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AIR QUALITY BUREAU
NEW SOURCE REVIEW PERMIT
Issued under 20.2.72 NMAC

Note to Applicant for Draft Permit Reviews: **The AQB permit specialist provides this draft permit to the applicant as a courtesy to assist AQB with developing practically enforceable permit terms & conditions and correcting any technical errors. Please note that the draft permit may change following completion of the Department's internal reviews. If AQB makes additional changes, and as time allows, the applicant may be provided an opportunity for additional review before the permit is issued.**

Certified Mail No: xxxx xxxx xxxx xxxx
Return Receipt Requested

DRAFT AS OF 2/11/2020

NSR Permit No:	7482-M1
Facility Name:	3 Bear Libby Gas Plant
Facility Owner/Operator:	3 Bear Delaware Operating – NM, LLC.
Mailing Address:	1512 Larimer St. Suite 540 Denver, CO 80202
TEMPO/IDEA ID No:	38067-PRN20190001
AIRS No:	35-025-1281
Permitting Action:	NSR – Significant Revision
Source Classification:	TV Major
Facility Location:	638430 m E by 3601510 m N, Zone 13; Datum WGS84
County:	Lea
Air Quality Bureau Contact	Julia Kuhn
Main AQB Phone No.	(505) 476-4300

Liz Bisbey-Kuehn **Date**
Bureau Chief
Air Quality Bureau

[Delete all below at time final permit submitted for signature.]
File Name: NSR_Permit_Parta_Master
Save Date: 6/18/2019
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PART A FACILITY SPECIFIC REQUIREMENTS

A100 Introduction

A. This permit, NSR 7482-M1, supersedes all portions of Air Quality Permit 7482, issued January 8, 2018, 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A. The term of this permit is permanent unless withdrawn or cancelled by the Department.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 Facility: Description

A. The function of the 3 Bear Libby Gas Plant is to gather and receive up to 60MMScf/day of gas from three surrounding compressor stations owned and operated by 3Bear as well. Libby will separate natural gas liquids (NGL's) from the field gas, producing natural gas liquids and a residue gas for transmission to a pipeline owned by others. The process utilizes a cryogenic gas separation plant and associated compressors for collecting field gas from the gathering system nearby. Gas and NGL's will be piped to the respective nearby interconnect metering stations, by others. The plant is to be located within 5 miles of the residue gas and NGL pipelines.

B. This facility is located approximately 16.2 miles southwest of Monument, in Lea County, New Mexico.

C. This modification consists of: (1) addition of residue compressor engine options, (2) addition of generator engine, (3) update to TK 1-6 as follows: one gunbarrel tank, four condensate tanks, one slop oil tank, (4) addition of one produced water tank, (5) removal of one methanol tank, (6) addition of one condensate loadout, (7) fugitive emissions update, (8) revision of compressor blowdowns, (9) revision of plant blowdowns, (10) update to emission unit IDs, and (11) increasing emission limits. 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)	145.8
Carbon Monoxide (CO)	241.7
Volatile Organic Compounds (VOC) [1]	182.8
Sulfur Dioxide (SO_2)	238.4
Particulate Matter (total suspended)	9.1
Particulate Matter 10 microns or less (PM_{10})	8.9
Particulate Matter 2.5 microns or less ($PM_{2.5}$)	8.9
Greenhouse Gas (GHG) as CO_2e	254,861

1. VOC total includes emissions from Fugitives, SSM and Malfunctions.
2. PM is a regulated new source review pollutant per 20.2.74 NMAC Prevention of Significant

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)
Acetaldehyde	2.9
Acrolein	1.8
Formaldehyde	8.5
n-hexane	1.8
Total HAPs**	15.7

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

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

A103 Facility: Applicable Regulations

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

Table 103.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
20.2.1 NMAC General Provisions	X	Entire Facility
20.2.3 NMAC Ambient Air Quality Standards	X	Entire Facility
20.2.7 NMAC Excess Emissions	X	Entire Facility
20.2.38 NMAC Hydrocarbon Storage Facilities	X	TK 2-6
20.2.61 NMAC Smoke and Visible Emissions	X	ENG 1-12, HTR 1-2, TO-1, FL 1-2, GEN 1-2
20.2.70 NMAC Operating Permits	X	Entire Facility
20.2.71 NMAC Operating Permit Emission Fees	X	Entire Facility
20.2.72 NMAC Construction Permit	X	Entire Facility

Table 103.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
20.2.73 NMAC Notice of Intent and Emissions Inventory Requirements	X	Entire Facility
20.2.74 NMAC Permits – Prevention of Significant Deterioration (PSD)	X	NA
20.2.75 NMAC Construction Permit Fees	X	Entire Facility
20.2.77 NMAC New Source Performance Standards	X	Units subject to 40 CFR 60 ENG 1-12 (potentially), HTR 1-2, FUG 1-2, COMP, AMINE-1, GEN 1-2
20.2.78 NMAC Emissions Standards for Hazardous Air Pollutants	X	NA Units subject to 40 CFR 61
20.2.82 NMAC Maximum Achievable Control Technology Standards for Source Categories of HAPs	X	Units subject to 40 CFR 63 ENG 1-12 (potentially), GEN 1-2
40 CFR 50 National Ambient Air Quality Standards	X	Entire Facility
40 CFR 60, Subpart A, General Provisions	X	ENG 1-12 (potentially), HTR 1-2, FUG 1-2, COMP, AMINE-1, GEN 1-2
40 CFR 60, Subpart Dc	X	HTR 1-2
40 CFR 60, Subpart IIII	X	GEN 2
40 CFR 60, Subpart JJJJ	X	ENG 1-12 (potentially), GEN-1
40 CFR 60, Subpart OOOOa	X	FUG 1-2, COMP, AMINE-1
40 CFR 63, Subpart A, General Provisions	X	ENG 1-12 (potentially), GEN 1-2
40 CFR 63, Subpart ZZZZ	X	ENG 1-12 (potentially), GEN 1-2

A104 Facility: Regulated Source

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.

