilers, even though the amine unit portion is not regulated under Part 50]]

**Requirement:** The units, which are natural gas fired heaters greater than 20 MMBTU/hr, are subject to 20.2.50 NMAC and the permittee shall comply with all applicable requirements, including the general provisions of 20.2.50.112 and the emission standards in 20.2.50.119.B. The units shall comply with these emission standards in accordance with the dates specified in 20.2.50.119.B.

**Monitoring:** The permittee shall comply with the monitoring requirements of 20.2.50.112.B, of 20.2.50.119.C, and in accordance with section B108 of this permit.

**Recordkeeping:** The permittee shall comply with the recordkeeping requirements of 20.2.50.112.C, of 20.2.50.119.D, and in accordance with section B109 of this permit.

**Reporting:** The permittee shall comply with the applicable reporting requirements of 20.2.50.112.D, of 20.2.50.119.E, and in accordance with section B110 of this permit.

# **A205** <u>Turbines</u> – *Not Required*

## A206 Flares

A. Flare Flame and Visible Emissions (20.2.61 NMAC) (Units EP-1, 2-EP-1, 3-EP-1)

**Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by the flare being equipped with a system to ensure that it is operated with a flame present at all times and operated with no visible emissions.

The flare is subject to the 20% opacity standards in 20.2.61 NMAC and complying with the no visible emissions requirements demonstrates compliance with 20.2.61 NMAC opacity limit.

## **Monitoring:**

## (1) Flare Pilot Flame:

The permittee shall continuously monitor the presence of a flare pilot flame using a thermocouple or any equivalent device approved by the Department and shall be equipped with a continuous recorder and alarm or equivalent, to detect the presence of a flame.

#### (2) Visible Emissions:

At least once per year during an SSM event, the permittee shall conduct a visible emissions observation in accordance with the requirements at 40 CFR 60, Appendix A, Reference Method 22 to certify compliance with the no visible emission requirements. Each Method 22 test shall occur for the duration of the blow down 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 SSM events that occur for less than 30 minutes, visible emissions shall not occur for more the 15% during the duration of the event.

# Recordkeeping:

#### (1) Flare Pilot Flame:

The permittee shall record all instances of alarm activation, including the date and time and cause of alarm activation, actions taken to bring the flare into normal operating conditions, and maintenance activities.

#### (2) Visible Emissions:

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. If the visible emissions observation was conducted only on the pilot flame, the record shall also include the reasons that the test could not be conducted during a SSM event.

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

#### B. Flare Gas Flow Monitoring and Gas Analysis (Units EP-1, 2-EP-1, 3-EP-1)

**Requirement:** Compliance with the flare allowable emission limits in Table 106.A and Table 107.A shall be demonstrated by completing the monitoring, recordkeeping, and reporting required by this condition and Condition A107.C. All flow meters and inline chemical composition analyzers shall be installed, calibrated, operated and maintained in accordance with the requirements of Condition B108.H.

#### **Monitoring:**

#### (1) Gas Flow:

(a) One or more gas flowmeters equipped with a chart recorder or data logger (electronic storage) shall be installed to continuously monitor the flow (scf) of each gas stream sent to each flare.

(b) Pilot, purge, and assist gas, if applicable, shall be monitored using a gas flowmeter under (a) or determined using manufacturer's specifications, engineering estimates, or permittee's written polices and procedures.

## (2) Gas Analysis:

- (a) Once per calendar year, the permittee shall perform a gas analysis, including measurement of the H<sub>2</sub>S content, total sulfur content, VOC content, and heating value (BTU/scf) of gas sent to the flare for combustion. Gas analyses shall be separated by a minimum of six (6) months.
- (b) Alternatively, for H<sub>2</sub>S only, in lieu of an annual analysis, H<sub>2</sub>S may be measured quarterly using a stain tube(s) of the appropriate size range or with an inline chemical composition analyzer.
- (3) Calibration: In addition to the requirements of Condition B108.H, flow meters and inline chemical composition analyzers shall be operated, calibrated, and maintained as specified by the site-specific operations and maintenance plan, if applicable.

