**AIR QUALITY BUREAU**

**NEW SOURCE REVIEW PERMIT**

**Issued under 20.2.72 NMAC**

Certified Mail No:

Return Receipt Requested DRAFT AS OF May 25, 2021

**NSR Permit No:** 8152-M1

**Facility Name:** Jayhawk Compressor Station

**Permittee Name:** XTO Energy, Inc

**Mailing Address:** 2777 Springwood Village Parkway

 W4.6B.374

 Spring , TX 77389

**TEMPO/IDEA ID No:** 38799 - PRN20200001

**AIRS No:** 350251589

**Permitting Action:** Regular **-** Significant Revision

Source Classification: Title V Major – PSD Synthetic Minor

**Facility Location:** UTM E 614061 m, UTM N 3605042 m, 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.]

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**PART B GENERAL CONDITIONS (Attached)**

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

Part A FACILITY SPECIFIC REQUIREMENTS

* 1. Introduction
1. This permit, NSR 8152M1,supersedes all portions of Air Quality Permit 8152, issued May 7, 2019, 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.
	1. Permit Duration (expiration)
2. The term of this permit is permanent unless withdrawn or cancelled by the Department.
	1. Facility: Description
3. The function of the facility is to separate oil, natural gas, and water from a nearby pipeline; temporarily store condensate onsite until it is removed via truck or pipeline; and compress dehydrated natural gas for transport through the sales line.
4. This facility is located approximately 22 miles Northeastof Carlsbad, New Mexico in Lea County.
5. This modification consists of the following: updating facility location coordinates; removal of HTR2, HTR3, ENG10, ENG13, and FL3; increasing glycol circulation rates for DEHY1-3; decreasing the dehydrator reboiler heat capacity from 3 MMBtu/hr to 2 MMBtu/hr; updating tanks throughputs; increasing steady state flaring associated with increased glycol circulation rate and tank throughput; updating sources venting to flares; increasing flare purge gas rates, updating stack heights for FL1/FL2; addition of inlet gas flaring; updating sources venting to VC1 from DEHY1-3; updating ENG1-9 and ENG11-12 VOC/formaldehyde/CO control efficiencies and emissions factors from Caterpillar Gas Engine Rating Pro (GERP) analysis; decreasing condensate truck loading, updating nomenclature for tanks; updating low pressure separator pressure from 2 psig to 15 psig; and addition of VOC malfunction emissions. The description of this modification is for informational purposes only and is not enforceable.
6. 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 Dioxide | 204.7 |
| Carbon Monoxide | 226.5 |
| Volatile Organic Compounds (VOC) | 250.2 |
| Sulfur Dioxide | 19.5 |
| Particulate Matter  | 16.8 |
| Particulate Matter (10 microns or less) | 16.8 |
| Particulate Matter (2.5 microns or less) | 16.8 |
| Greenhouse gas CO2e | 259,101 |

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.

| **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 | 4.6 |
| Benzene | 1.0 |
| Formaldehyde | 19.4 |
| Hexane | 2.2 |
| Total HAP | 28.8 |

\* 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.

* 1. Facility: Applicable Regulations
1. 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 Facility |  | OT1, OT2, OT3, OT4  |
| 20.2.61 NMAC Smoke and Visible Emissions | X | ENG1-9, ENG11-12, FL1, FL2, VC1, VC2, RB1, RB2, RB3, HTR1 |
| 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 |
| 20.2.75 NMAC Construction Permit Fees | 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 |
| 40 CFR 50 National Ambient Air Quality Standards | X | Entire Facility |
| 40 CFR 60, Subpart A, General Provisions | X | FUG, ENG1-9, ENG11-12 (TBD)1,2, Compressors for ENG1-9, ENG11-12 (TBD)2, OT1-OT4 |
| 40 CFR 60, Subpart JJJJ | X | ENG1-9. ENG11-12 (TBD)1,2 |
| 40 CFR 60, Subpart OOOOa | X | FUG, Compressors for ENG1-9, ENG11-12 (TBD)2 |
| 40 CFR 63, Subpart A, General Provisions | X | ENG1-9, ENG11-12, DEHY1–DEHY3 |
| 40 CFR 63, Subpart HH | X | DEHY1–DEHY3 |
| 40 CFR 63, Subpart ZZZZ | X | ENG1-9, ENG11-12 (TBD)1 |

1 All TBD engines require review of the applicability of 40 CFR 60, Subpart JJJJ; and 40 CFR 63, Subpart ZZZZ by the permittee when each potentially affected unit is ordered.

2 The TBD compressors require review of the applicability of 40 CFR 60, Subpart OOOOa by the permittee when each potentially affected unit is ordered.