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Max/Site	Operating Capacity Max/Site
[1]ENG-1	Engine Option #1							
[1]ENG-1	Caterpillar G3508 4 SLB RICE/Compressor Option 1	Caterpillar	G3508	TBD	12-JUN-06	01-JUL-10	690 hp / 690 hp	690 hp / 690 hp
[1]ENG-2	Engine Option #2							
[1]ENG-2	Caterpillar G3516 4 SLB RICE/Compressor Option 2	Caterpillar	G3516	TBD	12-JUN-06	01-JUL-10	1380 hp / 1380 hp	1380 hp / 1380 hp
ENG-3	Caterpillar G3516 4 SLB RICE/Compressors	Caterpillar	G3516	TBD	12-JUN-06	01-JUL-10	1380 hp / 1380 hp	1380 hp / 1380 hp
ENG-4	Caterpillar G3516 4 SLB RICE/Compressors	Caterpillar	G3516	TBD	12-JUN-06	01-JUL-10	1380 hp / 1380 hp	1380 hp / 1380 hp
[1]ENG 5-8	Engine Option #1							
[1]ENG-5	Caterpillar G3516 4 SLB RICE/Compressors	Caterpillar	G3516	TBD	12-JUN-06	01-JUL-10	1380 hp / 1380 hp	1380 hp / 1380 hp
[1]ENG-6	Caterpillar G3516 4 SLB RICE/Compressors	Caterpillar	G3516	TBD	12-JUN-06	01-JUL-10	1380 hp / 1380 hp	1380 hp / 1380 hp
[1]ENG-7	Caterpillar G3516 4 SLB RICE/Compressors	Caterpillar	G3516	TBD	12-JUN-06	01-JUL-10	1380 hp / 1380 hp	1380 hp / 1380 hp
[1]ENG-8	Caterpillar G3516 4 SLB RICE/Compressors	Caterpillar	G3516	TBD	12-JUN-06	01-JUL-10	1380 hp / 1380 hp	1380 hp / 1380 hp
[1]ENG 9-12	Engine Option #2							
[1]ENG-9	Waukesha 7044 4 SLB RICE/Compressors	Waukesha	7044	TBD	12-JUN-06	01-JUL-10	1680 hp / 1680 hp	1680 hp / 1680 hp
[1]ENG-10	Waukesha 7044 4 SLB RICE/Compressors	Waukesha	7044	TBD	12-JUN-06	01-JUL-10	1680 hp / 1680 hp	1680 hp / 1680 hp

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Max/Site	Operating Capacity Max/Site
[1]ENG-11	Waukesha 7044 4 SLB RICE/Compressors	Waukesha	7044	TBD	12-JUN-06	01-JUL-10	1680 hp / 1680 hp	1680 hp / 1680 hp
[1]ENG-12	Waukesha 7044 4 SLB RICE/Compressors	Waukesha	7044	TBD	12-JUN-06	01-JUL-10	1680 hp / 1680 hp	1680 hp / 1680 hp
TK-1	Gunbarrel Tank	TBD	TBD	TBD	01-APR-18	01-APR-18	500 bbl / 500 bbl	500 bbl / 32172 gal/y
TK-2	Condensate Tank	TBD	TBD	TBD	08-JAN-18	01-APR-18	400 bbl / 400 bbl	400 bbl / 2299500 gal/y
TK-3	Condensate Tank	TBD	TBD	TBD	08-JAN-18	01-APR-18	400 bbl / 400 bbl	400 bbl / 2299500 gal/y
TK-4	Condensate Tank	TBD	TBD	TBD	08-JAN-18	01-APR-18	400 bbl / 400 bbl	400 bbl / 2299500 gal/y
TK-5	Condensate Tank	TBD	TBD	TBD	08-JAN-18	01-APR-18	400 bbl / 400 bbl	400 bbl / 2299500 gal/y
TK-6	Slop Oil Tank	TBD	TBD	TBD	08-JAN-18	01-APR-18	400 bbl / 400 bbl	400 bbl / 64644 gal/y
PWTK-1	Produced Water Tank	TBD	TBD	TBD	01-APR-18	01-APR-18	400 bbl / 400 bbl	400 bbl / 64644 gal/y
HTR-1	Heater	TBD	TBD	TBD	08-JAN-18	01-APR-18	49.42 MM BTU/h / 49.42 MM BTU/h	49.42 MM BTU/h / 49.42 MM BTU/h
HTR-2	Heater	TBD	TBD	TBD	08-JAN-18	01-APR-18	11 MM BTU/h / 11 MM BTU/h	11 MM BTU/h / 11 MM BTU/h
CONDLOAD -1	Truck Loading	NA	NA	NA	NA	NA	219000 bbl/y	219000 bbl/y
OILLOAD-1	Truck Loading	NA	NA	NA	NA	NA	1532 bbl/y	1532 bbl/y
FUG-1	Fugitives	NA	NA	NA	NA	NA	NA	NA
FUG-2	Fugitives	NA	NA	NA	NA	NA	NA	NA

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Max/Site	Operating Capacity Max/Site
AMINE-1	Amine sweetening unit	TBD	TBD	TBD	08-JAN-18	NA	60 MM SCF/d / 60 MM SCF/d	60 MM SCF/d / 60 MM SCF/d
TO-1	Thermal Oxidizer (Incinerator)	TBD	TBD	TBD	08-JAN-18	1-FEB-2018	TBD	TBD
FL-1	Process Flare	TBD	TBD	TBD	08-JAN-18	NA	TBD	TBD
FL-2	Process Flare	TBD	TBD	TBD	08-JAN-18	NA	TBD	TBD
PLANT-BD	Plant Blowdown Flaring	TBD	TBD	NA	NA	NA	NA	NA
COMP	Compressor Blowdown Flaring	TBD	TBD	NA	NA	NA	NA	NA
MAIN-1	Maintenance Activities	NA	NA	NA	NA	NA	NA	NA
UP-MAL	Malfunctions Venting	NA	NA	NA	NA	NA	NA	NA

1. The Permittee has an option of installing either Unit ENG-1 or ENG-2 and installing either ENG-5 through ENG-8, or ENG-9 through ENG-12.
2. All TBD (to be determined) units and like-kind engine replacements must be evaluated for applicability to NSPS and requirements.

