Air Quality Bureau
TITLE V OPERATING PERMIT
XX/XX/2023
Issued under 20.2.70 NMAC

Certified Mail No:
Return Receipt Requested

Operating Permit No:	P288-M2
Facility Name:	Frac Cat Compressor Station
Facility Owner/Operator:	Targa Northern Delaware, LLC
Mailing Address:	811 Louisiana, Suite 2100 Houston, Texas 77002
TEMPO/IDEA ID No:	29403 - PRT20230001
AIRS No:	350250553
Permitting Action:	Permit Reopening
Source Classification:	Title V Major
Facility Location:	624060m E by 3563430m N; Zone 13; Datum WGS84
County:	Lea
Air Quality Bureau Contact:	Julia Kuhn
Main AQB Phone No.	(505) 476-4300
TV Permit Expiration Date:	April 16, 2027
TV Renewal Application Due:	April 16, 2026

Liz Bisbey-Kuehn
Bureau Chief
Air Quality Bureau

Date

Template version: 06/28/2021

TABLE OF CONTENTS

PART A FACILITY SPECIFIC REQUIREMENTS

A100 Introduction

A. Not Applicable.

A101 Permit Duration (expiration)

A. This permit, P288M2, supersedes permit P288, and will expire on April 16, 2027. Application for renewal of this permit is due twelve (12) months prior to the date of expiration. (20.2.70.300.B.2 and 302.B NMAC)

B. If a timely and complete application for a permit renewal is submitted, consistent with 20.2.70.300 NMAC, but the Department has failed to issue or disapprove the renewal permit before the end of the term of the previous permit, then the permit shall not expire and all the terms and conditions of the permit shall remain in effect until the renewal permit has been issued or disapproved. (20.2.70.400.D NMAC)

A102 Facility: Description

A. The function of the facility is to dehydrate and compress natural gas for transport.

B. This facility is located approximately 24.3 miles southeast of Loving, New Mexico in Lea County. (20.2.70.302.A(7) NMAC).

C. Pursuant to 20.2.70.405.A(4) NMAC, the New Mexico Environment Department (NMED) reopened the initial TV Operating Permit P288 for Frac Cat Compressor Station issued April 16, 2022, as the result of an EPA Order regarding Petition Number VI-2022-5.

D. Tables 102.A and Table 102.B show the potential to emit (PTE) from this facility for information only. This is not an enforceable condition and excludes insignificant or trivial activities.

Table 102.A: Total Potential to Emit (PTE) from Entire Facility

Pollutant	Emissions (tons per year)
Nitrogen Oxides (NOx)	118.9
Carbon Monoxide (CO)	114.3
Volatile Organic Compounds (VOC) [1]	72.3
Sulfur Dioxide (SO_2)	15.3
Particulate Matter (PM)[2]	8.1
Particulate Matter 10 microns or less (PM_{10})	8.1
Particulate Matter 2.5 microns or less ($PM_{2.5}$)	8.1
Greenhouse Gas (GHG) as CO_2e	190,742

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 Deterioration and 20.2.70 NMAC, Title V. No ambient air quality standards apply to PM.

Table 102.B: Total Potential to Emit (PTE) for *Hazardous Air Pollutants (HAPs) that exceed 1.0 ton per year

Pollutant	Emissions (tons per year)
Acetaldehyde	1.0
Acrolein	3.4
Formaldehyde	13.5
Toluene	1.3
Total HAP	25.8

* 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 and Non-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.
NSR Permit No: 4221M6 (Per 20.2.72 NMAC)	X	Entire Facility or Units
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
20.2.61 NMAC Smoke and Visible Emissions	X	17-0533, 17-0534, 17-0530, 17-0529, 17-0590, 13-0104, 17-0585, 18-1279, 1, 2, 3, 4, 5, RBL-1, RBL-2, RBL-3, Flare-1
20.2.70 NMAC Operating Permits	X	Entire Facility
20.2.71 NMAC Operating Permit Emission Fees	X	Entire Facility
20.2.72 NMAC Construction Permit	X	Entire Facility
20.2.73 NMAC Notice of Intent and Emissions Inventory Requirements	X	Entire Facility
20.2.77 NMAC New Source Performance Standards	X	Units subject to 40 CFR 60
20.2.82 NMAC Maximum Achievable Control Technology Standards for Source Categories of HAPs	X	Units subject to 40 CFR 63

Table 103.A: Applicable Requirements

Applicable Requirements	Federally Enforceable	Unit No.
40 CFR 60, Subpart A, General Provisions	X	17-0533, 17-0534, 17-0530, 17-0529, 17-0590, 13-0104, 17-0585, 18-1279, 1-5, FUG, and RBL-3
40 CFR 60, Subpart Dc	X	RBL-3
40 CFR 60, Subpart OOOO	X	17-0533, 17-0534, 17-0530, Potentially 1-5
40 CFR 60, Subpart OOOOa	X	17-0529, 17-0590, 13-0104, 17-0585, 18-1279, FUG, Potentially, 1-5
40 CFR 60, Subpart JJJJ	X	17-0533, 17-0534, 17-0530,17-0529, 17-0590, 13-0104, 17-0585, 18-1279, Potentially, 1-5
40 CFR 63, Subpart A, General Provisions	X	17-0533, 17-0534, 17-0530, 17-0529, 17-0590, 13-0104, 17-0585, 18-1279, 1-5, Dehy-1, Dehy-2, RBL-1, RBL-2, and RBL-3
40 CFR 63, Subpart HH	X	Dehy-1, Dehy-2
40 CFR 63, Subpart ZZZZ	X	17-0533, 17-0534, 17-0530, 17-0529, 17-0590, 13-0104, 17-0585, 18-1279, 1-5
40 CFR 63, Subpart DDDDD	X	RBL-1, RBL-2, RBL-3
40 CFR 64 Compliance Assurance Monitoring	X	Amine-1

A104 Facility: Regulated Sources

A. Table 104.A lists the emission units authorized for this facility. Emission units identified as insignificant or trivial activities (as defined in 20.2.70.7 NMAC) and/or equipment not regulated pursuant to the Act are not included.