**Recordkeeping:** The following records shall be maintained in accordance with Condition B109.

#### (1) Gas Flow:

- (a) Records of continuous flowmeter measurements and the hourly flow rate in scf/hr calculated by averaging *a minimum* of four (4) equally spaced readings for each hour.
- (b) Manufacturer's specifications or engineering estimates used for pilot, purge, and assist (if applicable) gas flow rates.
- (2) Gas Analysis: All sample documentation received from the laboratory or testing service company, including H<sub>2</sub>S content, the total sulfur content, the VOC content, and the heating value (BTU/scf), analysis method utilized, and sample chain of custody. If stain tubes are used for measuring H<sub>2</sub>S content, records of the results, including size range of stain tubes used, the date of the test, and the name of the person conducting the test.
- (3) Calibration: Records of all flowmeter and inline monitor certifications, calibrations, data capture calculations and documentation as specified by Condition B108.H, as well as any breakdowns, reasons for the breakdown, and corrective actions. The permittee shall also maintain a copy of the manufacturer specifications for operation and calibration or the site-specific operations and maintenance plan for flowmeters and inline monitors.

**Reporting:** The permittee shall report in accordance with Condition B110. The permittee shall maintain a copy of the manufacturer's specification's, engineering estimates, or permittee's written policies and procedures.

C. Flare Operation Requirement (Units EP-1, 2-EP-1, 3-EP-1)

## **Requirement:**

- 1) The igniter shall be operational at all times gas is sent to the flare.
- 2) The flare shall combust gas at all times gas is sent to the flare.
- 3) The flare shall be installed, operated, and maintained according to manufacturer's specifications or permittee's written policies and procedures.

## **Monitoring:**

The permittee shall:

- 1) Monthly, inspect the flare to ensure it is operating in accordance with the manufacturer's specifications or permittee's written policies and procedures.
- 2) The permittee shall monitor the auto-ignition system each time gas is sent to the flare.

## **Recordkeeping:** The permittee shall record:

- 1) Chronologically, the name of the person conducting the inspection, the results of all equipment inspections, and any maintenance or repairs needed for the flare to be compliant.
- 2) Maintain a copy of the manufacturer's or permittee's maintenance recommendations.
- 3) The date, time, and personnel performing the monitoring of the auto-ignition system, and the results of inspecting the auto-ignition system.

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

### D. Flare Construction and Stack Height (Units 2-EP-1, 3-EP-1)

**Requirement:** Compliance with the established emission limits, modeling and operations represented in the application shall be demonstrated by constructing the flares to the parameters used in the Air Dispersion Modeling. The flare height shall be a minimum of 199 feet above ground for Units 2-EP-1; 100 feet above ground height for EP-1; and 150 above ground height for 3-EP-1. The controlled units shall be connected by hard piping to the flares. The flares must be constructed as described in the permit application and all subsequent materials submitted by the applicant.

**Monitoring:** The permittee shall construct the flares as required and maintain a copy of the stamped engineering specification sheet and as-built drawing.

**Recordkeeping:** Records shall be kept of the post-construction inspections, engineering stamped specification sheets, and as-built drawing.

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

#### E. Open Flares used to comply with 20.2.50 NMAC (Units EP-1, 2-EP-1, 3-EP-1)

**Requirement:** All control devices and closed vent systems used to comply with 20.2.50 NMAC are subject to 20.2.50 NMAC and the permittee shall comply with all applicable requirements, including the general provisions of 20.2.50.112, the general requirements at 20.2.115.B and the requirements at 20.2.50.115.C(1). The units shall comply with these emission standards in accordance with the dates specified in 20.2.50.115.C(1).

**Monitoring:** The permittee shall comply with the monitoring requirements of 20.2.50.112.B, of 20.2.50.115.C (2), and in accordance with section B108 of this permit.

**Recordkeeping:** The permittee shall comply with the recordkeeping requirements of 20.2.50.112.C, of 20.2.50.115.C(3), of 20.2.50.115.F, and in accordance with section B109 of this permit.

**Reporting:** The permittee shall comply with the applicable reporting requirements of 20.2.50.112.D, of 20.2.50.115.C(4), of 20.2.50.115.G, and in accordance with section B110 of this permit.