A105 Facility: Control Equipment

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

Table 105: Control Equipment List:

Control Equipment Unit No.	Control Description	Pollutant being controlled	Control for Unit Number(s)[1]
ENG-1	Oxidation Catalyst and Air Fuel Ratio Controller	VOC, CO and CH2O	ENG-1
ENG 2-8	Oxidation Catalyst and Air Fuel Ratio Controller	VOC, CO and CH2O	ENG 2-8
ENG 9-12	Non-Selective Catalytic Reduction	NOx, CO	ENG 9-12
TO	Thermal Oxidizer	VOC, H2S	AMINE-1

Table 105: Control Equipment List:

Control Equipment Unit No.	Control Description	Pollutant being controlled	Control for Unit Number(s)[1]
FL-1	Upset/Maintenance Flare	VOC	AMINE-1 (during TO downtime), COMP, PLANT BD
FL-2	Tank Flare	VOC	TK 1-6, PWTK-1, CONDLOAD-1, OILLOAD-1

1. Control for unit number refers to a unit number from the Regulated Equipment List.

A106 Facility: Allowable Emissions

A. The following Section lists the emission units and their allowable emission limits. (40 CFR 50, 40 CFR 60, Subparts A, Dc, JJJJ and OOOOa, 40 CFR 63, Subparts A and ZZZZ, 20.2.72.210.A and B.1 NMAC).

Table 106.A: Allowable Emissions

Unit No.	NO_x (pph.)	[1]NO_x (tpy.)	CO (pph)	CO (tpy)	VOC (pph)	VOC (tpy)	SO_2 (pph)	SO_2 (tpy)	PM_{10} (pph)	PM_{10} (tpy)	$PM_{2.5}$ (pph)	$PM_{2.5}$ (tpy)
[1]ENG-1	1.5	6.7	3.0	13.3	1.4	6.1	<	<	0.1	0.3	0.1	0.3
[1]ENG-2	3.0	13.3	2.4	10.4	2.4	10.5	<	<	0.1	0.5	0.1	0.5
ENG-3	3.0	13.3	2.4	10.4	2.4	10.5	<	<	0.1	0.5	0.1	0.5
ENG-4	3.0	13.3	2.4	10.4	2.4	10.5	<	<	0.1	0.5	0.1	0.5
[1]ENG-5	3.0	13.3	2.4	10.4	2.4	10.5	<	<	0.1	0.5	0.1	0.5
[1]ENG-6	3.0	13.3	2.4	10.4	2.4	10.5	<	<	0.1	0.5	0.1	0.5
[1]ENG-7	3.0	13.3	2.4	10.4	2.4	10.5	<	<	0.1	0.5	0.1	0.5
[1]ENG-8	3.0	13.3	2.4	10.4	2.4	10.5	<	<	0.1	0.5	0.1	0.5
[1]ENG-9	1.9	8.3	1.6	6.9	0.7	2.8	<	<	0.3	1.1	0.3	1.1
[1]ENG-10	1.9	8.3	1.6	6.9	0.7	2.8	<	<	0.3	1.1	0.3	1.1
[1]ENG-11	1.9	8.3	1.6	6.9	0.7	2.8	<	<	0.3	1.1	0.3	1.1
[1]ENG-12	1.9	8.3	1.6	6.9	0.7	2.8	<	<	0.3	1.1	0.3	1.1
TK-1	-	-	-	-	1.1	5.0	-	-	-	-	-	-
TK-2	-	-	-	-	<	<	-	-	-	-	-	-
TK-3	-	-	-	-	<	<	-	-	-	-	-	-
TK-4	-	-	-	-	<	<	-	-	-	-	-	-
TK-5	-	-	-	-	<	<	-	-	-	-	-	-
TK-6	-	-	-	-	<	<	-	-	-	-	-	-
HTR-1	2.4	10.6	4.1	17.8	<	1.2	<	<	0.4	1.6	0.4	1.6
HTR-2	1.1	4.7	<	4.0	<	<	<	<	0.1	0.4	0.1	0.4
CONDLOAD-1	-	-	-	-	*	9.2	-	-	-	-	-	-

Unit No.	NO_x (pph.)	[1]NO_x (tpy.)	CO (pph)	CO (tpy)	VOC (pph)	VOC (tpy)	SO_2 (pph)	SO_2 (tpy)	PM_{10} (pph)	PM_{10} (tpy)	$PM_{2.5}$ (pph)	$PM_{2.5}$ (tpy)
OILLOAD-1	-	-	-	-	*	<	-	-	-	-	-	-
FUG-1	-	-	-	-	11.7	51.2	-	-	-	-	-	-
AMINE-1	-	-	-	-	2.8	3.9	-	-	-	-	-	-
TO-1	1.6	6.8	1.3	5.7	<	<	64.5	235.2	-	-	-	-
FL-1 Pilot/Purge	0.0	0.2	0.2	0.7	0.0	0.1	0.0	0.0	6.3	0.9	6.3	0.9
FL-2	<	3.9	4.1	17.8	<	<	<	<	0.0	0.0	0.0	0.0
HR	-	-	-	-	-	-	-	-	3.2	0.1	0.3	0.0

1. The Permittee has an option of installing either Unit ENG-1 or ENG-2 and installing either ENG-5 through ENG-8, or ENG-9 through ENG-12.
2. Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO_2.
3. 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.
4. Compliance with emergency flare emission limits is demonstrated by limiting combustion to pilot and/or purge gas only.