Table 104.A: Regulated Sources List

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Capacity/ Permitted Capacity
17-0533	Compressor Engine 4 SLB RICE	Caterpillar	G3520B	TCPC00122	25-JUN-13	10-DEC-08	1725 hp / 1725 hp
17-0534	Compressor Engine 4 SLB RICE	Caterpillar	G3516	JEF03405-N6W	07-MAY-14	15-JUN-12	1380 hp / 1380 hp

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Capacity/ Permitted Capacity
17-0530	Compressor Engine 4 SLB RICE	Caterpillar	G3516 LE Plus	WPW-02285	20-JUN-14	24-JUN-08	1340 hp / 1340 hp
17-0529	Compressor Engine 4 SLB RICE	Caterpillar	G3516	JEF03044-N6W	14-JUL-17	20-SEP-10	1380 hp / 1380 hp
17-0590	Compressor Engine 4 SLB RICE	Caterpillar	G3516	N6E00254-N6W	15-MAY-17	20-NOV-14	1380 hp / 1380 hp
13-0104	Compressor Engine 4 SLB RICE	Caterpillar	G3516	JEF03400-N6W	12-MAY-17	01-APR-11	1380 hp / 1380 hp
17-0585	Compressor Engine 4 SLB RICE	Caterpillar	G3606	4ZS02199	12-MAY-17	01-SEP-15	1775 hp / 1775 hp
18-1279	Compressor Engine 4 SLB RICE	Caterpillar	G3516	N6W00784	19-OCT-18	27-AUG-18	1380 hp / 1380 hp
1	Compressor Engine 4 SLB RICE	Caterpillar	G3516	TBD	TBD	TBD	1380 hp / 1380 hp
2	Compressor Engine 4 SLB RICE	Caterpillar	G3516	TBD	TBD	TBD	1380 hp / 1380 hp
3	Compressor Engine 4 SLB RICE	Caterpillar	G3606	TBD	TBD	TBD	1875 hp / 1875 hp
4	Compressor Engine 4 SLB RICE	Caterpillar	G3606	TBD	TBD	TBD	1875 hp / 1875 hp
5	Compressor Engine 4 SLB RICE	Caterpillar	G3608	TBD	TBD	TBD	2500 hp / 2500 hp
Dehy-1	Glycol Dehy Still Vent/Flash Tank	Exterran	NA	NA	NA	01-JAN-10	35 MM SCF/d / 35 MM SCF/d
Dehy-2	Glycol Dehy Still Vent/Flash Tank	TBD	TBD	TBD	TBD	TBD	35 MM SCF/d / 35 MM SCF/d
AMINE-1	Amine sweetening unit	TBD	TBD	TBD	08-JAN-18		45 MM SCF/d / 45 MM SCF/d

Unit No.	Unit Type	Make	Model No.	Serial No.	Yr of Construction	Yr of Manufacture	Operating Rate Capacity/ Permitted Capacity
Flare-1	Process Flare	TBD	TBD	TBD	TBD	TBD	28.8 MM SCFD / 28.8 MM SCFD
RBL-1	Glycol Dehy Reboiler Burner	Exterran	NA	9447	NA	01-JAN-10	0.75 MM BTU/h / 0.75 MM BTU/h
RBL-2	Glycol Dehy Reboiler Burner	TBD	NA	TBD	TBD	TBD	1.25 MM BTU/h / 1.25 MM BTU/h
RBL-3	Amine Unit Reboiler	TBD	NA	TBD	TBD	TBD	21 MM BTU/h / 21 MM BTU/h
T1	Condensate/Oily Wastewater	NA	NA	TBD	TBD	TBD	300 bbl / 251,348 gal/yr
T2	Condensate/Oily Wastewater	NA	NA	4611	01-JAN-10	01-JAN-10	300 bbl / 251,348 gal/yr
T3	Condensate/Oily Wastewater	NA	NA	4601	01-OCT-09	01-OCT-09	300 bbl / 251,348 gal/yr
T4	Condensate/Oily Wastewater	NA	NA	TBD	TBD	TBD	300 bbl / 251,348 gal/yr
FUG	Fugitive Emissions	NA	NA	NA	NA	NA	NA
SSM/M Compressor Blowdown Venting	Startup, Shutdown, Maintenance, and Malfunction Compressor Blowdown Venting	NA	NA	NA	NA	NA	NA

1. 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 No.[1]
17-0533, 17-0534, 17-0530, 17-0529, 17-0590, 13-0104, 17-0585, 18-1279, 1, 2, 3, 4, 5	AFR (integral), Oxidative Catalyst	CO, VOC, HCHO	17-0533, 17-0534, 17-0530, 17-0529, 17-0590, 13-0104, 17-0585, 18-1279, 1, 2, 3, 4, 5

Table 105.A: Control Equipment List:

Control Equipment Unit No.	Control Description	Pollutant being controlled	Control for Unit No.[1]
Dehy-1, RBL-1 Dehy-2, RBL-2	BTEX Condenser, Reboiler,	VOC	Dehy-1, Dehy-2,
Flare-1	Assist Gas Process Flare	VOC, HAP, H2S	Amine-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 60, Subparts A, Dc, OOOO, OOOOa, and JJJJ; 40 CFR 63, Subparts A, HH, ZZZZ, and DDDDD; 40 CFR 64; Paragraphs 1, 7, and 8 of 20.2.70.302.A NMAC; and NSR Permit 4221M6.