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

| **Table 104.A: Regulated Sources List** |
| --- |
| **Unit No.** | **Source Description** | **Make** | **Model** | **Serial No.** | **Construction/ Reconstruction Date** | **Manufacture Date** | **Manufacturer Rated Capacity /Permitted Capacity**  |
| ENG1 | 4SLB RICE | Caterpillar | G3616 | TBD | TBD | TBD | 5000 hp / 5000 hp |
| ENG2 | 4SLB RICE | Caterpillar | G3616 | TBD | TBD | TBD | 5000 hp / 5000 hp |
| ENG3 | 4SLB RICE | Caterpillar | G3616 | TBD | TBD | TBD | 5000 hp / 5000 hp |
| ENG4 | 4SLB RICE | Caterpillar | G3616 | TBD | TBD | TBD | 5000 hp / 5000 hp |
| ENG5 | 4SLB RICE | Caterpillar | G3616 | TBD | TBD | TBD | 5000 hp / 5000 hp |
| ENG6 | 4SLB RICE | Caterpillar | G3616 | TBD | TBD | TBD | 5000 hp / 5000 hp |
| ENG7 | 4SLB RICE | Caterpillar | G3616 | TBD | TBD | TBD | 5000 hp / 5000 hp |
| ENG8 | 4SLB RICE | Caterpillar | G3616 | TBD | TBD | TBD | 5000 hp / 5000 hp |
| ENG9 | 4SLB RICE | Caterpillar | G3616 | TBD | TBD | TBD | 5000 hp / 5000 hp |
| ENG11 | 4SLB RICE | Caterpillar | 3516J TA | TBD | TBD | TBD | 1380 hp / 1380 hp |
| ENG12 | 4SLB RICE | Caterpillar | 3516J TA | TBD | TBD | TBD | 1380 hp / 1380 hp |
| HTR1 | Heater | Wenco Energy Corp | TBD | TBD | 2019 | 2019 | 0.75 MM BTU/h /0.75 MM BTU/h |
| RB1 | Glycol Dehy Reboiler Burner | Flameco | TBD | TBD | 2019 | 2019 | 2 MM BTU/h / 2 MM BTU/h |
| RB2 | Glycol Dehy Reboiler Burner | TBD | TBD | TBD | TBD | TBD | 2 MM BTU/h / 2 MM BTU/h |
| RB3 | Glycol Dehy Reboiler Burner | TBD | TBD | TBD | TBD | TBD | 2 MM BTU/h / 2 MM BTU/h |
| FL1 | HP Process Flare | Tornado | TBD | TBD | 2020 | 2020 | 70 MM SCF/d / 70 MM SCF/d |
| FL2 | LP Process Flare | Tornado | TBD | TBD | TBD | TBD | 70 MM SCF/d / 70 MM SCF/d |
| VC1 | Vapor Combustor Unit | Cimarron Energy | TBD | TBD | TBD | TBD | Vapor Combustor Unit |
| VRU1 | Vapor Recovery Unit | TBD | TBD | TBD | TBD | TBD | 125 hp / 125 hp |
| VRU2 | Vapor Recovery Unit | TBD | TBD | TBD | TBD | TBD | 125 hp / 125 hp |
| SKT1 | Produced Water Tank | Stellmation | TBD | TBD | TBD | TBD | 1000 bbl / 2660433 gal/y |
| SKT2 | Produced Water Tank | TBD | TBD | TBD | TBD | TBD | 1000 bbl / 2660433 gal/y |
| OT1 | Condensate Tank | Stellmation | TBD | TBD | TBD | TBD | 500 bbl / 3120436 gal/y |
| OT2 | Condensate Tank | Stellmation | TBD | TBD | TBD | TBD | 500 bbl / 3120436 gal/y |
| OT3 | Condensate Tank | Stellmation | TBD | TBD | TBD | TBD | 500 bbl / 3120436 gal/y |
| OT4 | Condensate Tank | Stellmation | TBD | TBD | TBD | TBD | 500 bbl / 3120436 gal/y |
| WT1 | Produced Water Tank | Stellmation | TBD | TBD | TBD | TBD | 500 bbl / 2614573 gal/y |
| WT2 | Produced Water Tank | Stellmation | TBD | TBD | TBD | TBD | 500 bbl / 2614573 gal/y |
| DEHY1 | TEG Dehydrator with Condenser | TBD | TBD | TBD | TBD | TBD | 80 MM SCF/d / 80 MM SCF/d |
| DEHY2 | TEG Dehydrator with Condenser | TBD | TBD | TBD | TBD | TBD | 80 MM SCF/d / 80 MM SCF/d |
| DEHY3 | TEG Dehydrator with Condenser | TBD | TBD | TBD | TBD | TBD | 80 MM SCF/d / 80 MM SCF/d |
| LPS | Low Pressure Separator | NA | NA | NA | NA | NA | NA |
| LOAD | Loading/Unloading Rack | NA | NA | NA | NA | NA | 223 bbl/d |
| FUG | Fugitives Emissions | NA | NA | NA | NA | NA | NA |
| SSM Venting | ENG1-9, ENG11-12 blowdowns | NA | NA | NA | NA | NA | NA |
| SSM Flaring | SSM Flaring | NA | NA | NA | NA | NA | NA |
| Malfunction | Malfunction Emissions | 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.