## **A207** Sulfur Recovery Units – Not Required

#### **A208** Amine Unit and Thermal Oxidizer

A. Amine Unit Control and Thermal Oxidizer Operating Requirements (Unit EP-9 Controlling EP-8, 2-EP-8, 3-EP-8)

**Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by:

- 1) The permittee shall ensure that all off-gases from the amine still vent (Units EP-8, 2-EP-8, 3-EP-8) is at all times routed to the thermal oxidizer (Unit EP-9). Excluding approved downtime periods, the thermal oxidizer shall be operational at all times emissions are sent to it.
- 2) The thermal oxidizer shall be installed, operated, and maintained according to manufacturer's specifications.
- 3) The amine unit flash tank off-gases shall not be released directly to the atmosphere and shall at all times be re-routed to an inlet or other process stream within the facility.

## **Monitoring:**

1) The permittee shall inspect the amine unit and control equipment semi-annually to ensure it is controlled as required and operating in accordance with the manufacturer's or permittee's recommended operating and maintenance procedures.

## Recordkeeping:

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

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

#### B. Thermal Oxidizer Visible Emissions (20.2.61 NMAC) (Unit EP-9)

**Requirement:** The unit is subject to the 20% opacity standards in 20.2.61 NMAC and complying with the no visible emissions requirements demonstrates compliance with 20.2.61 NMAC opacity limit.

#### **Monitoring:**

Annually, the permittee shall conduct a visible emissions observation in accordance with the requirements at 40 CFR 60, Appendix A, Reference Method 22 to certify compliance with the no visible emission requirement. The observation period is at least 2 consecutive hours where visible emissions are not to exceed a total of 5 minutes during any 2 consecutive hours.

#### Recordkeeping:

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

C. Thermal Oxidizer Operation and Emissions Calculation (Unit EP-9)

**Requirement:** Compliance with the allowable emission limits in Tables 106.A shall be demonstrated by completing the monitoring, recordkeeping, and reporting specified below.

## **Monitoring:**

- (1) <u>Flow Monitoring</u>: Gas flowmeters and flow totalizers, equipped with a chart recorder or data logger (electronic storage), shall be installed to monitor gas flow and record the total standard cubic feet (scf) of gas sent to the Thermal Oxidizer including:
  - a. Pilot, purge, and assist gas
    - i. Manufacturer's specifications may be used to determine pilot, purge, and assist gas flow rates.
  - b. Process gas
    - i. Manufacturer's specifications or calculated estimates using Promax, E&P Tanks, or another approved method, may be used to determine process gas flow rates for the unit if a flow meter is deemed impractical due to low or inconsistent flow to the unit.
- (2) <u>Calibration</u>: The flow meter(s), totalizer(s), and if used, the inline monitor shall be operated, calibrated, and maintained as specified by the manufacturer or equivalent and as necessary to ensure correct and accurate readings.
- (3) <u>Hourly Flow Rate</u>: Gas flow rates shall be logged during, or calculated for, each hour and each month that the thermal oxidizer is in operation.
- (4) <u>Gas Analysis</u>: The permittee shall measure the VOC content, and the heating value (Btu/scf) of the gas sent to the thermal oxidizer for combustion. The VOC content, and heating value (Btu/scf) of the natural gas sent to the thermal oxidizer shall be measured at least once annually with an extended gas analysis.

#### **Recordkeeping:** The following records shall be kept:

- (1) <u>Flow Monitoring</u> & (2) <u>Calibration</u>: Records of flowmeter, totalizer, and inline monitor certifications, calibrations, breakdowns, reasons for the breakdown, and corrective actions. If manufacturer's specifications are used to determine pilot and purge fuel gas flow, the manufacturer's specification documentation must be maintained.
- (3) <u>Hourly Flow Rate</u>: Records of the calculated average hourly flowmeter and flow totalizer measurements of process and assist gas sent to the thermal oxidizer in scf/hr.
- (4) <u>Gas Analysis</u>: Gas analysis results as received from the laboratory including the VOC content and the heating value (Btu/scf) and analysis method utilized.

The permittee shall maintain all records in accordance with Section B109.

## D. Thermal Oxidizer Control Efficiency (Unit EP-9)

**Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by maintaining a flame anytime gas is routed to the oxidizer, maintaining a combustion temperature that achieves a destruction efficiency at or above 98% for VOCs, and monitoring unit downtime or malfunction.