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 pph	PM tpy	PM_{10} pph	PM_{10} tpy	$PM_{2.5}$ pph	$PM_{2.5}$ tpy
17-0533	1.9	8.3	0.9	3.9	1.0	4.5	<	<	<	<	<	<	<	<
17-0534	1.5	6.7	0.9	3.9	0.8	3.5	<	<	<	<	<	<	<	<
17-0530	1.5	6.5	1.2	5.1	0.7	3.1	<	<	<	<	<	<	<	<
17-0529	1.5	6.7	0.9	3.9	0.8	3.5	<	<	<	<	<	<	<	<
17-0590	1.5	6.7	0.9	3.9	0.8	3.5	<	<	<	<	<	<	<	<
13-0104	1.5	6.7	0.9	3.9	0.8	3.5	<	<	<	<	<	<	<	<
17-0585	2.0	8.6	2.0	8.6	0.7	3.2	<	<	<	<	<	<	<	<
18-1279	1.5	6.7	0.9	3.9	0.8	3.5	<	<	<	<	<	<	<	<
1	1.5	6.7	0.9	3.9	0.8	3.5	<	<	<	<	<	<	<	<
2	1.5	6.7	0.9	3.9	0.8	3.5	<	<	<	<	<	<	<	<
3	2.1	9.1	1.4	6.0	0.7	3.2	<	<	<	<	<	<	<	<
4	2.1	9.1	1.4	6.0	0.7	3.2	<	<	<	<	<	<	<	<
5	2.8	12.1	2.2	9.7	0.8	3.3	0.3	1.1	<	<	<	<	<	<
Dehy-1	-	-	-	-	0.0	0.0	-	-	-	-	-	-	-	-
Dehy-2	-	-	-	-	0.0	0.0	-	-	-	-	-	-	-	-
Amine-1	-	-	-	-	0.0	0.0	-	-	-	-	-	-	-	-
Flare-1	2.0	8.6	9.0	39.4	0.8	3.3	1.1	4.8	-	-	-	-	-	-
RBL-1	<	<	<	<	<	1.9	<	<	<	<	<	<	<	<
RBL-2	<	<	<	<	<	1.9	<	<	<	<	<	<	<	<
RBL-3	2.1	9.0	1.7	7.6	<	<	<	<	<	<	<	<	<	<

Unit No.	NO_x pph	[1]NO_x tpy	CO pph	CO tpy	VOC pph	VOC tpy	SO_2 pph	SO_2 tpy	PM pph	PM tpy	PM_{10} pph	PM_{10} tpy	$PM_{2.5}$ pph	$PM_{2.5}$ tpy
T-1	-	-	-	-	<	<	-	-	-	-	-	-	-	-
T-2	-	-	-	-	<	<	-	-	-	-	-	-	-	-
T-3	-	-	-	-	<	<	-	-	-	-	-	-	-	-
T-4	-	-	-	-	<	<	-	-	-	-	-	-	-	-
FUG	-	-	-	-	1.9	8.5	-	-	-	-	-	-	-	-

1 Nitrogen dioxide emissions include all oxides of nitrogen expressed as NO_2.
2 Title V annual fee assessments are based on the sum of allowable tons per year emission limits in Sections A106 and A107.
3 Compliance with emergency flare emission limits is demonstrated by limiting combustion to pilot and/or purge gas only.
"-" indicates the application represented emissions are not expected for this pollutant.
"<" 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. Although modeled at the calculated value, the Department has determined compliance demonstrations of these very small, calculated values are either technically or practically infeasible. For limits expressed as "<", actual emissions in excess of 1.0 pph and 1.0 tpy are excess emissions to be reported per General Condition B110.E.
"*" indicates hourly emission limits are not appropriate for this operating situation.
4 To report excess emissions for sources with no pound per hour and/or ton per year emission limits, see condition B110.E.

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	VOC (tpy)
SSM/M Compressor Blowdown Venting for Unit Numbers 17-0533, 17-0534, 17-0530, 17-0529, 17-0590, 13-0104, 17-0585, 18-1279, 1, 2, 3, 4, 5	[1]This emission limit includes SSM/M emissions from compressor blowdown venting from 4 permitted compressor model types. The permittee must demonstrate compliance with this limit in accordance with Condition A107.C.	10

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 B110.E.

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

C. Method for Determining Compliance with the Startup, Shutdown, Maintenance, and Malfunction Compressor Blowdown Venting Emission Limit in Table 107.A

Requirement: The permittee shall comply with this condition to determine compliance with the allowable emission limit in Table 107.A. The allowable emission limit in Table 107.A was based upon the applicant's worst-case scenario and was calculated using the maximum volume of gas that can be vented from each permitted compressor model (Maximum Volume of Gas). The permittee shall calculate the emissions from each compressor blowdown event using the calculation provided below.

(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 compressor blowdown 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 compressor blowdown event using the following calculations for each compressor model type.

(d) Each calendar month, the permittee shall calculate the total monthly emissions from all compressor blowdown events for each compressor model type.