* 1. Facility: Control Equipment
1. 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.A: Control Equipment List:** |
| --- |
| **Control Equipment Unit No.** | **Control Description** | **Pollutant being controlled** | **Control for Unit Number(s)1** |
| FL1 | Dual High Pressure/Low Pressure Flare | VOC, HAP | Facility inlet, OT1-OT4, WT1-WT2, SKT1, SKT2, LPS |
| FL2 | Dual High Pressure/Low Pressure Flare | VOC, HAP | Facility inlet, OT1-OT4, WT1-WT2, SKT1, SKT2, LPS |
| VRU1 | Vapor Recovery Unit – Primary | VOC, HAP | LPS |
| VRU2 | Vapor Recover Unit - Backup | VOC, HAP | LPS |
| VC1 | Vapor Combustor | VOC, HAP | DEHY1-3, BTEX Condenser Vapors (COND1-3) |
| COND1-3 | BTEX Condenser | VOC, HAP | DEHY1-3 |
| CAT1-9, CAT11-12 | Oxidative Catalysts | CO, VOC, HAP | ENG1-9, 11, 12 |

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

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

 **Table 106.A: Allowable Emissions**

| **Unit No.** | **NOx (pph)** | **1NOx (tpy)** | **CO (pph)** | **CO (tpy)** | **VOC (pph)** | **VOC (tpy)** | **SO2 (pph)** | **SO2 (tpy)** | **PM 2.5/****PM 10****(pph)** | **PM 2.5/****PM 10****(tpy)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ENG1 | 4.1 | 18.1 | 4.4 | 19.2 | 3.5 | 15.2 | < | < | < | 1.7 |
| ENG2  | 4.1 | 18.1 | 4.4 | 19.2 | 3.5 | 15.2 | < | < | < | 1.7 |
| ENG3  | 4.1 | 18.1 | 4.4 | 19.2 | 3.5 | 15.2 | < | < | < | 1.7 |
| ENG4  | 4.1 | 18.1 | 4.4 | 19.2 | 3.5 | 15.2 | < | < | < | 1.7 |
| ENG5  | 4.1 | 18.1 | 4.4 | 19.2 | 3.5 | 15.2 | < | < | < | 1.7 |
| ENG6  | 4.1 | 18.1 | 4.4 | 19.2 | 3.5 | 15.2 | < | < | < | 1.7 |
| ENG7  | 4.1 | 18.1 | 4.4 | 19.2 | 3.5 | 15.2 | < | < | < | 1.7 |
| ENG8  | 4.1 | 18.1 | 4.4 | 19.2 | 3.5 | 15.2 | < | < | < | 1.7 |
| ENG9  | 4.1 | 18.1 | 4.4 | 19.2 | 3.5 | 15.2 | < | < | < | 1.7 |
| ENG11  | 1.9 | 8.3 | 1.0 | 4.4 | 1.3 | 5.6 | < | < | < | < |
| ENG12  | 1.9 | 8.3 | 1.0 | 4.4 | 1.3 | 5.6 | < | < | < | < |
| RB1  | < | 1.3 | < | 1.1 | < | < | < | < | < | < |
| RB2  | < | 1.3 | < | 1.1 | < | < | < | < | < | < |
| RB3  | < | 1.3 | < | 1.1 | < | < | < | < | < | < |
| FL1/FL2 pilot | 0.7 | 2.9 | 1.3 | 5.8 | 0.9 | 4.1 | 0.01 | 0.03 | 0.03 | 0.13 |
| FL1/FL2 normal (steady-state) | 1.9 | 7.7 | 3.7 | 15.4 | 11.5 | 25.6 | 0.01 | 0.04 | 0.03 | 0.15 |
| VC1  | 0.4 | 1.8 | 0.8 | 3.6 | 2.6 | 11.4 | 0.3 | 1.3 | < | < |
| SKT1 | - | - | - | - | 0 | 0 | - | - | - | - |
| SKT2  | - | - | - | - | 0 | 0 | - | - | - | - |
| OT1 | - | - | - | - | 0 | 0 | - | - | - | - |
| OT2  | - | - | - | - | 0 | 0 | - | - | - | - |
| OT3  | - | - | - | - | 0 | 0 | - | - | - | - |
| OT4  | - | - | - | - | 0 | 0 | - | - | - | - |
| WT1 | - | - | - | - | 0 | 0 | - | - | - | - |
| WT2 | - | - | - | - | 0 | 0 | - | - | - | - |
| DEHY1  | - | - | - | - | 0 | 0 | - | - | - | - |
| DEHY2  | - | - | - | - | 0 | 0 | - | - | - | - |
| DEHY3  | - | - | - | - | 0 | 0 | - | - | - | - |
| LPS | - | - | - | - | 0 | 0 | - | - | - | - |
| LOAD  | - | - | - | - | \* | 11.1 | - | - | - | - |

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

2 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.

3 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.