"-" indicates the application represented emissions of this pollutant are not expected.

"<" 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.

"*" indicates hourly emission limits are not appropriate for this operating situation.

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

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

A. The maximum allowable SSM and Malfunction 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 and Malfunction Units, Activities and Emission Limits

Unit No.	Description	NO_x pph	NO_x tpy	CO pph	CO tpy	VOC pph	VOC tpy	SO_2 pph	SO_2 tpy
SSM Venting	MAIN-1 (maintenance activities)[1]	-	-	-	-	*	10.0	-	-

Unit No.	Description	NO_x pph	NO_x tpy	CO pph	CO tpy	VOC pph	VOC tpy	SO_2 pph	SO_2 tpy
SSM Flaring to FL-1	COMP (compressor blowdowns), PLANT-BD (plant blowdowns), & TO-1 (thermal oxidizer downtime)	251.6	26.3	1146.8	120.0	92.9	14.1	57.1	1.3
Malfunction	Malfunction events	-	-	-	-	*	10.0	-	-

1. This authorization does not include VOC combustion emissions.
2. To report excess emissions for sources with no pound per hour and/or ton per year emission limits, see condition B110F.

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

C. SSM Venting Emissions

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

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

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.

D. SSM Flaring Emissions - Flare Unit FL-1

Requirement: Compliance with routine or predictable startup, shutdown, and maintenance (SSM) emission limits in Table 107.A shall be demonstrated by operating the flare in accordance with the requirements of Condition A206.A and A206.B 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, 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, VOC, SO_2, and H_2S emission rates for each hour of each SSM event using these parameters:

(a) the calculated average hourly flow rate/mass rate of all gas combusted by the flare including pilot, purge, and assist gas, if applicable, (Condition A206.B(1));

(b) H_2S content, total sulfur content, VOC content, and heating value (BTU/scf) of the gas (Condition A206.B(4));

(c) the current published emission factors for NOx and CO emission rates; and

(d) VOC and H_2S emission rates calculated using a destruction efficiency of no more than 95%.

(2) Annual Emissions Calculations: The permittee shall calculate the total tpy SSM emission rates as a monthly rolling 12-month total, using the pph emission rates for each hour of the month as follows:

(a) During the first 12 months of this condition taking effect, the permittee shall record the monthly total tons of NOx, CO, VOC, SO_2, and H_2S emissions.

(b) After the first 12 months of this condition taking affect, the permittee shall record the monthly rolling 12-month total tpy NOx, CO, VOC, SO_2, and H_2S emissions.

(3) SSM Events: The permittee shall retain monitoring records including the date, time, and duration of each SSM event, as well as a description of the event including maintenance performed.

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

E. Malfunction Venting Emissions

Requirement: The permittee shall perform a facility inlet gas analysis once every year based on a calendar year and complete the following recordkeeping to demonstrate compliance with malfunction (Malfunction) emission limits in Table 107.A.

Monitoring: The permittee shall monitor all malfunction events that result in VOC emissions including identification of the equipment or activity that is the source of emissions.

Recordkeeping:

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

(2) Records shall also be kept of the inlet gas analysis, the percent VOC of the gas based on the most recent gas analysis, of the volume of total gas vented in MMscf used to calculate the VOC emissions, and whether the emissions resulting from the event will be used toward the permitted malfunction emission limit or whether the event is reported as excess emissions of the pound per hour limits in Table 106.A (or the pound per hour limits in condition B110F, if applicable), under 20.2.7 NMAC.

(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 malfunction 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. The Facility Inlet Flowrate Limit

Requirement: The flowrate of process gas entering the facility shall not exceed 60 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 ± 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 (Units ENG-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12, HTR-1, HTR-2)

Requirement: All combustion emission units shall combust only natural gas containing no more than 0.95 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 (Units ENG-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12, HTR-1, HTR-2)

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.

OIL AND GAS INDUSTRY

A200 Oil and Gas Industry

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

A201 Engines

A. Initial Compliance Testing (Units ENG-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12)

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by performing an initial compliance test.

Monitoring: The permittee shall perform an initial compliance test in accordance with the General Testing Requirements of Section B111 Emission testing is required for NOx and CO.

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

The monitoring exemptions of Section B108 do not apply to this requirement.

For units with g/hp-hr emission limits, the engine load shall be calculated by using the following equation:

$$\text{Load(Hp)} = \frac{\text{Fuel consumption (scfh)} \times \text{Measured fuel heating value (LHV btu/scf)}}{\text{Manufacturer's rated BSFC (btu/bhp-hr) at 100\% load or best efficiency}}$$

Recordkeeping: The permittee shall maintain records in accordance with the applicable Sections in B109, B110, and B111.

Reporting: The permittee shall report in accordance with the applicable Sections in B109, B110, and B111.

B. Periodic Emissions Testing (Units ENG-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12)

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by completing periodic emission tests during the monitoring period.

Monitoring: The permittee shall test using a portable analyzer or EPA Reference Methods subject to the requirements and limitations of Section B108, General Monitoring Requirements. Emission testing is required for NOx and CO and shall be carried out as described below.
Test results that demonstrate compliance with the CO emission limits shall also be considered to demonstrate compliance with the VOC emission limits.