(e) For each compressor blowdown event, the permittee shall calculate the emissions resulting from the event. The calculation shall be based on the Maximum Volume of Gas released during the compressor blowdown event multiplied by the maximum VOC content of the vented gas, and shall be performed using the example calculations below:

For Caterpillar Model 3520B: [3,185.8 scf/event] x [22.6 lb/lb-mol] x [wt %VOC] / [397.5 scf/lb-mol] x [2,000 lb/ton] = VOC emissions per event (tpy)

For Caterpillar Model 3516 or 3516LE: [3,185.8 scf/event] x [22.6 lb/lb-mol] x [wt %VOC] / [397.5 scf/lb-mol] x [2,000 lb/ton] = VOC emissions per event (tpy)

For Caterpillar Model 3606: [4,285.9 scf/event] x [22.6 lb/lb-mol] x [wt %VOC] / [397.5 scf/lb-mol] x [2,000 lb/ton] = VOC emissions per event (tpy)

For Caterpillar Model 3608: [6,184.9 scf/event] x [22.6 lb/lb-mol] x [wt %VOC] / [397.5 scf/lb-mol] x [2,000 lb/ton] = VOC emissions per event (tpy)

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

(a) All emissions due to routine or predictable startup, shutdown, and/or maintenance (SSM) must be included and shall not exceed the 10 tpy SSM/M emission limit in this permit. For emissions due to malfunctions, the permittee has the option to report these as excess emissions of the emission limit Table 107.A in accordance with 20.2.7 NMAC, or include the emissions under the 10 tpy limit.

(b) Once emissions from a malfunction event are submitted in the excess emissions final report (due no later than ten days after the end of the excess emissions event) per 20.2.7.110.A(2) NMAC, the event is considered an excess emission and cannot be applied toward the 10 tpy SSM/M limit in this permit.

(3) **Emissions Exceeding the Permit Limit**

If the monthly rolling 12-month total of SSM/M exceeds the 10 tpy 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 not be included under the 10 tpy SSM/M emission limit. These emissions 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/M other than compressor blowdowns 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 compressor blowdown event and shall record the specific information as required in the condition below.

(3) The permittee shall monitor and record the specific compressor causing the blowdown 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 compressor blowdown events during the first 12 months and, thereafter the monthly rolling 12-month total VOC emissions from all compressor blowdown 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 whether emissions are included under the 10 tpy emission limit for SSM/M or if the event is included in a final excess emissions report per 20.2.7.110.A(2) NMAC.

(6) The permittee shall monitor in accordance with Condition B108 of this permit.

Recordkeeping:

(1) **Recording for Compliance Determination**

(a) For each compressor blowdown event, the permittee shall keep records of:

(i) the extended gas analysis documenting the %VOC,

(ii) the volumetric total gas vented in scf corresponding to each compressor,

(iii) the emission calculation, which shall be based on the calculation methodology required above.

(b) For each compressor blowdown event, the permittee shall identify the compressor and shall identify the cause of the event that is the source of emissions.

(c) The permittee shall record each compressor blowdown event and the total number of events each year for each compressor.

(d) Each month, the permittee shall record the cumulative total VOC emissions from compressor blowdown events during the first 12 months and, thereafter of the monthly rolling 12-month total VOC emissions from blowdown 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) **Emissions included Under Permit Limit or Reported as Excess Emissions**

The permittee shall record whether emissions are included under the 10 tpy permit limit for compressor blowdown events or if the event is included in a final excess emissions report per 20.2.7.110.A(2) NMAC.

(3) **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.

A108 Facility: Hours of Operation

A. This facility is authorized for continuous operation. Monitoring, recordkeeping, and reporting are not required to demonstrate compliance with continuous hours of operation.

A109 Facility: Reporting Schedules (20.2.70.302.E NMAC)

A. A Semi-Annual Report of monitoring activities is due within 45 days following the end of every 6-month reporting period. The six month reporting periods start on April 1st and October 1st of each year.

B. The Annual Compliance Certification Report is due within 30 days of the end of every 12-month reporting period. The 12-month reporting period starts on April 1st of each year.

A110 Facility: Fuel and Fuel Sulfur Requirements

A. Fuel and Fuel Sulfur Requirements

Requirement: All combustion emission units shall combust only natural gas containing no more than 5.0 grains of total sulfur per 100 dry standard cubic feet.

Monitoring: None. 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 Requirements (Units 17-0533, 17-0534, 17-0530, 17-0529, 17-0590, 13-0104, 17-0585, 18-1279, 1, 2, 3, 4, 5, RBL-1, RBL-2, RBL-3, and Flare-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

A. Maintenance and Repair Monitoring (Units 17-0533, 17-0534, 17-0530, 17-0529, 17-0590, 13-0104, 17-0585, 18-1279, 1, 2, 3, 4, and 5)

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by properly maintaining and repairing the units. (NSR 4221M6, Condition A201A).

Monitoring: Maintenance and repair shall meet the minimum manufacturer's or permittee's recommended maintenance schedule. Activities that involve maintenance, adjustment, replacement, or repair of functional components with the potential to affect the operation of an emission unit shall be documented as they occur for the following events:

(1) Routine maintenance that takes a unit out of service for more than two hours during any twenty-four hour period.

(2) Unscheduled repairs that require a unit to be taken out of service for more than two hours in any twenty-four hour period.

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

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

B. Periodic Emissions Testing (Units Periodic Emissions Testing (Units 17-0533, 17-0534, 17-0530, 17-0529, 17-0590, 13-0104, 17-0585, 18-1279, 1, 2, 3, 4, and 5)

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by completing periodic emission tests during the monitoring period. (NSR 4221M6, Condition A201B).

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.
   b. The monitoring period is defined as a calendar quarter.

(2) For Units 1, 2, 3, 4 & 5, the first test shall occur within the first monitoring period occurring after permit issuance. For all units, the tests shall continue based on the existing testing schedule.
(3) All subsequent monitoring shall occur in each succeeding monitoring period. No two monitoring events shall occur closer together in time than 25% of a monitoring period.
(4) The permittee shall follow the General Testing Procedures of Section B111.
(5) Performance testing required by 40 CFR 60, Subpart JJJJ or 40 CFR 63, Subpart ZZZZ may be used to satisfy these periodic testing requirements if they meet the requirements of this condition and are completed during the specified monitoring period.