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

**Table 106.B: 40 CFR 63, Subpart JJJJ for Units ENG1-ENG9 (G3616), and ENG11-12 (G3516J)**

| **Engine type and fuel** | **Maximum engine power** | **Manufacture date** | **Emission Standards** |
| --- | --- | --- | --- |
| **g/HP-hr** | **ppmvd at 15% O2** |
| **NOx** | **CO**  | **VOC**  | **NOx** | **CO**  | **VOC**  |
| G3616 | 5000 | After 2010 | 1.0 | 2.0 | 0.7 | 82 | 270 | 60 |
| G3516J | 1380 | After 2010 | 1.0 | 2.0 | 0.7 | 82 | 270 | 60 |

* 1. Facility: Allowable Startup, Shutdown, & Maintenance (SSM) and Malfunction Emissions
1. 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** | **NOx (pph)**  | **NOx (tpy)**  | **CO (pph)** | **CO (tpy)** | **VOC (pph)**  | **VOC (tpy)**  | **SO2** **(pph)** | **SO2** **(tpy)** | **PM 2.5/****PM 10****(pph)** | **PM 2.5/****PM 10****(tpy)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SSM Flaring(FL1/FL2) | Routine and Predictable Startup, Shutdown, and/or Maintenance (SSM) | 541.7 | 8.1 | 1081.4 | 16.8 | 993.0 | 18.4 | 4.9 | 0.1 | 22.2 | 0.31 |
| SSM from ENG1-9, ENG11-12 | 1Compressor & Associated Piping Blowdowns during Routine and Predictable Startup, Shutdown, and/or Maintenance (SSM) | - | - | - | - | \* | 10 | - | - | - | - |
| M | 1Venting of Gas Due to Malfunction | - | - | - | - | \* | 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 B110F.

“\*” indicates hourly emission limits are not appropriate for this operating situation.

1. 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.
2. SSM Flaring Emissions

|  |
| --- |
| **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, cause and duration of routine or predictable startup, shutdown, and scheduled maintenance events. |
| **Recordkeeping:** The permittee shall maintain records of all calculations and parameters used to determine emission rates in spreadsheet format and in accordance with Condition B109.1. **Hourly Emissions Calculations:** The permittee shall calculate the pph NOx, CO, VOC, and SO2 emission rates for each hour of each SSM event using these parameters:
2. the calculated average hourly flow rate of all gas combusted by the flare, including pilot, purge, and assist gas, if applicable, from Condition A206.B;
3. H2S content, total sulfur content, VOC content, and heating value (BTU/scf) of the gas from Condition A206.B;
4. the emission factors represented in the permit application and approved by the Department, for NOx and CO emission rates; and
5. VOC emission rates calculated using the destruction efficiency represented in the permit application and approved by the Department.
6. **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:
7. During the first 12 months of this condition taking effect, the permittee shall record the monthly total tons of NOx, CO, VOC, and SO2, emissions.
8. After the first 12 months of this condition taking affect, the permittee shall record the monthly rolling 12-month total tpy NOx, CO, VOC, and SO2 emissions.
9. **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. |

1. SSM Venting Emissions from Compressor Blowdowns (Units ENG1-9, ENG11-12)

|  |
| --- |
| **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. |

1. 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 (M) 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. |

* 1. Facility: Allowable Operations
1. This facility is authorized for continuous operation. Monitoring, recordkeeping, and reporting are not required to demonstrate compliance with continuous hours of operation.
	1. Facility: Reporting Schedules
2. The permittee shall report according to the Specific Conditions and General Conditions of this permit.
	1. Facility: Fuel and Fuel Sulfur Requirements
3. Fuel and Fuel Sulfur Requirements

|  |
| --- |
| **Requirement:** All combustion emission units shall combust only natural gas containing no more than 3.8grains 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. |

* 1. Facility: 20.2.61 NMAC Opacity
1. 20.2.61 NMAC Opacity Limit (Units ENG1-9, ENG11-12, RB1, RB2, RB3, HTR1)

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|  **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:
				1. 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.
				2. 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:
				1. 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.
				2. For any opacity observations conducted in accordance with the requirements of EPA Method 9, record the information on the form referenced in EPA Method 9, Sections 2.2 and 2.4.
 |
| **Reporting:** The permittee shall report in accordance with Section B110. |

EQUIPMENT SPECIFIC REQUIREMENTS

Oil and Gas Industry

* 1. Oil and Gas Industry
1. This section has common equipment related to most Oil and Gas Operations.
	1. Engines
2. Periodic Emissions Testing (Units ENG1-9, ENG11-12)

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| **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:Load(Hp) = Fuel consumption (scfh) x Measured fuel heating value (LHV btu/scf) Manufacturer’s rated BSFC (btu/bhp-hr) at 100% load or best efficiency(1) The testing shall be conducted as follows:1. Testing frequency shall be once per quarter.
2. The monitoring period is defined as a calendar quarter.

(2) The first test shall occur within the first monitoring period occurring after permit issuance.(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.  |

1. Initial Compliance Test (Units ENG1-9, ENG11-12)

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| **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:Load(Hp) = Fuel consumption (scfh) x Measured fuel heating value (LHV btu/scf) 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. |

1. Catalytic Converter Operation (Units ENG1-9, ENG11-12)

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| **Requirement:** The units shall be equipped and operated with an oxidation catalytic converter to control CO, VOC, and HAP emissions. Engines equipped with oxidation catalysts are not required to operate with an AFR. 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:** Each unit 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; 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. |

1. 40 CFR 60, Subpart JJJJ (Units ENG1-9, ENG11-12)

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| **Requirement:** The units will be subject to 40 CFR 60, Subparts A and JJJJ if the units are 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. |

1. 40 CFR 63, Subpart ZZZZ (Units ENG1-9, ENG11-12)

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| **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. |