**Monitoring:** The permittee shall determine a combustion temperature that achieves the required destruction efficiency from periodic emissions testing performed in accordance with A208.E, monitor the combustion temperature of the thermal oxidizer continuously, and record the average temperature each 24-hour period. Compliance with this condition is defined as operating with temperatures within +/- 5% of the combustion temperature during the emissions test.

**Recordkeeping:** The permittee shall maintain records including the date of each 24-hour average temperature, detail any deficiencies in operation identified, and record any corrective actions taken to restore the control device to operation.

Records shall also be maintained in accordance with Section B109.

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

## E. Thermal Oxidizer Periodic Emissions Testing (Unit EP-9)

**Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by completing periodic emission tests and calculating the destruction efficiency of the thermal oxidizer (TO) during the monitoring period.

**Monitoring:** The permittee shall test using EPA Reference Methods subject to the requirements and limitations of Section B108, General Monitoring Requirements. Emission testing is required for un-speciated VOCs <u>pre-control</u> and <u>post-TO</u> (stack). Periodic emissions testing shall be carried out as described below.

Test results for pre-control and post-control VOCs shall be used to calculate the destruction efficiency of the TO at the operator-defined operating conditions. Compliant destruction efficiency is defined as a percentage equal to or greater than 99.9%.

- (1) The testing shall be conducted annually:
  - a. Testing frequency shall be once per year.
  - b. The monitoring period is defined as a calendar year.
- (2) 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.
- (3) The permittee shall follow the General Testing Procedures of Section B111.

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

**Reporting:** The permittee shall report in accordance with Section B109, B110, and B111.

F. Enclosed Combustion Devices (ECD) and Thermal Oxidizers (TO) used to comply with 20.2.50 NMAC (Unit EP-9)

**Requirement:** All control devices and closed vent systems used to comply with 20.2.50 NMAC are subject to 20.2.50 NMAC and the permittee shall comply with all applicable requirements, including the general provisions of 20.2.50.112, the general requirements at 20.2.115.B and the requirements at 20.2.50.115.D(1). The units shall comply with these emission standards in accordance with the dates specified in 20.2.50.115.D(1).

**Monitoring:** The permittee shall comply with the monitoring requirements of 20.2.50.112.B, of 20.2.50.115.D(2), and in accordance with section B108 of this permit.

**Recordkeeping:** The permittee shall comply with the recordkeeping requirements of 20.2.50.112.C, of 20.2.50.115.D(3), of 20.2.50.115.F, and in accordance with section B109 of this permit.

**Reporting:** The permittee shall comply with the applicable reporting requirements of 20.2.50.112.D, of 20.2.50.115.D(4), of 20.2.50.115.G, and in accordance with section B110 of this permit.

## A209 Fugitives

A. 40 CFR 60, Subpart OOOOa - Fugitives (Unit FUG)

**Requirement:** The collection of fugitive emissions components (as defined in 40 CFR §60.5430a) at this facility are subject to the fugitive emissions GHG and VOC leak standards at 40 CFR §60.5397a of 40 CFR 60, Subpart OOOOa. The permittee shall comply with all applicable requirements in Subparts A and OOOOa.

**Monitoring:** The permittee shall implement a leak detection and repair program and shall comply with the standards as specified at 40 CFR §60.5397a. Alternative means of emissions limitations at §60.5398a can only be approved by the US EPA.

**Recordkeeping:** The permittee shall comply with the applicable recordkeeping requirements specified at 40 CFR §60.5420a(c), including §60.5420a(c)(15)

**Reporting:** The permittee shall comply with the applicable reporting requirements specified at 40 CFR §60.5420a(b), including §60.5420a(b)(7).

B. 40 CFR 60, Subpart OOOOa - Reciprocating Compressors (Units D-1 thru D-4, 2-D-1 thru 2-D-4, 3-D-1 thru 3-D-4)

**Requirement:** The reciprocating compressors at this facility are subject to 40 CFR 60, Subparts A and OOOOa and the permittee shall comply with the notification requirements in Subpart A and the specific requirements of Subpart OOOOa, including standards in §60.5385a.

**Monitoring:** The permittee shall comply with all applicable monitoring requirements in 40 CFR 60, Subpart A and Subpart OOOOa, including but not limited to §60.5410a, §60.5411a, §60.5415a, and §60.5416a.