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. Initial Compliance Test (Units 1, 2, 3, 4, and 5)

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by performing an initial compliance test. (NSR 4221M6, Condition A201C).

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:

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

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.

D. Catalytic Converter Operation (Units 17-0533, 17-0534, 17-0530, 17-0529, 17-0590, 13-0104, 17-0585, 18-1279, 1, 2, 3, 4, and 5)

Requirement:
The units shall be equipped and operated with an oxidation catalytic converter to control CO, VOC, and HAP emissions.

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. (NSR 4221M6, Condition A201D).

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.

E. 40 CFR 60, Subpart JJJJ (Units 17-0533, 17-0534, 17-0530, 17-0529, 17-0590, 13-0104, 17-0585, 18-1279, potentially 1, 2, 3, 4, and 5)

Requirement: The units are subject to 40 CFR 60, Subparts A and JJJJ and shall comply with the notification requirements in Subpart A and the specific requirements of Subpart JJJJ. (NSR 4221M6, Condition A201E).

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.

F. 40 CFR 63, Subpart ZZZZ (Units 17-0533, 17-0534, 17-0530, 17-0529, 17-0590, 13-0104, 17-0585, 18-1279, 1, 2, 3, 4, and 5)

Requirement: The units are subject to 40 CFR 63, Subpart ZZZZ and the permittee shall comply with all applicable requirements of Subpart A and Subpart ZZZZ. (NSR 4221M6, Condition A201F).

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.

A202 Glycol Dehydrators

A. Extended Gas Analysis, Control Device Requirement, and GRI-GLYCalc Calculation (Units Dehy-1 & Dehy-2)

Requirement: To demonstrate compliance with the allowable VOC emission limits in Table 106.A: (1) Each dehydrator shall be equipped with a BTEX condenser; and (2) The permittee shall conduct an annual extended gas analysis on the dehydrator inlet gas. (NSR 4221M6, Condition A202A).
Monitoring: The permittee shall conduct an annual 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 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 GRI-GLYcalc model or equivalent method. The permittee shall keep a record of the results, noting the VOC and HAP emission rates for the dehydrator obtained from estimates using GRI-GLYcalc.
Reporting: The permittee shall report in accordance with Section B110.

B. Glycol pump circulation rate (Units Dehy-1, Dehy-2)

Requirement: Compliance with the allowable VOC emission limits in Table 106.A shall be demonstrated by monitoring the rich glycol pump circulation rate for each unit. The glycol pump circulation rate for each unit shall not exceed 1200 gallons per hour (20 gallons per minute). (NSR 4221M6, Condition A202B).
Monitoring: The permittee shall monitor the circulation rate monthly. Monitoring shall include a calibration or visual inspection of pump rate setting or other method previously approved by the Department.
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 (Units Dehy-1, Dehy-2)

Requirement: To demonstrate compliance with the allowable VOC emission limits in Table 106.A,: (1) The still vent emissions shall be routed at all times to the condenser. (2) The condenser emissions shall be routed at all times to the reboiler firebox. (3) The flash tank vent shall be routed at all times to a process point that allows the off-gas to be recycled and recompressed, and not vented to the atmosphere.

(NSR 4221M6, Condition A202C).
Monitoring: The permittee shall inspect the glycol dehydrator and the control equipment semi-annually to ensure it is operating as initially designed. The permittee shall also inspect that the reboiler is 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.
Reporting: The permittee shall report in accordance with Section B110.

D. 40 CFR 63, Subpart HH (Units Dehy-1, Dehy-2)

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. (NSR 4221M6, Condition A202D).
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.

E. Gas Throughput (Units Dehy-1, Dehy-2)

Requirement: To demonstrate compliance with the allowable VOC emission limits in Table 106.A, the unit's inlet gas stream shall not exceed 35 MMscf/day. The permittee shall maintain a flow meter that measures the flow rate of gas into or out of the dehydrator. (NSR 4221M6, Condition A202E).
Monitoring: The permittee shall monitor the natural gas flow rate daily (in units of MMscf/day).
Recordkeeping: The permittee shall record the daily total of natural gas throughput each day in units of MMscf/day and in accordance with Section B109.
Reporting: The permittee shall report in accordance with Section B110.

A203 Tanks

A. Tank Throughput (Units T-1, T-2, T-3, T-4)

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 1,005,392 gallons per year (23,938 barrels/year). (NSR 4221M6, Condition A203A).
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 (Version: 3.2.13116.0). 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.

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

A204 Heaters/Boilers

A. Operational Inspections of Boilers and/or Heaters (Units RBL-1, RBL-2, and RBL-3)

Requirement:

(1) Compliance with the allowable emission limits in Table 106.A shall be demonstrated by performing annual inspections to ensure proper operation of Units RBL-1, RBL-2, RBL-3.

(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. (NSR 4221M6, Condition A204A).

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. Units RBL-1, RBL-2, and RBL-3: See Conditions A110 and A111. Compliance with the emission limits in Table 106.A is demonstrated by complying with those conditions.

C. 40 CFR 60, Subpart Dc (Unit RBL-3)

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

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.

D. MACT Subpart DDDDD, Industrial, Commercial, and Institutional Boilers and Process Heaters (Units RBL-1, RBL-2, and RBL-3)

Requirement: The units are subject to 40 CFR 63, Subpart DDDDD and the permittee shall comply with the applicable requirements of 40 CFR 63, Subpart A and Subpart DDDDD.
Monitoring: The permittee shall comply with all applicable monitoring and testing requirements of 40 CFR 63, Subpart A and Subpart DDDDD.
Recordkeeping: The permittee shall comply with the applicable recordkeeping requirements of 40 CFR 63, Subpart A and Subpart DDDDD.
Reporting: The permittee shall comply with the applicable reporting requirements of 40 CFR 63, Subpart A and Subpart DDDDD and the Section B110 of the permit.