* 1. Glycol Dehydrators
1. Extended Gas Analysis and Promax® or GRI-GLYCalc Calculation (Units DEHY1-3)

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| **Requirement:** Compliance with the allowable VOC emission limits in Table 106.A shall be demonstrated by:(1) The dehydrators shall be equipped with BTEX condensers; and(2) The permittee shall conduct an annual extended gas analysis on the dehydrator inlet gas. |
| **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, such as Promax ®, 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. The permittee shall keep a record of the results, noting the emission rates for the dehydrator obtained from estimates using GRI-GLYcalc. |
| **Reporting:** The permittee shall report in accordance with Section B110.  |

1. Glycol pump circulation rate (Units DEHY1-3)

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| **Requirement:** Compliance with the allowable VOC emission limits in Table 106.A shall be demonstrated by monitoring the glycol pump circulation rate for each unit and it shall not exceed 1,656 gallons per hour (27.6 gallons per minute).  |
| **Monitoring:** The permittee shall monitor the circulation rate monthly. Monitoring shall include a calibration or visual inspection of pump rate setting. |
| **Recordkeeping:** The permittee shall maintain records that include a description of the monitoring and are in accordance with Section B109. |
| **Reporting:** The permittee shall report in accordance with Section B110.  |

1. Control Device Inspection (Units VC1, COND1-3)

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| **Requirement:** To demonstrate compliance with the allowable VOC emission limits in Table 106.A:(1) The still vent (Units DEHY1, DEHY2, DEHY3) emissions shall be routed at all times to the associated BTEX condensers (Units COND1, COND2, COND3).(2) The flash tank vapors shall be captured and recycled in the dehydration system, and not vented to the atmosphere.(3) All the non-condensed hydrocarbon vapors resulting from the BTEX condensers (Units COND1, COND2, COND3) shall be routed directly to the vapor combustor (Unit VC1) and be destroyed.(4) The BTEX condensers (Units COND1, COND2, COND3) and the vapor combustor (Unit VC1) shall be operational at all times that the facility is in operation. The BTEX condensers (Units COND1, COND2, COND3) and the vapor combustor (Unit VC1) shall be installed, operated, and maintained according to manufacturers’ specifications. |
| **Monitoring:** The permittee shall inspect the glycol dehydrator and the control equipment semi-annually to ensure it is operating in accordance with the manufacturer’s recommended procedures.  |
| **Recordkeeping:** The permittee shall record the inspections and the results of all equipment and control device inspections chronologically, noting any maintenance or repairs needed to bring the dehydrator or other equipment into compliance. The permittee shall maintain a copy of the manufacturer’s maintenance recommendations. |
| **Reporting:** The permittee shall report in accordance with Section B110.  |

1. Vapor Combustor (Unit VC1): Control Device for Uncondensed Hydrocarbon Vapors from the BTEX Condensers (Units COND1-COND3)

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| **Requirement:** The permittee shall install, operate, and maintain the vapor combustor (Unit VC1) according to the manufacturer’s specifications.* + - 1. The permittee shall ensure that all uncondensed hydrocarbon vapors from BTEX condensers are, at all times, routed to a vapor combustor (Unit VC1). The permittee shall ensure that the BTEX condenser emissions do not vent to the atmosphere. During vapor combustor (Unit VC1) downtime, all emissions shall be reported as excess emissions under 20.2.7 NMAC.
			2. In the event that a leak or defect is detected, the permittee shall repair the leak or defect as soon as practicable, not to exceed thirty days, and in a manner than minimized emissions to the atmosphere.
 |
| **Monitoring:** The permittee shall monitor the following:* + - 1. The date, start time, and end time of any downtime and/or maintenance of a vapor combustor (Unit VC1).
			2. Monthly, inspect the BTEX condensers for proper routing to the vapor combustor (Unit VC1) and inspect the BTEX condensers and the vapor combustor (Unit VC1) for defects. Defects include, but are not limited to, visible cracks, holes, or gaps: broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps or other closure devices.
 |
| **Recordkeeping:** * + - 1. The permittee shall record the name of the person conducting the inspection and the results of all monthly equipment inspections, contemporaneously noting any maintenance or repairs needed to bring the BTEX condensers and/or vapor combustor (Unit VC1) into compliance with permit conditions.
			2. The permittee shall record the date, start time, and end time of any downtime and/or maintenance of a vapor combustor (Unit VC1).
 |
| **Reporting:** The permittee shall report in accordance with Section B110. |

1. 40 CFR 63, Subpart HH (Units DEHY1, DEHY2, DEHY3)

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| **Requirement:** The units are subject to 40 CFR 63, Subpart HH and the permittee shall comply with all applicable requirements. |
| **Monitoring:** The permittee shall monitor as required by 40 CFR 63.772(b)(2) to demonstrate facility is exempt from general standards. |
| **Recordkeeping:** The permittee shall generate and maintain the records required by 40 CFR 63.774(d)(1)(ii) to demonstrate compliance with the general standard exemptions found in 40 CFR 63.764(e).  |
| **Reporting:** The permittee shall meet all applicable reporting in 40 CFR 63, Subparts A and HH and in Section B110. |

* 1. Tanks: Tanks and Low-Pressure Separator
1. Condensate Tank Throughput (Units OT1-4)