**Recordkeeping:** The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart OOOOa, including but not limited to §60.5420a.

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

# C. 40 CFR 60, Subpart OOOOa – Tanks (Units T-1, T-2, T-3, T-4, T-5)

**Requirement:** The permittee shall comply with 40 CFR 60, Subparts A and OOOOa if any units are constructed, modified, or reconstructed after the applicability date in 40 CFR 60.5365a. The permittee shall comply with the requirements in Subpart A and the specific requirements of 40 CFR 60.5365a(e)(3).

**Monitoring:** The permittee shall comply with all applicable monitoring and testing requirements in 40 CFR 60, Subpart A and Subpart OOOOa.

**Recordkeeping:** The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart OOOOa.

**Reporting:** The permittee shall comply with all applicable reporting requirements in 40 CFR 60, Subpart A and Subpart OOOOa and in Section B110.

### D. 40 CFR 60, Subpart OOOOa – Amine Unit (Units EP-8, 2-EP-8, 3-EP-8)

**Requirement:** The unit is subject to 40 CFR 60, Subparts A and OOOOa if the source is constructed, modified, or reconstructed after the applicability date in 40 CFR 60.5365a. The permittee shall comply with the applicable requirements in Subpart A and the specific requirements of Subpart OOOOa.

Per 60.5365a(g)(3) this unit is required to comply with 60.5423a(c) but is not required to comply with 60.5405a through 60.5407a, 60.5410a(g), or 60.5415a(g).

**Monitoring:** The permittee shall comply with all applicable monitoring and testing requirements in 40 CFR 60, Subpart A and Subpart OOOOa.

**Recordkeeping:** The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart OOOOa, including but not limited to 60.5423a(c).

**Reporting:** The permittee shall comply with all applicable reporting requirements in 40 CFR 60, Subpart A and Subpart OOOOa, including but not limited to 60.5423a(c), and in Section B110.

E. 20.2.50 NMAC Equipment Leaks and Fugitive Emissions (Unit FUG) applies at all well sites, tank batteries, gathering and boosting stations, natural gas processing plants, transmission compressor stations, and associated piping and components. Does not include components in air or water service.

**Requirement:** The unit is subject to 20.2.50 NMAC and the permittee shall comply with all applicable requirements, including the general provisions of 20.2.50.112, the requirements in 20.2.50.116.B, as well as the repair requirements under 20.2.50.116.E.

**Monitoring:** The permittee shall comply with the monitoring requirements of 20.2.50.112.B, of 20.2.50.116.C, and in accordance with section B108 of this permit.

**Recordkeeping:** The permittee shall comply with the recordkeeping requirements of 20.2.50.112.C, of 20.2.50.116.F, and in accordance with section B109 of this permit.

**Reporting:** The permittee shall comply with the applicable reporting requirements of 20.2.50.112.D, of 20.2.50.116.G, and in accordance with section B110 of this permit.

F. 20.2.50 NMAC Pig Launchers and Receivers (Unit MSSM-Pigging and Component Venting)

**Requirement:** The unit is subject to 20.2.50 NMAC and the permittee shall comply with all applicable requirements, including the general provisions of 20.2.50.112 and the emission standards in 20.2.50.121.B. The units shall comply with these emission standards in accordance with the dates specified in 20.2.50.121.B.

**Monitoring:** The permittee shall comply with the monitoring requirements of 20.2.50.112.B, of 20.2.50.121.C, and in accordance with section B108 of this permit.

**Recordkeeping:** The permittee shall comply with the recordkeeping requirements of 20.2.50.112.C, of 20.2.50.121.D, and in accordance with section B109 of this permit.

**Reporting:** The permittee shall comply with the applicable reporting requirements of 20.2.50.112.D, of 20.2.50.121.E, and in accordance with section B110 of this permit.

G. 20.2.50 NMAC Electric Compressors Seals (Reciprocating Compressors Units D-1 thru D-7, 2-D-1 thru 2-D-8, 3-D-1 thru 3-D-8)

**Requirement:** The unit are subject to 20.2.50 NMAC and the permittee shall comply with all applicable requirements, including the general provisions of 20.2.50.112 and the emission standards in 20.2.50.114.B. The units shall comply with these emission standards in accordance with the dates specified in 20.2.50.114.B.