A205 Turbines - Not Applicable

A206 Flares

A. Flare Flame and Visible Emissions (20.2.61 NMAC) (Unit Flare-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 flares 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. (NSR 4221M6, Condition A206A).
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: 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 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. 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) 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 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. Flare Operation Requirement (Unit Flare-1)

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

(1) The igniter shall be operational at all times gas is sent to a flare.

(2) The flare shall combust gas at all times gas is sent to a flare.

(3) The flare shall be installed, operated, and maintained according to manufacturer's specifications.

(NSR 4221M6, Condition A206B).

Monitoring: The permittee shall:

(1) Monthly, inspect the flares to ensure they are operating in accordance with the manufacturer's specifications.

(2) Monitor the flare pilot with a SCADA system, or equivalent system, which signals when the pilot is out. In that event, the auto-igniter shall relight the pilot.

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(s) to be compliant.

(2) Maintain a copy of the manufacturer's maintenance recommendations.

(3) The SCADA system shall record the time the pilot is down along with any flow to the flare during that time.

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

C. Flaring Emissions (Unit Flare-1)

Requirement: The permittee shall not exceed the pound per hour (pph) and ton per year (tpy) emission limits of NOx, CO and VOC in Table A106.A and shall demonstrate compliance with these limits by calculating and summarizing these emission rates as required in the recordkeeping condition below. (NSR 4221M6, Condition A206C).

Monitoring: For Unit Flare-1, a gas flowmeter and flow totalizer, equipped with a chart recorder or data logger (electronic storage), shall be installed in the flare lines to measure and record the total standard cubic feet (scf) of gas sent to each flare during each hour and each month.

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 flares for combustion. H_2S shall be 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 flares shall be measured at least once annually with an extended gas analysis.

If used, the flow meter, totalizer, and 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.

Recordkeeping:

The following records shall be kept:

- annual extended gas analyses including H_2S, total sulfur, and VOC content
- both the hourly and monthly flowmeter and flow totalizer measurements of gas sent to the flare

Each month, the permittee shall record and summarize the following:

- H_2S and the total sulfur content from the most recent annual gas analysis
- percent VOC content from the most recent annual gas analysis
- gas heating value (Btu/scf) from the most recent annual gas analysis
- the maximum hourly gas flow rate (scf/hr) that occurred during the month during a process flaring event
- the hourly gas flow rate (scf/hr) due to process flaring events for any hours that exceeded the process flare pph emission limit during the month
- the total month's scf of gas sent to the flares due to process flaring events
- during the first 12-months of monitoring, the cumulative total volume of gas sent to each flare (scf/yr) and calculated emissions due to process flaring events
- after the first 12-months of monitoring, the monthly rolling 12-month total of gas sent to each flare (scf/yr) and calculated emissions due to process flaring events

For each process flaring event, the permittee shall record a description of the equipment, activity, or unit number that is the source of emissions. The permittee shall also meet the recordkeeping requirements in General Condition B109 of this permit.

Records of flowmeter, totalizer, and inline monitor certifications, calibrations, breakdowns, reasons for the breakdown, and corrective actions taken shall be maintained.

Each month, to demonstrate compliance with emission limits, the permittee shall calculate and summarize the maximum pph emission rate, any pph emission rate exceeding the permitted limits, and the ton per year emission rates of NOx, CO, VOC, SO_2, and H_2S using the following information:

- the H_2S content, total sulfur content, VOC content, and the gas heating value (MMBtu/scf) from the most recent gas analyses
- the emission factors used to calculate NOx and CO
- the maximum hourly gas flow rate (scf/hr)
- the hourly gas flow rate (scf/hr) for any hours that exceeded any pph emission limit during the month
- during the first 12 months of monitoring, the cumulative total of gas sent to each flare due to process flaring events

• after the first 12 months of monitoring, the monthly rolling 12-month total of gas sent to each flare (scf/yr) due to process flaring events To demonstrate compliance with each individual emission limit, records shall be kept of the monthly sum of total NOx, CO, VOC, SO_2, and H_2S emissions due to process flaring events during the first 12 months and, thereafter of the monthly rolling 12-month total of NOx, CO, VOC, SO_2, and H_2S emissions due to process flaring events.
Reporting: Records and reports shall be maintained on-site unless specifically required to be submitted to the Department or EPA by another condition of this permit or by a state or federal regulation. Records for unmanned sites may be kept at the nearest company office.

A207 Sulfur Recovery Unit - Not applicable

A208 Amine Unit

A. Amine Unit Control and Flare Operating Requirements (Unit Flare-1 Controlling Amine-1)

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 (Unit Amine-1) are at all times routed to the flare (Unit Flare-1). The flare shall be operational at all times emissions are sent to it. 2) The flare shall be installed, operated, and maintained according to manufacturer's specifications. 3) The flare shall be operated such that no visible emissions are observed, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. 4) 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. (NSR 4221M6, Condition A208A).
Monitoring: 1) The permittee shall inspect the amine unit and its control equipment semi-annually to ensure they are controlled as required and operating in accordance with the manufacturer's recommended operating and maintenance procedures. 2) Quarterly, the permittee shall perform Method 22 observation to certify compliance with the no visible emission requirements. The observation period shall be no less than two hours.
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 maintenance recommendations. 3) The results of Method 22 observations shall be recorded.
Reporting: The permittee shall report in accordance with Section B110.