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

$$\text{Load(Hp)} = \frac{\text{Fuel consumption (scfh) x Measured fuel heating value (LHV btu/scf)}}{\text{Manufacturer's rated BSFC (btu/bhp-hr) at 100\% load or best efficiency}}$$

(1) The testing shall be conducted as follows:
(a) Testing frequency shall be once per quarter for units 1-12.

(b) The monitoring period is defined as a calendar quarter for units 1-12.

(2) The first test shall occur within the first monitoring period after completion of the initial compliance test.

(3) All subsequent monitoring shall occur in each succeeding monitoring period. No two monitoring events shall occur closer together in time than 25% of a monitoring period.

(4) The permittee shall follow the General Testing Procedures of Section B111.

(5) Performance testing required by 40 CFR 60, Subpart JJJJ or IIII or 40 CFR 63, Subpart ZZZZ may be used to satisfy these periodic testing requirements if they meet the requirements of this condition and are completed during the specified monitoring period.

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.

C. Catalytic Converter Operation (Units ENG-1, 2, 3, 4, 5, 6, 7, and 8); Non-Selective Catalytic Reduction Operation (Units 9, 10, 11, and 12)

Requirement:

(1) The units ENG-1, 2, 3, 4, 5, 6, 7, and 8 shall be equipped and operated with an oxidation

catalytic converter to control CO, VOC, and HAP emissions. (2) The units Units 9, 10, 11, and 12 shall be equipped and operated with a non-selective catalytic converter to control NOx, CO, and VOC emissions. These units shall also be equipped with an AFR controlling device, or similar device that performs the same function of maintaining an appropriate air-fuel ratio. The permittee shall maintain the units according to manufacturer's or supplier's recommended maintenance, including replacement of oxygen sensor as necessary for oxygen-based controllers.
Monitoring: The unit(s) shall be operated with the catalytic converter, which includes catalyst maintenance periods. During periods of catalyst maintenance, the permittee shall either (1) shut down the engine(s); or (2) replace the catalyst with a functionally equivalent spare to allow the engine to remain in operation.
Recordkeeping: The permittee shall maintain records in accordance with Section B109.
Reporting: The permittee shall report in accordance with Section B110.

D. Air Fuel Ratio Operation (Units ENG-1, 2, 3, 4, 5, 6, 7, and 8)

Requirement: The units shall be equipped and operated with an AFR controlling device, or similar device that performs the same function of maintaining an appropriate air-fuel ratio. The permittee shall demonstrate that the manufacturer's or supplier's recommended maintenance is performed, including replacement of oxygen sensor as necessary for oxygen-based controllers.
Monitoring: The unit(s) shall be operated with the AFR, which includes maintenance periods. During periods of AFR maintenance, the permittee shall either (1) shut down the engine(s); or (2) replace the AFR with a functionally equivalent spare to allow the engine to remain in operation.
Recordkeeping: The permittee shall maintain records in accordance with Section B109, including a record of maintenance performed on AFR controllers and the manufacturer's or suppliers' recommended maintenance schedules for AFR Controllers.
Reporting: The permittee shall report in accordance with Section B110.

E. Notification of Engine Option Installation (Units ENG-1 or 2, and ENG-5, 6, 7, and 8 or ENG-9, 10, 11, and 12

Requirement: The permittee shall install only one engine option from the list of options requested in the application. The permittee shall notify the Permitting Section Chief at the Department in writing of the following: 1. the engine model/option selected (see Table 104.A, footnote 2) and the dates of installation of each unit within 60 days of installation; 2. removal of one option and installation of another option; 3. the resulting total allowable emissions from the facility
Monitoring: None
Recordkeeping: The permittee shall maintain records in accordance with the applicable Sections in B109, B110, and B111.
Reporting: The permittee shall report in accordance with the applicable Sections in B109, B110, and B111.

F. 40 CFR 60, Subpart JJJJ (Units ENG-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12; GEN-1)

Requirement: The units will be subject to 40 CFR 60, Subparts A and JJJJ if the unit is constructed (ordered) and manufactured after the applicability dates in 40 CFR 60.4230 and the permittee shall comply with the notification requirements in Subpart A and the specific requirements of Subpart JJJJ.
Monitoring: The permittee shall comply with all applicable monitoring requirements in 40 CFR 60, Subpart A and Subpart JJJJ, including but not limited to 60.4243.
Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart JJJJ, including but not limited to 60.4245.
Reporting: The permittee shall comply with all applicable reporting requirements in 40 CFR 60, Subpart A and Subpart JJJJ, including but not limited to 60.4245.

G. 40 CFR 63, Subpart ZZZZ (Units ENG- ENG-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12; GEN-1 and 2)

Requirement: The units will be subject to 40 CFR 63, Subparts A and ZZZZ if they meet the applicability criteria in 40 CFR 63.6590. The permittee shall comply with any applicable notification requirements in Subpart A and any specific requirements of Subpart ZZZZ.
Monitoring: The permittee shall comply with all applicable monitoring requirements of 40 CFR 63, Subpart A and Subpart ZZZZ.
Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements of 40 CFR 63, Subpart A and Subpart ZZZZ, including but not limited to 63.6655 and 63.10.
Reporting: The permittee shall comply with all applicable reporting requirements of 40 CFR

63, Subpart A and ZZZZ, including but not limited to 63.6645, 63.6650, 63.9, and 63.10.

H. 40 CFR 60, Subpart IIII (Unit GEN-2)

Requirement: The unit will be subject to 40 CFR 60, Subparts A and IIII and shall comply with the notification requirements in Subpart A and the specific requirements of Subpart IIII.
Monitoring: The permittee shall comply with all applicable monitoring requirements in 40 CFR 60, Subpart A and Subpart IIII, including but not limited to 60.4211.
Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart IIII, including but not limited to 60.4214.
Reporting: The permittee shall comply with all applicable reporting requirements in 40 CFR 60, Subpart A and Subpart IIII, including but not limited to 60.4214.