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| **Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by limiting the monthly rolling 12-month total condensate combined throughput to the four (4) units to 12,481,744 gallons per year (297,184 barrels/year)  |
| **Monitoring:** The permittee shall monitor the monthly total combined throughput once per month. |
| **Recordkeeping:** The permittee shall record the monthly total combined 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®. 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. |

1. Skim Tank Separator Throughput (Primary Unit SKT1 or Backup Unit SKT2)

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| **Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by limiting the monthly rolling 12-month total combined water throughput to the unit to 2,660,433 gallons per year (63,344 barrels/year). Monitoring the throughput of water at the metered water storage tanks, or by an equivalent measurement system, will demonstrate water flow through this unit. |
| **Monitoring:** 1. The permittee shall monitor the monthly total combined throughput to the gun barrel separator (Primary Unit SKT1 or Backup Unit SKT2) once per month.
2. At least once per month, the permittee shall inspect Units SKT1 and SKT2 and associated piping 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 HAPs emissions to the atmosphere.
 |
| **Recordkeeping:** The permittee shall record: 1. the monthly total throughput of liquids and,
2. Each month the permittee shall use these values to calculate and record:
3. during the first 12 months of monitoring, the cumulative total liquid throughput and after the first 12 months of monitoring, the monthly rolling 12-month total liquid throughput.

Gunbarrel emissions were calculated using ProMax®. 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. The permittee shall also record:1. the name of the person conducting the inspections for defects and,
2. the results of all monthly inspections, contemporaneously noting any maintenance or repairs needed to bring the gun barrel separator(s) into compliance with permit conditions.

Records shall be maintained in accordance with Section B109.  |

1. Flares (Units FL1, FL2): Control Device for Condensate Tanks (Units OT1-4), Produced Water Tanks (WT1, WT2), and Skim Tanks (SKT1, SKT2)

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| **Requirement:** 1. The permittee shall install, operate, and maintain the flares (Units FL1, FL2) according to the manufacturer’s specifications.
2. The permittee shall ensure that all emissions from the Condensate Tanks (Units OT1-4), Produced Water Tanks (WT1, WT2), and Skim Tanks (SKT1, SKT2) are at all times routed to a flare (Units FL1 and/or FL2). The permittee shall ensure that the Condensate Tanks (Units OT1-4), Produced Water Tanks (WT1, WT2), and Skim Tanks (SKT1, SKT2) emissions do not vent to the atmosphere. During flare (Units FL1 and FL2) downtime, all emissions shall be reported as excess emissions under 20.2.7 NMAC.
3. In the event that a leak or defect is detected, the permittee shall repair the leak or defect as soon as practicable, not to exceed thirty days, and in a manner than minimized emissions to the atmosphere.
 |
| **Monitoring:** The permittee shall monitor the following:1. The date, start time, and end time of any downtime and/or maintenance of a flare (Units FL1or FL2).
2. Monthly, inspect the Condensate Tanks (Units OT1-4) and Skim Tanks (SKT1, SKT2) for proper routing to a flare (Units FL1 or FL2) and inspect the Condensate (Units OT1-4), Produced Water Tanks (WT1, WT2), and Skim Tanks (SKT1, SKT2) and the flares (Units FL1 or FL2) for defects. Defects include, but are not limited to, visible cracks, holes, or gaps: broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps or other closure devices.
 |
| **Recordkeeping:** 1. The permittee shall record the name of the person conducting the inspection and the results of all monthly equipment inspections, contemporaneously noting any maintenance or repairs needed to bring the Condensate Tanks (Units OT1-4), Produced Water Tanks (WT1, WT1), Skim Tanks (SKT1, SKT2), and/or flares (Units FL1 or FL2) into compliance with permit conditions.
2. The permittee shall record the date, start time, and end time of any downtime and/or maintenance of a flare (Units FL1 or FL2).
 |
| **Reporting:** The permittee shall report in accordance with Section B110. |

1. Low Pressure Separator (LPS) and Control Devices (Vapor Recovery Units VRU1, VRU2 and Flares FL1, FL2)

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| **Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by capturing and routing the Low Pressure Separator VOC emissions as a closed loop system to VRU1 or VRU2 (back-up) and shall not vent to the atmosphere. In the event of VRU downtime, the Low Pressure Separator emissions shall be routed to Flares FL1 and/or FL2. |
| **Monitoring:** At least once per month, the permittee shall inspect the vapor recovery unit 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 HAPs emissions to the atmosphere.  |
| **Recordkeeping:** The permittee shall record the results of the vapor recovery unit inspections chronologically, noting any maintenance or repairs that are required.  |
| **Reporting:** The permittee shall report in accordance with Section B110. |

1. Truck Loading – Condensate Oil Loadout (Unit LOAD)

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| **Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by limiting the total annual condensate loadout volume to 3,419,640 gallons per year (81,420 barrels/year).  |
| **Monitoring:** The permittee shall monitor the condensate oil 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.  |

1. 20.2.38 NMAC, Hydrocarbon Storage Facilities (Units OT1-4)