B. Flare Operation and Emissions Calculation (Unit Flare-1)

Requirement: Compliance with the allowable emission limits in Tables 106.A shall be demonstrated by completing the monitoring, recordkeeping, and reporting specified below. (NSR 4221M6, Condition A208B).
Monitoring:

(1) Flow Monitoring: 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 Unit Flare-1 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 Unit Flare-1 if a flow meter is deemed impractical due to low or inconsistent flow to the unit.

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

(4) Gas Analysis: The permittee shall measure the VOC content, and the heating value (Btu/scf) of the gas sent to the flare for combustion. The VOC content, and heating value (Btu/scf) of the natural gas sent to the flare 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, 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) Hourly Flow Rate: Records of the calculated average hourly flowmeter and flow totalizer measurements of process and assist gas sent to Unit Flare-1 in scf/hr.

(4) Gas Analysis: Sample documentation 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.

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

C. Flare Control Efficiency (Unit Flare-1)

Requirement: Compliance with the allowable emission limits in Table 106.A shall be demonstrated by maintaining a flame anytime gas is routed to Unit Flare-1 and maintaining a combustion temperature that achieves a destruction efficiency at or above 98% for VOCs, and monitoring unit downtime or malfunction. (NSR 4221M6, Condition A208C).

Monitoring: The permittee shall determine a combustion temperature that achieves the required destruction efficiency from periodic emissions testing performed in accordance with A208.D and monitor the burning temperature of the flare continuously and record the temperature once per 24-hour period. Compliance with this condition is defined as operating with temperatures within +/- 2% of the combustion 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. Flare Initial Compliance Test and Periodic Emissions Testing (Unit Flare-1)

Requirement: To demonstrate compliance with the allowable NOx, CO, and VOC emission limits in Table 106.A, the permittee shall perform an initial compliance test on the Flare emissions stack. During the test, all amine units still vent gas streams, authorized by this permit, shall be routed to the flare during the test. If that is not physically possible at the time the compliance testing is due pursuant to Condition B111A(2), the permittee shall meet the requirements B111A(4) until another compliance test is completed. (NSR 4221M6, Condition A208D).
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, CO, and VOCs.
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.

A209 Fugitives

A. 40 CFR 60, Subpart OOOO – Reciprocating Compressors (Units 17-0530, 17-0533, 17-0534, potentially 1-5)

Requirement: The units will be subject to 40 CFR 60, Subparts A and OOOO if the source is constructed, modified, or reconstructed after the applicability date in 40 CFR 60.5365 and the permittee shall comply with the notification requirements in Subpart A and the specific requirements of Subpart OOOO, including standards in 60.5385.
Monitoring: The permittee shall comply with all applicable monitoring requirements in 40 CFR 60, Subpart A and Subpart OOOO, including but not limited to 60.5410 and 60.5415.
Recordkeeping: The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart OOOO, including but not limited to 60.5420.
Reporting: The permittee shall comply with all applicable reporting requirements in 40 CFR 60, Subpart A and Subpart OOOO, including but not limited to 60.5420, and in Section B110.

B. 40 CFR 60, Subpart OOOOa – Reciprocating Compressors (Units 13-0104, 17-0585, 17-0590, 17-0529, 18-1279, potentially 1-5)

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 - Fugitives (Units 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).

MISCELLANEOUS

A800 40 CFR 64, Compliance Assurance Monitoring (CAM) Plan – CAM Requirement applicable to Unit Amine-1, controlled by Flare-1

Requirement: Compliance Assurance Monitoring (CAM) contained in 40 CFR 64 applies to the Amine-1 controlled by Flare-1. The permittee shall meet the requirements of the Provisions in Subparts 64.3(a) and (b); 64.7(d)(2); and 64.8, if applicable.
Monitoring: The permittee shall monitor the following indicators according to the approved CAM Plan in Section C103 and pursuant to 40 CFR 64.3(a) and (b): the presence of pilot flame, presence of visible emissions, and totalized flow volume. The permittee shall continue the monitoring pursuant to 40 CFR 64.7. The permittee shall comply with the measurement approach, performance criteria, and defined excursion for each indicator range or condition that is described in the approved CAM Plan in Section C103 (40 CFR 64.6(c)). The frequency of data collection shall be at least once every 24 hours per 40 CFR 64.3(b)(4)(i) and (iii). The permittee shall respond to any excursion of indicator range or condition in accordance with the CAM Plan and 40 CFR 64.7(d).
Recordkeeping: The permittee shall meet the recordkeeping requirements of the CAM Plan and of 40 CFR 64.9(b).
Reporting: The permittee shall meet the reporting requirements in 40 CFR 64.9(a) and in Section B110. Pursuant to 40 CFR 64.7(e), the permittee shall document and promptly notify the Department's Permit Section, and modify the permit as necessary, of the need for improved monitoring or the need to modify existing indicator ranges or designated conditions pursuant to 40 CFR 64.7(e).

MISCELLANEOUS DOCUMENTS

A801 40 CFR 64, Compliance Assurance Monitoring (CAM) Plan (detailed)

CAM Plan—Unit Amine-1

CAM Monitoring Protocols

40 CFR 64.2 states that the requirements of this part shall apply to an emissions unit at a major source if the unit satisfies *all* the following criteria:

1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant;
2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and
3) The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source.

The operational emissions controlled by flare (Unit Flare-1) are subject to the CAM requirement.