A202 Glycol Dehydrators - Not required.

A203 Tanks

A. Tank Throughput (Units TK-2, 3, 4, and 5)

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by limiting the monthly rolling 12-month total condensate throughput to the units to 9,198,000 gallons per year (219,000 barrels/year) and routing all tank emissions to the tank flare Unit FL-2 in accordance with Condition A203.C.
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 pre-control breathing and working emissions were calculated using the USEPA Tanks Program Version 4.0.9.d. 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 OILLOAD-1)

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by limiting the total annual condensate loadout volume to 64,344 gallons per year (1532 barrels/year) and controlling emissions during load-out operations in accordance with Condition A203.C.
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.
Reporting: The permittee shall report in accordance with Section B110.

C. Truck Loading - Condensate Loadout (Unit CONDLOAD-1)

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by limiting the total annual condensate loadout volume to 9,198,000 gallons per year (219,000 barrels/year) and controlling emissions during load-out operations in accordance with Condition A203.C.
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.
Reporting: The permittee shall report in accordance with Section B110.

D. Flare (FL-2) Collecting Vapors from Condensate (CONDLOAD), Gunbarrel Tank (TK-1), Tanks (TK-2, 3, 4, and 5), Slop Oil Tank (TK-6), and Oil Loadout control (OILLOAD-1)

Requirement: The permittee shall at all times, including during oil-load operations, operate tank Units TK-1 through TK-6 as a closed loop system that captures and routes all VOC emissions to flare FL-2 and do not vent to the atmosphere.
Monitoring At least once per quarter, the permittee shall inspect all piping from the flare and tanks connecting to the flare for defects that could result in air emissions. 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. In the event that a leak or defect is detected, the permittee shall repair the leak or defect as soon as practicable and in a manner that minimizes VOC and HAP emissions to the atmosphere.
Recordkeeping: The permittee shall record the results of the inspections chronologically, noting any maintenance or repairs that are required.
Reporting: The permittee shall report in accordance with Section B110.

E. 20.2.38 NMAC, Hydrocarbon Storage Facilities (Units TK-2, 3, 4, and 5)

Requirement: The permittee shall comply with 20.2.38.112 NMAC. The permittee shall install a flare to minimize hydrocarbon and hydrogen sulfide loss to the atmosphere and shall not operate the tank without the control device.
Monitoring: The permittee shall monitor the tanks operation.
Recordkeeping: None.
Reporting: The permittee shall report in accordance with Section B110.

A204 Heaters/Boilers

A. Operational Inspections of Heaters (Units HTR-1, HTR-2)

Requirement: (1) Compliance with the allowable emission limits in Table 106.A shall be demonstrated by performing annual inspections to ensure proper operation of the Units. (2) At a minimum, the operational inspections shall meet those recommended by the manufacturer or shall meet the facility specific procedure submitted to the Department. (3) If the permittee is using a facility specific procedure it shall submit an electronic version of the procedure to the Department's Permit Section Manager within 90 days of implementing the procedure. If the plan cannot be submitted within 90 days, the permittee shall obtain written approval to extend the deadline from the Department's Permit Section, either by regular or electronic mail. The permittee shall provide additional information or make changes to the plan as requested by the Department. (4) The permittee shall make changes or improvements to the inspection procedure based on experience with the unit and/or new information provided by the manufacturer. This updated procedure shall be made available to the Department upon request.
Monitoring: (1) Inspections shall be completed at least once per year or at the frequency recommended by the manufacturer. (2) At a minimum, inspections shall include the following: (a) checking indicators to verify that the optimal amount of excess combustion air is introduced into the boiler combustion process such as a blue colored, steady flame; (b) inspections of the unit's components and housing for cracks or worn parts.
Recordkeeping: (1) The permittee shall maintain records of operational inspections, including the indicators used to verify optimal excess combustion air, a description of the indicators, the unit component and housing inspections, and any adjustments needed to ensure optimal operation of the unit. (2) The permittee shall also keep records of the manufacturer's recommended or the permittee's facility specific operational inspection procedure and shall keep records of the percent of excess combustion air required for optimal performance.

(3) The permittee shall maintain records in accordance with Section B109.
Reporting: The permittee shall report in accordance with Section B110.

B. 40 CFR 60, Subpart Dc (Units HTR-1 and HTR-2)

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 and the Section B110 of the permit.

A205 <u>Turbines</u> – Not required.

A206 <u>Flares</u>

A. Visible Emissions for Flares and Thermal Oxidizer Flames (20.2.61 NMAC) (Units FL-1, FL-2, and TO-1)

Requirement: Compliance with the allowable emission limits in Sections A106 and A107 shall be demonstrated by the flares being equipped with a system to ensure that it is are operated with a flame present at all times and operated with no visible emissions. The flares and thermal oxidizer are 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. To demonstrate compliance with the VOC and H_2S emission limits in Tables 106.A and 107.A, the flare (Unit FL-1) shall be equipped with a system to ensure that it is operated with a flame present at all times and operated with no visible emissions. The thermal oxidizer (Unit TO-1) shall be equipped with a pilot thermocouple and an alarm and notification system indicating when the Thermal Oxidizer fails to light, to ensure that it is operated with a flame present any time that vapors are routed to the unit.
Monitoring: **(1) Thermal Oxidizer and Flare Pilot Flame:** The permittee shall continuously monitor the presence of a thermal oxidizer and flare pilot flame using a thermocouple or any equivalent device approved by the

Departmentand shall be equipped with a continuous recorder and alarm or equivalent, to detect the presence of a flame.