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| **Requirement:** The permittee shall comply with 20.2.38 112 NMAC. The permittee shall install flares 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 tank(s) operation accordance with Section B119.  |
| **Recordkeeping:** The permittee shall record in accordance with Section B110.  |
| **Reporting:** The permittee shall report in accordance with Section B110. |

* 1. Heaters/Boilers
1. Operational Inspections of Boilers and/or Heaters (Units RB1, RB2, RB3)

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| **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 RB1, RB2, and RB3.
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:
	1. 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;
	2. 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.  |

1. Units RB1-RB3: See Conditions A110 and A111. Compliance with the emission limits in Table 106.A is demonstrated by complying with those conditions.
	1. Turbines – Not required
	2. Flares
2. Flare Flame & Visible Emissions (20.2.61 NMAC) (Units FL1, FL2)

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| **Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by the flares being equipped with a system to ensure that they are 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.  |
| **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. 1. 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.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. 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.1. 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.  |

1. Flare Gas Flow Monitoring and Gas Analysis (Units FL1 and FL2)

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| **Requirement:** Compliance with the flare allowable emission limits in Table 106.A and Table 107.A shall be demonstrated by completing the monitoring, recordkeeping, and reporting required by this condition and Condition A206.C. All flow meters and inline chemical composition analyzers shall be installed, calibrated, operated and maintained in accordance with the requirements of Condition B108.H. |
| **Monitoring:** 1. **Gas Flow:**
2. One or more gas flowmeters equipped with a chart recorder or data logger (electronic storage) shall be installed to continuously monitor the flow (scf) of gas sent to the flare.
3. Pilot, purge, and assist gas, if applicable, shall be monitored using a gas flowmeter under (a) or determined using manufacturer’s specifications or engineering estimates.
4. **Gas Analysis:**
5. Once per calendar year, the permittee shall perform a gas analysis, including measurement of the total sulfur content, VOC content, and heating value (BTU/scf) of gas sent to the flare for combustion. Gas analyses shall be separated by a minimum of six (6) months.
6. Alternatively, for H2S only, in lieu of an annual analysis, H2S may be measured quarterly using a stain tube(s) of the appropriate size range or with an inline chemical composition analyzer.
7. **Calibration:** In addition to the requirements of Condition B108.H, flow meters and inline chemical composition analyzers shall be operated, calibrated, and maintained as specified by the site-specific operations and maintenance plan, if applicable.
 |
| **Recordkeeping:** The following records shall be maintained in accordance with Condition B109.1. **Gas Flow:**
2. Records of continuous flowmeter measurements and the hourly flow rate in scf/hr calculated by averaging *a minimum* of four (4) equally spaced readings for each hour.
3. Manufacturer’s specifications or engineering estimates used for pilot, purge, and assist (if applicable) gas flow rates.
4. **Gas Analysis:** All sample documentation received from the laboratory or testing service company, including H2S content, the total sulfur content, the VOC content, and the heating value (BTU/scf), analysis method utilized, and sample chain of custody. If stain tubes are used for measuring H2S content, records of the results, including size range of stain tubes used, the date of the test, and the name of the person conducting the test.
5. **Calibration:** Records of all flowmeter and inline monitor certifications, calibrations, data capture calculations and documentation as specified by Condition B108.H, as well as any breakdowns, reasons for the breakdown, and corrective actions. The permittee shall also maintain a copy of the manufacturer specifications for operation and calibration or the site-specific operations and maintenance plan for flowmeters and inline monitors.
 |
| **Reporting:** The permittee shall report in accordance with Condition B110. |

1. Flare Emissions Calculation (Units FL1 and FL2)

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| **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.B 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, SO2, and H2S emission rates using these parameters:
2. the calculated average hourly flow rate of all gas combusted by the flare, including pilot, purge, and assist gas, if applicable, from Condition A206.B;
3. gas analysis, including H2S content, total sulfur content, VOC content, and heating value (BTU/scf) of the gas from Condition A206.B;
4. the emission factors represented in the permit application and approved by the Department, for NOx and CO emission rates; and
5. VOC and H2S emission rates calculated using the destruction efficiency represented in the permit application and approved by the Department.
6. **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:
7. During the first 12 months of this condition taking effect, the permittee shall record the total tons of NOx, CO, VOC, SO2, and H2S emissions.
8. After the first 12 months of this condition taking effect, the permittee shall record the monthly rolling 12-month total tpy NOx, CO, VOC, SO2, and H2S emissions.
 |
| **Reporting:** The permittee shall report in accordance with Section B110. |

1. Flare Parametric Monitoring for Low Pressure Sides - Low Pressure Side Pilots and Vapors from Condensate Tanks (Units FL1, FL2)