**Monitoring:** The permittee shall comply with the monitoring requirements of 20.2.50.112.B, of 20.2.50.114.C, and in accordance with section B108 of this permit.

**Recordkeeping:** The permittee shall comply with the recordkeeping requirements of 20.2.50.112.C, of 20.2.50.114.D, and in accordance with section B109 of this permit.

**Reporting:** The permittee shall comply with the applicable reporting requirements of 20.2.50.112.D, of 20.2.50.114.E, and in accordance with section B110 of this permit.

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

# 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 the Air Quality Bureau Compliance Reporting (AQBCR) system 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.
- H. Unless otherwise indicated by Specific Conditions or regulatory requirements, all instrumentation used for monitoring in accordance with applicable requirements including emission limits, to measure parameters including but not limited to flow, temperature, pressure and chemical composition, or used to continuously monitor

emission rates and/or other process operating parameters, shall be subject to the following requirements:

- (1) The owner or operator shall install, calibrate, operate and maintain monitoring instrumentation (monitor) according to the manufacturer's procedures and specifications and the following requirements.
  - (a) The monitor shall be located in a position that provides a representative measurement of the parameter that is being monitored.
  - (b) At a minimum, the monitor shall complete one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
  - (c) At a minimum, the monitor shall be spanned to measure the normal range +/- 5% of the parameter that is being monitored.
  - (d) At least semi-annually, perform a visual inspection of all components of the monitor for physical and operational integrity and all electrical connections for oxidation and galvanic corrosion.
  - (e) Recalibrate the monitor in accordance with the manufacturer's procedures and specifications at the frequency specified by the manufacturer, or every two years, whichever is less.
- (2) Except for malfunctions, associated repairs, and required quality assurance or control activities (including calibration checks and required zero and span adjustments), the permittee shall operate and maintain all monitoring equipment at all times that the emissions unit or the associated process is operating.
- (3) The monitor shall measure data for a minimum of 90 percent of the time that the emissions unit or the associated process is in operation, based on a calendar monthly average.
- (4) The owner or operator shall maintain records in accordance with Section B109 to demonstrate compliance with the requirements in B108H (1)-(3) above, as applicable.

## **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

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

## A. Initial Compliance Tests

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

- (1) Initial compliance test requirements from previous permits (if any) are still in effect, unless the tests have been satisfactorily completed. Compliance tests may be reimposed if it is deemed necessary by the Department to determine whether the source is in compliance with applicable regulations or permit conditions. (20.2.72 NMAC Sections 210.C and 213)
- (2) Initial compliance tests shall be conducted within sixty (60) days after the unit(s) achieve the maximum normal production rate. If the maximum normal production rate does not occur within one hundred twenty (120) days of source startup, then the tests must be conducted no later than one hundred eighty (180) days after initial startup of the source.
- (3) The default time period for each test run shall be **at least** 60 minutes and each performance test shall consist of three separate runs using the applicable test method. For the purpose of determining compliance with an applicable emission limit, the arithmetic mean of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Department approval, be determined using the arithmetic mean of the results of the two other runs.
- (4) Testing of emissions shall be conducted with the emissions unit operating at 90 to 100 percent of the maximum operating rate allowed by the permit. If it is not possible to test at that rate, the source may test at a lower operating rate

- (5) Testing performed at less than 90 percent of permitted capacity will limit emission unit operation to 110 percent of the tested capacity until a new test is conducted.
- (6) If conditions change such that unit operation above 110 percent of tested capacity is possible, the source must submit a protocol to the Department within 30 days of such change to conduct a new emissions test.