(2) Visible Emissions:

Annually, or whenever visible emissions are observed, 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 on the process flare. 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.

At least once per year during a blow down 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 blowdown events that occur for less than 30 minutes, visible emissions shall not occur for more the 15% during the duration of the blow down event.

If the flare is located at an unmanned site, used only for emergencies, and where there are no scheduled blowdown-maintenance events to observe flare combustion, the permittee shall at a minimum conduct the visible emissions observation in accordance with the requirements of EPA Method 22 on the pilot flame.

Recordkeeping:

(1) Thermal Oxidizer and Flare Pilot Flame:

The permittee shall record all instances of alarm activation, including the date 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, the permittee shall record the information on the form referenced in EPA Method 22, Section 11.2.

For blowdown flares when a flaring event may occur without someone present:

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 blowdown event.

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

B. Gas Flow Monitoring and Gas Analysis for Flares and Thermal Oxidizer Operation (Units FL-1, FL-2, and TO-1)

Requirement: Compliance with the allowable emission limits in Tables 106.A and 107.A shall be demonstrated by completing the monitoring, recordkeeping, and reporting specified below.

Monitoring:

(1) Flow Monitoring:

a. Each flare shall be equipped with a gas flow or a mass flow meter, equipped with a chart recorder or data logger (electronic storage), to monitor gas flow/mass flow and record the total standard cubic feet (scf) of gas sent to Flare Units FL-1 and FL-2, and TO-1.

b. The permittee:

(i) May use manufacturer's specifications to determine pilot, purge, and assist gas flow rates.

(ii) May use the manufacturer's specification or modeling estimations using Promax, E&P Tanks, or another approved method, to determine process gas flow rates.

(2) Calibration: The flow meter(s), mass 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) Hourly Flow Rate: Gas flow or mass flow rates shall be logged during, or calculated for, each hour and each month that the flare/TO is in operation.

(4) Gas Analysis: The permittee shall measure the H_2S content, the total sulfur content, the VOC content, and the heating value (Btu/scf) of the gas sent to the flare/TO for combustion or to the amine unit. H_2S shall be measured at least quarterly using a stain tube of the appropriate size range or an inline H_2S monitor; or measured annually with an extended gas analysis. The total sulfur content, VOC content, and heating value (Btu/scf) of the natural gas sent to the flare/TO shall be measured at least once annually with an extended gas analysis.

Recordkeeping: The following records shall be kept:

(1) Flow Monitoring & (2) Calibration: Records of flowmeter or mass meter, 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.

(2) Hourly Flow Rate: Records of the calculated average hourly flowmeter/mass meter and flow/mass totalizer measurements of process and assist gas sent to the flare/TO or the amine unit in scf/hr.

(3) Gas Analysis: Sample documentation as received from the laboratory including H_2S content, the total sulfur content, the VOC content, and the heating value (Btu/scf) and analysis method utilized.

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

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

C. Control Efficiency for Thermal Oxidizer (Unit TO-1)

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 and maintaining a burning temperature that achieves a destruction efficiency at or above 98% for VOCs and H2S, and monitoring unit downtime or malfunction. Temperature is used as the indicator for the estimated destruction efficiency.

Monitoring: The permittee shall determine a combustion temperature that achieves the required destruction efficiency from periodic emissions testing performed in accordance with A206.G and monitor the combustion temperature of the Thermal Oxidizer continuously and record the temperature once per 24-hour period. Compliant combustion temperature is defined as within +/- 5% of the temperature during the emissions test.

Recordkeeping: The permittee shall maintain records including the date and time of each temperature reading, 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.

D. Emissions Calculation for Thermal Oxidizer (Unit TO-1)

Requirement: Compliance with the thermal oxidizer allowable emission limits in Table 106.A shall be demonstrated by operating the thermal oxidizer in accordance with the requirements, monitoring, and recordkeeping of Condition A206.D and completing emissions calculations as specified in this condition.

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

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 pounds per hour (pph) NOx, CO, VOC, SO_2, and H_2S emission rates 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, (Condition A206.D(1));

(b) gas analysis including H_2S content, total sulfur content, VOC content, and heating value (BTU/scf) of the gas (Condition A206.D(2));

(c) the TNRCC RG-109 (high Btu; other) emission factors for NOx and AP-42 Tables 13.5-1 and 13.5-2emission factors for NOx and CO emission rates; and

(d) VOC and H_2S emission rates calculated using a destruction efficiency of 98% based on the manufacturers guarantee.

(2) Annual Emissions Calculations: The permittee shall calculate the total ton per year (tpy) emission rates as a monthly rolling 12-month total, using the totaled pph emission rates for each hour of the month:

(a) During the first 12 months of this condition taking effect, the permittee shall record the total tons of NOx, CO, VOC, SO_2, and H_2S emissions.

(b) After the first 12 months of this condition taking affect, the permittee shall record the monthly rolling 12-month total tpy NOx, CO, VOC, SO_2, and H_2S emissions.

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

E. Initial and Periodic Emissions Testing for Thermal Oxidizer (Unit TO-1)

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by emission tests for NOx and CO and calculating the destruction efficiency for VOCs and H2S of the thermal oxidizer during the monitoring period.

Monitoring:

NOx and CO: The permittee shall complete an initial compliance test for NOx and CO using a portable analyzer or EPA Reference Method Test subject to the requirements and limitations of Section B111. The initial compliance test shall take place within 180 days of permit issuance.

VOC and H_2S Destruction Efficiency: The permittee shall conduct periodic emissions tests using EPA Reference Method 25a or Method 18 subject to the requirements and limitations of Section B108, General Monitoring Requirements. Emission testing is required for un-speciated VOCs pre-control and post-TO (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 thermal oxidizer at the operating combustion temperature. Compliant destruction efficiency is defined as a percentage equal to or greater than 98%. Compliance with the destruction efficiency of 98% for VOCs shall also demonstrate compliance for H_2S.