Background

A. Emissions Unit

Description:	Amine-1
Identification:	Amine-1
Facility:	Frac Cat Compressor Station

B. Applicable Regulations and Pre-CAM Monitoring Requirements

Regulations:	Operation and reporting requirements created in NSR Permit 4221-M6 et seq. to establish federally enforceable emission limits for Amine-1 and the control Flare-1. Those applicable requirements are brought forward into this TV Permit.
Emission Limits	
Flare-1:	3.3 tpy VOC 0.044 tpy H_2S
Pre-CAM Monitoring Requirements:	Continuously monitor the presence of a flare pilot flame using a thermocouple or equivalent device approved by the Department and equip the device with a continuous recorder and alarm or equivalent, to detect the presence of a flame. At least once per year during a flaring event, as well as any time visible emissions are observed, conduct a visible emissions observation in accordance with the requirements of 40 CFR 60, Appendix A, Reference Method 22. See Section A206.A in NSR

Permit 4221-M6 for details.
Install gas flowmeters and flow totalizers equipped with a chart recorder or data logger to monitor gas flow and record the total standard cubic feet of gas sent to the flare, including purge gas, pilot gas, assist gas, and process gas.

C. Control Technology and Potential Emissions Rates

Controls:	Flare (Unit Flare-1)
Potential pre-control Device emissions	
Amine-1:	163.22 tpy VOC 2.17 tpy H_2S
Potential post-control device emissions:	98% controlled, 3.3 tpy VOC 98% controlled, 0.044 tpy H_2S

Compliance Assurance Monitoring Plan

Amine-1 emissions will be controlled by a flare (Unit Flare-1). There are several components to the CAM for Unit Flare-1. The monitoring of the flare pilot is continuous; any outages will signal analarm and be recorded. Visible emissions will be monitored annually using Method 22 during aflaring event or any time visible emissions are observed. Flow volume is monitored and recorded continuously with a flow meter.

Justification

The flare should be designed and operated with no visible emissions. Efficient combustion can be assumed if there are no visible emissions. By design, a well-maintained thermocouple (or equivalent) based alarm system will indicate whether a flame is present. The absence of the flame would indicate failure to control emissions. Measurement of totalized flow volume will determine if the flow volume is in line with the permit representations and associated emission limitations. Excursions of the flare system that monitors the presence of combustion or visual emissions will trigger an inspection, corrective action, and reporting. The key elements of the monitoring approach are presented in the table below.

Monitoring Approach: Frac Cat Compressor Station, Unit Amine-1, Flare-1

	Indicator No. 1	**Indicator No. 2**	**Indicator No. 3**
I. Indicator [64.4(a)(1)]	Pilot Flame	Presence of Visible Emissions	Totalized Flow Volume
Measurement Approach	Pilot flame is constantly monitored using a thermocouple or infrared (IR) device as approved by the Division.	The flare will be monitored for visible emissions in accordance with 40 CFR 60, Appendix A, Reference Method 22 once per year during a flaring event, or any time visible emissions are observed.	Gas flow, including process, pilot, purge, and assist gas, to the flare will be measured continuously with gas flowmeters and flow totalizers that are equipped with a chart recorder or data logger.
II. Indicator Range [64.4(a)(2)]	Pilot flame present (sensed) or no pilot flame present (sensed).	Visible emissions are present or not present in accordance with 40 CFR 60, Appendix A, Reference Method 22.	Gas flow rates will be logged each hour and each month that the flare is operational. These calculated values are compared to the most recent permit limits.
III. Performance Criteria			
A. Data Representativeness [64.3(b)(1)]	Destruction depends upon the presence of a flame. If the flame is not present, VOCs and H_2S are not being destroyed.	Efficient combustion is assumed if no visible emissions are observed.	Calculation of emission rates on an hourly and monthly basis demonstrates compliance with permitted emission limitations.
B. Verification of Operational Status [64.3(b)(2)]	Thermocouple and/or equivalent device visually checked quarterly, and the alarm tested twice per year.	Visible emissions will be determined in accordance with 40 CFR 60, Appendix A, Reference Method 22.	The flow meter(s) and totalizer(s) will be operated, calibrated, and maintained as specified by the manufacturer or

			equivalent and as necessary to ensure correct and accurate readings.
C. QA/QC Practices and Criteria [64.3(b)(3)]	Proper operation of the flare achieved by maintaining the non-combustion thermocouple or IR device with alarm system. Thermocouple or IR device visually checked quarterly, and the alarm tested twice per year.	Visible emissions will be determined in accordance with 40 CFR 60, Appendix A, Reference Method 22.	The flow meter(s), totalizer(s) will be operated, calibrated, and maintained as specified by the manufacturer or equivalent and as necessary to ensure correct and accurate readings. The total sulfur content, the VOC content, and the heating value (Btu/scf) sent to flare will be measured at least once annually with an extended gas analysis. The H_2S content will 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 new information from the annual and quarterly analyses are used in the calculations to ensure data quality.
C. Monitoring Frequency [64.3(b)(4)]	The presence of a pilot flame is monitored continuously. The thermocouple and/or IR will be monitored quarterly, and the alarm monitored semiannually.	Monitoring of visible emissions will occur once per year during a flaring event, or any time visible emissions are observed.	Flow is continuously measured with totalized flow rate measured once per 24-hour period.
D. Data Collection Procedures [64.3(b)(4)]	Presence or absence of flame will be recorded in a log. Instances of alarm activation, including the date and cause of alarm activation, actions	Records shall be maintained of all visible emissions observations.	Gas flow rates are logged each hour and each month that the flare is in operation. Records of flowmeter and totalizer certifications, calibrations, breakdowns,

	taken to bring flare into normal operating conditions, and maintenance activities will also be recorded.		reasons for breakdowns, and corrective actions are kept.
E. Averaging Period [64.3(b)(4)]	Not applicable.	Method 22 shall be conducted over a 30-minute time period or the full duration of the event, whichever is shorter.	Hourly.

PART B GENERAL CONDITIONS (Attached)

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