#### B. EPA Reference Method Tests

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

- (1) All compliance tests required by this permit shall be conducted in accordance with the requirements of CFR Title 40, Part 60, Subpart A, General Provisions, and the following EPA Reference Methods as specified by CFR Title 40, Part 60, Appendix A:
  - (a) Methods 1 through 4 for stack gas flowrate
  - (b) Method 5 for particulate matter (PM)
  - (c) Method 6C SO<sub>2</sub>
  - (d) Method 7E for NO<sub>X</sub> (test results shall be expressed as nitrogen dioxide (NO<sub>2</sub>) using a molecular weight of 46 lb/lb-mol in all calculations (each ppm of NO/NO<sub>2</sub> is equivalent to 1.194 x 10-7 lb/SCF)
  - (e) Method 9 for visual determination of opacity
  - (f) Method 10 for CO
  - (g) Method 19 for particulate, sulfur dioxide and nitrogen oxides emission rates. In addition, Method 19 may be used in lieu of Methods 1-4 for stack gas flowrate. The permittee shall provide a contemporaneous fuel gas analysis (preferably on the day of the test, but no earlier than three months prior to the test date) and a recent fuel flow meter calibration certificate (within the most recent quarter) with the final test report.
  - (h) Method 7E or 20 for Turbines per §60.335 or §60.4400
  - (i) Method 22 for visual determination of fugitive emissions from material sources and smoke emissions from flares
  - (j) Method 25A for VOC reduction efficiency
  - (k) Method 29 for Metals
  - (l) Method 30B for Mercury from Coal-Fired Combustion Sources Using Carbon Sorbent Traps
  - (m) Method 201A for filterable PM<sub>10</sub> and PM<sub>2.5</sub>

- (n) Method 202 for condensable PM
- (o) Method 320 for organic Hazardous Air Pollutants (HAPs)
- (2) Permittees may propose test method(s) that are not listed in Section B111.B(1). These methods may be used if prior approval is received from the Department.
- C. Periodic Monitoring and Portable Analyzer Requirements for the Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters
  - Periodic emissions tests (periodic monitoring) shall be conducted in accordance with the following requirements:
  - (1) Periodic emissions tests may be conducted in accordance with EPA Reference Methods or by utilizing a portable analyzer. Periodic monitoring utilizing a portable analyzer shall be conducted in accordance with the requirements of the current version of ASTM D 6522. However, if a facility has met a previously approved Department criterion for portable analyzers, the analyzer may be operated in accordance with that criterion until it is replaced.
  - (2) The default time period for each test run shall be **at least** 20 minutes.
    - Each performance test shall consist of three separate runs. The arithmetic mean of results of the three runs shall be used to determine compliance with the applicable emission limit.
  - (3) Testing of emissions shall be conducted in accordance with the requirements at Section B108.E.
  - (4) During emissions tests, pollutant and diluent concentration shall be monitored and recorded. Fuel flow rate shall be monitored and recorded if stack gas flow rate is determined utilizing Reference Method 19. This information shall be included with the test report furnished to the Department.
  - (5) Stack gas flow rate shall be calculated in accordance with Reference Method 19 utilizing fuel flow rate (scf) determined by a dedicated fuel flow meter and fuel heating value (Btu/scf). The permittee shall provide a contemporaneous fuel gas analysis (preferably on the day of the test, but no earlier than three months prior to the test date) and a recent fuel flow meter calibration certificate (within the most recent quarter) with the final test report. Alternatively, stack gas flow rate may be determined by using EPA Reference Methods 1-4.
  - (6) The permittee shall submit a notification and protocol for periodic emissions tests upon the request of the Department.
- D. Initial Compliance Test and RATA Procedures

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

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

#### E. General Compliance Test Procedures

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

- (1) Equipment shall be tested in the "as found" condition. Equipment may not be adjusted or tuned prior to any test for the purpose of lowering emissions, and then returned to previous settings or operating conditions after the test is complete.
- (2) The stack shall be of sufficient height and diameter and the sample ports shall be located so that a representative test of the emissions can be performed in accordance with the requirements of EPA Reference Method 1 or the current version of ASTM D 6522, as applicable.
- (3) Test reports shall be submitted to the Department no later than 30 days after completion of the test.