(1) The Periodic emissions tests shall be conducted as follows:
(a) The first test shall take place within 180 days of permit issuance and thereafter;
(b) Testing frequency shall be once per year.
(c) 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. Emissions Calculation for Flares (Units FL-1, FL-2)

Requirement: Compliance with the flare allowable emission limits in Table 106.A shall be demonstrated by operating the flare in accordance with the requirements, monitoring, and

recordkeeping of Condition A206.D and completing emissions calculations as specified in this condition.

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

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 pounds per hour (pph) NOx, CO, VOC, SO_2, and H_2S emission rates using these parameters:

(a) the calculated average hourly flow rate/mass rate of all gas combusted by the flare including pilot, purge, and assist gas, if applicable, (Condition A206.D(1));

(b) gas analysis including H_2S content, total sulfur content, VOC content, and heating value (BTU/scf) of the gas (Condition A206.D(4));

(c) the current published emission factors for NOx and CO emission rates; and

(d) VOC and H_2S emission rates calculated using a destruction efficiency of no more than 98%.

(2) Annual Emissions Calculations: The permittee shall calculate the total ton per year (tpy) emission rates as a monthly rolling 12-month total, using the totaled pph emission rates for each hour of the month:

(a) During the first 12 months of this condition taking effect, the permittee shall record the total tons of NOx, CO, VOC, SO_2, and H_2S emissions.

(b) After the first 12 months of this condition taking affect, the permittee shall record the monthly rolling 12-month total tpy NOx, CO, VOC, SO_2, and H_2S emissions.

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

A207 Sulfur Recovery Unit – Not required

A208 Amine Unit

A. Extended Gas Analysis (AMINE-1)

Requirement:

A. To demonstrate compliance with the allowable H2S emission limits in Table 106.A, the permittee shall conduct the following analyses:
   1. An annual extended gas analysis on a representative sample upstream of the sweetening unit.
   2. Verification sampling and analysis will be conducted biannually (every two years) on regenerator still vent emissions.

B. Every two years, the extended gas analysis will include sampling and analysis for H2S.

The value presented will be a numerical value, or if less than the laboratory method detectable limit, the minimum detection limit will be reported.
Monitoring: The permittee shall conduct an annual extended gas analysis of the inlet gas. 1. Confirmation testing on amine emission points (e.g. flash tank, regenerator, still vent) will be performed biannually (every two years).
Recordkeeping: Records shall be kept of the following: 1. Gas analysis H2S, CO2, VOC content of the inlet gas. 2. An annual calculation of the average hourly and total annual emissions for [H2S, VOC] based on the most recent annual extended gas analysis will be performed using, but not limited to, AmineCalc, HYSYS, or ProMax. 3. All parameters that were used as inputs to the model or calculations [i.e.; AmineCalc, HYSYS, or ProMax]. 4. Verification sampling and analysis on [flash tank] and/or [regenerator still vent] emissions.
Reporting: The permittee shall report in accordance with Section B110.

B. Amine pump circulation rate (AMINE-1)

Requirement: To demonstrate compliance with the allowable VOC emission limits in Table 106.A, the amine pump circulation rate for the unit shall not exceed 27,000 gallons per hour (450 gallons per minute).
Monitoring: Monitoring: The permittee shall monitor the circulation rate (gph) monthly.
Recordkeeping: Recordkeeping: The permittee shall keep records in accordance with Section B109 and of the following: 1. Pump flow rate in gph. 2. Basis for determination of flowrate.
Reporting: The permittee shall report in accordance with Section B110.

C. Sweetening Unit (AMINE-1) with Control Devices TO-1 (Thermal Oxidizer) and FL-1 (Flare)

Requirement: To demonstrate compliance with the allowable emission limits in Table 106.A, the amine sweetening unit shall have a closed system with still vent and flash tank emissions routed at all times to TO-1 except for TO-1 downtime. During TO-1 downtime, emissions shall be routed to FL-1. The closed vent system shall be designed and operated so that there are no leaks to the atmosphere. At no time shall any emissions be emitted directly to the atmosphere.
Monitoring: The permittee shall inspect the amine treatment unit and the control equipment semi-annually to ensure it is operating as initially designed or in accordance with the manufacturer's recommended procedures.

The permittee shall inspect the pipe routed from the AMINE-1 still vent and flash tank to TO-2 and to FL-1 semi-annually to ensure that there is no degradation of welds or other deficiencies.
Recordkeeping: The permittee shall record the name of the person conducting the inspection and the results of all equipment and control device inspections chronologically, noting any maintenance or repairs needed to bring the amine treatment unit into compliance. The permittee shall maintain a copy of the manufacturer's maintenance recommendations.
Reporting: The permittee shall report in accordance with Section B110.

A209 Fugitives

A. 40 CFR 60, Subpart OOOOa (for all applicable process unit equipment, including Units FUG 1-2, COMP (Compressors for Units 1-12), and AMINE-1)

Requirement: Equipment in VOC or in wet gas service (as defined in 40 CFR §60.5430a) within process units FUG-1, COMP (Units 1-12), and AMINE-1 are subject to the GHG and VOC equipment leak standards at 40 CFR §60.5400a 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 §60.5400a except as provided in §60.5401a.
Recordkeeping: The permittee shall comply with the recordkeeping requirements specified at 40 CFR §§60.5400a(e) and 60.486a except as provided in §§60.5401a and 60.5421a.
Reporting: The permittee shall comply with the reporting requirements specified at 40 CFR §§60.5400a(e) and 60.487a except as provided in §§60.5401a and 60.5422a.

PART B GENERAL CONDITIONS (Attached)

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