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| **Requirement:** Compliance with the allowable emission limits in Table 106.A shall be demonstrated by operating the flare in accordance with the requirements specified in recordkeeping below. |
| **Monitoring:** The permittee shall monitor the flares in accordance with Condition A.206.C. |
| **Recordkeeping:** The permittee shall use the information recorded in Condition A.206.C to calculate the flow rate to determine if the facility meets the velocity requirements of this Condition.The maximum tip velocity of the flare, (Vmax), shall be determined annually, and records kept demonstrating that the actual flare tip velocity does not exceed the allowable Vmax. Compliance shall be determined utilizing either method (a), (b), or (c) below:The maximum permitted velocity (i.e., the greater of either calculated Vmax, 60 ft/sec or 400 ft/sec, based on method (a), (b), or (c) below) shall be recorded as feet/second and the corresponding total flow rate to the flare in MMscf/hour shall be used to compare to the actual volumetric flow rate (at STP) to demonstrate compliance with the maximum velocity permitted.(a) Actual tip velocity less than 60 feet per second (ft/sec) for gases having a lower heating value less than 1000 Btu/ft3 will be in compliance with this requirement.(b) Actual tip velocity less than 400 ft/sec for gases having a lower heating value greater than 1000 Btu/ft3 will be in compliance with this requirement.(c) Actual tip velocity less than the calculated maximum velocity (Vmax) using the following equations will be in compliance with this requirement. The calculated Vmax shall be based on the weighted mean heating value of the inlet gas plus supplemental fuel gas.Vmax of the flare shall be calculated annually and determined using the following equation:Log*10* (V*max*)=(H*T* + 28.8)/31.7V*max*=Maximum permitted velocity, M/sec28.8=Constant31.7=ConstantH*T*=The net heating value is determined using the following equation: https://encrypted-tbn1.gstatic.com/images?q=tbn:ANd9GcRscr5jTjm8tLrLhp2iqGuFsrgISstVrGOTwtQypJiHnTpiaHAaWAwhere:HT=Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off-gas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;eCFR graphic ec01jn92.009.gifC*i*=Concentration of sample component “i” in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994); andH*i*=Net heat of combustion of sample component i, kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95The maximum permitted velocity, V*max*, for air-assisted flares shall be determined by the following equation:V*max*=8.706 + 0.7084 (H*T*)V*max*=Maximum permitted velocity, m/sec8.706=Constant0.7084=ConstantHT=The net heating value as determined above.3) The permittee shall maintain records in accordance with Section B109. |
| **Reporting:** The permittee shall report in accordance with Section B110.  |

* 1. Sulfur Recovery Unit – Not Required
	2. Amine Unit – Not Required
	3. Fugitives
1. 40 CFR 60, Subpart OOOOa – Fugitives (Unit FUG)

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| **Requirement:** The permittee shall comply with 40 CFR 60, Subparts A and OOOOa if a source is constructed, modified, or reconstructed after the applicability date in 40 CFR 60.5365a; and the permittee shall comply with the notification requirements in Subpart A and the specific requirements of Subpart OOOOa, including standards in 60.5400a. |
| **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, 60.5415a(c), and 60.5415a(h). |
| **Recordkeeping:** The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart OOOOa, including but not limited to 60.5415a(c), 60.5415a(h), and 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. |

1. 40 CFR 60, Subpart OOOOa – (Reciprocating Compressors associated with Units ENG1-9, ENG11-12)

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| **Requirement:** The permittee shall comply with 40 CFR 60, Subparts A and OOOOa if a source is constructed, modified, or reconstructed after the applicability date in 40 CFR 60.5365a; and the permittee shall comply with the notification requirements in Subpart A and the specific requirements of Subpart OOOOa, including standards in 60.5398a. |
| **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 and 60.5415a(c). |
| **Recordkeeping:** The permittee shall comply with all applicable recordkeeping requirements in 40 CFR 60, Subpart A and Subpart OOOOa, including but not limited to 60.5415a(c) and 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. |

* 1. Enclosed Combustion Device (ECD)
1. VC1 Visible Emissions (Unit VC1)

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| **Requirement:** The permittee shall operate Unit VC1 such that no visible emissions are observed, except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours. Any emissions resulting from Unit VC1 downtime shall be submitted in accordance with 20.2.7 NMAC or counted toward the SSM emission limit, as applicable. |
| **Monitoring:** Annually, the permittee shall perform a Method 22 test to certify compliance with the visible emission requirement. The observation period shall be two hours. |
| **Recordkeeping:** The permittee shall record the results of Method 22 tests.  |
| **Reporting:** The permittee shall report in accordance with Section B110. |

1. VC1 Operations (Unit VC1)

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| **Requirement:** * + - 1. The permittee shall install, operate, and maintain Unit VC1 according to the manufacturer’s specifications.
			2. In the event that a leak or defect is detected, the permittee shall repair the leak or defect as soon as practicable, not to exceed thirty days, and in a manner than minimized emissions to the atmosphere.
 |
| **Monitoring:** The permittee shall monitor the following:* + - 1. The date, start time, and end time of any downtime and/or maintenance of the VC1.
			2. Continually, monitor the presence of Unit VC1 pilot flame using a thermocouple equipped with a continuous recorder and alarm or other equivalent device approved by the Department, to detect the presence of a flame.
 |
| **Recordkeeping:** * + - 1. The permittee shall record the name of the person conducting the inspection and the results of all monthly equipment inspections, contemporaneously noting any maintenance or repairs needed to bring the BTEX condensers (Units COND1-COND3) and/or Unit VC1 into compliance with permit conditions.
			2. The permittee shall record the date, start time, and end time of any downtime and/or maintenance of Unit VC1.
 |
| **Reporting:** The permittee shall report in accordance with Section B110. |

**PART B GENERAL CONDITIONS (Attached)**

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