## **B112** Compliance

A. The Department shall be given the right to enter the facility at all reasonable times to verify the terms and conditions of this permit. Required records shall be organized by date and subject matter and shall at all times be readily available for inspection. The permittee, upon verbal or written request from an authorized representative of the Department who appears at the facility, shall immediately produce for inspection or copying any records required to be maintained at the facility. Upon written request at other times, the permittee shall deliver to the Department paper or electronic copies of any and all required records maintained on site or at an off-site location. Requested records shall be copied and delivered at the permittee's expense within three business days from receipt of request unless the Department allows additional time. Required records may include records required by permit and other information necessary to

- demonstrate compliance with terms and conditions of this permit. (NMSA 1978, Section 74-2-13)
- B. A copy of the most recent permit(s) issued by the Department shall be kept at the permitted facility or (for unmanned sites) at the nearest company office and shall be made available to Department personnel for inspection upon request. (20.2.72.210.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** 

REPLACMENT ENGINE

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

#### Where

 $g = gravitational constant = 32.2 ft/sec^2$ 

h1 = existing stack height, feet

v1 = exhaust velocity, existing engine, feet per second

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

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

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

h2 = replacement stack height, feet

v2 = exhaust velocity, replacement engine, feet per second

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

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

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

- (c) Test measurement of NOx and CO emissions from the temporary replacement engine shall be performed in accordance with Section B111 with the exception of Condition B111A(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 NOx 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 NOx 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, <u>Permits Prevention of Significant Deterioration</u>, 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

## C101 **Definitions**

- A. "Daylight" is defined as the time period between sunrise and sunset, as defined by the Astronomical Applications Department of the U.S. Naval Observatory. (Data for one day or a table of sunrise/sunset for an entire year can be obtained at <a href="http://aa.usno.navy.mil/">http://aa.usno.navy.mil/</a>. Alternatively, these times can be obtained from a Farmer's Almanac or from <a href="http://www.almanac.com/rise/">http://www.almanac.com/rise/</a>).
- B. "Decommission" and "Decommissioning" applies to units left on site (not removed) and is defined as the complete disconnecting of equipment, emission sources or activities from the process by disconnecting all connections necessary for operation (i.e. piping, electrical, controls, ductwork, etc.).
- C. **"Exempt Sources"** and **"Exempt Activities"** is defined as those sources or activities that are exempted in accordance with 20.2.72.202 NMAC. Note; exemptions are only valid for most 20.2.72 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 <a href="http://aa.usno.navy.mil/">http://aa.usno.navy.mil/</a>. Alternatively, these times can be obtained from a Farmer's Almanac or from <a href="http://www.almanac.com/rise/">http://www.almanac.com/rise/</a>).
- 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 NOx or NO2. (20.2.2 NMAC)
- M. "NOx" see  $NO_2$
- 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

	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
	Air Quality Control Region
	American Society for Testing and Materials
	British thermal unit
CAA	Clean Air Act of 1970 and 1990 Amendments
CEM	continuous emissions monitoring
	cubic feet per hour
cfm	cubic feet per minute
CFR	
CI	compression ignition
CO	carbon monoxides
COMS	continuous opacity monitoring system
	Environmental Improvement Board
	United States Environmental Protection Agency
	grains per one hundred cubic feet
•	grains per dry standard cubic foot
•	Gas Research Institute
	hazardous air pollutant
	horsepower
±.	hydrogen sulfide
	internal combustion
	kilowatts per hour
	per neur

11. /1
lb/hr pounds per hou
lb/MMBtu pounds per million British thermal uni
MACT
MMcf/hr million cubic feet per hou
MMscfmillion standard cubic fee
N/Anot applicable
NAAQSNational Ambient Air Quality Standard
NESHAPNational Emission Standards for Hazardous Air Pollutant
NG
NGL
NMAAQSNew Mexico Ambient Air Quality Standard
NMAC
NMED
NMSA
NOxnitrogen oxide
NSCRnon-selective catalytic reduction
NSPS
NSR
PEM parametric emissions monitoring
PM particulate matter (equivalent to TSP, total suspended particulate
PM <sub>10</sub> particulate matter 10 microns and less in diamete
PM <sub>2.5</sub>
pphpounds per hou
ppmv
PSD
RATA
RICE reciprocating internal combustion engine
rpm revolutions per minute
scfm standard cubic feet per minute
SI spark ignition
SO <sub>2</sub> sulfur dioxid
SSM
TAP Toxic Air Pollutan
TBDto be determined
THCtotal hydrocarbon
TSP
tpytons per yea
ULSD
USEPA United States Environmental Protection Agency
UTM
UTMH
UTMV
VHAPvolatile hazardous air pollutan
VOCvolatile organic compound