

West Virginia Department of Environmental Protection
Austin Caperton
Cabinet Secretary

Permit to Operate



Pursuant to
Title V
of the Clean Air Act

Issued to:
EQM Gathering Opco, LLC
Janus Compressor Station
R30-01700158-2019

A handwritten signature in blue ink that reads "Laura M. Crowder".

Laura M. Crowder

Director, Division of Air Quality

*Issued: September 17, 2019 • Effective: October 1, 2019
Expiration: September 17, 2024 • Renewal Application Due: March 17, 2024*

Permit Number: **R30-01700158-2019**
Permittee: **EQM Gathering Opco, LLC**
Facility Name: **Janus Compressor Station**
Permittee Mailing Address: **625 Liberty Avenue, Suite 1700, Pittsburgh, PA 15222**

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	West Union, Doddridge County, West Virginia
Facility Mailing Address:	Same as above
Telephone Number:	(412) 395-3654
Type of Business Entity:	LLC
Facility Description:	Natural Gas Gathering Facility
SIC Codes:	Primary 1311; Secondary NA; Tertiary NA
UTM Coordinates:	516.776 km Easting • 4345.401 km Northing • Zone 17

Permit Writer: Frederick Tipane

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

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1.0 Emission Units and Active R13, R14, and R19 Permits

1.1 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
ENG-001	ENG-001	Caterpillar G3616 4SLB Compressor Engine	2016	5,350 bhp	Oxidation Catalyst (C1)
ENG-002	ENG-002	Caterpillar G3616 4SLB Compressor Engine	2016	5,350 bhp	Oxidation Catalyst (C2)
ENG-003	ENG-003	Caterpillar G3616 4SLB Compressor Engine	2017	5,350 bhp	Oxidation Catalyst (C3)
ENG-004	ENG-004	Caterpillar G3616 4SLB Compressor Engine	2017	5,350 bhp	Oxidation Catalyst (C4)
DEHY-001	FLARE-001	Glycol Dehydration Unit Flash Tank and Still Column	2016	152 MMscf/day	FLARE-001
RB-001	RB-001	Glycol Dehydration Unit Reboiler	2016	2.31 MMBtu/hr	None
DEHY-002	FLARE-002	Glycol Dehydration Unit Flash Tank and Still Column	2017	152 MMscf/day	FLARE-002
RB-002	RB-002	Glycol Dehydration Unit Reboiler	2017	2.31 MMBtu/hr	None
T-001	FLARE-003	Produced Fluids Vessel T-8110	2016	210 BBL	FLARE-003
T-002	FLARE-003	Produced Fluids Vessel T-8120	2016	210 BBL	FLARE-003
L1	L1	Liquid Loading	2016	420,000 gal/yr	None
HTR-1	HTR-1	Fuel Gas Heater	2016	1.15 MMBtu/hr	None
HTR-2	HTR-2	Fuel Gas Heater	2016	0.77 MMBtu/hr	None
HTR-3	HTR-3	#1 Suction Condensate Heater	2016	6 MBtu/hr	None
HTR-4	HTR-4	#2 Suction Condensate Heater	2016	6 MBtu/hr	None
EG-001	EG-001	Capstone C200 Microturbine	2016	200 KW	None
EG-002	EG-002	Capstone C200 Microturbine	2016	200 KW	None
EG-003	EG-003	Capstone C200 Microturbine	2016	200 KW	None
EG-004	EG-004	Capstone C200 Microturbine	2016	200 KW	None
EG-005	EG-005	Capstone C200 Microturbine	2016	200 KW	None
T-003	T-003	Engine Lube Oil Tank	2016	2,000 gallons	None
T-004	T-004	Compressor Lube Oil Tank	2016	2,000 gallons	None
T-005	T-005	New MEG Storage Tank	2016	2,000 gallons	None
T-006	T-006	Used MEG Storage Tank	2016	2,000 gallons	None
T-007	T-007	Used Oil Storage Tank	2016	4,200 gallons	None
T-008	T-008	Methanol Storage Tank	2016	2,000 gallons	None

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
T-009	T-009	Engine Oil Storage Tank	2016	300 gallons	None
T-010	T-010	Engine Oil Storage Tank	2016	300 gallons	None
T-011	T-011	Engine Oil Storage Tank	2016	300 gallons	None
T-012	T-012	Engine Oil Storage Tank	2016	300 gallons	None
T-013	T-013	Compressor Oil Storage Tank	2016	300 gallons	None
T-014	T-014	Compressor Oil Storage Tank	2016	300 gallons	None
T-015	T-015	Compressor Oil Storage Tank	2016	300 gallons	None
T-016	T-016	Compressor Oil Storage Tank	2016	300 gallons	None
T-023	T-023	New TEG Storage Tank	2016	2,000 gallons	None
T-024	T-024	Used TEG Storage Tank	2016	2,000 gallons	None

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-3269B	August 21, 2018

2.0 General Conditions

2.1. Definitions

- 2.1.1. All references to the "West Virginia Air Pollution Control Act" or the "Air Pollution Control Act" mean those provisions contained in W.Va. Code §§ 22-5-1 to 22-5-18.
- 2.1.2. The "Clean Air Act" means those provisions contained in 42 U.S.C. §§ 7401 to 7671q, and regulations promulgated thereunder.
- 2.1.3. "Secretary" means the Secretary of the Department of Environmental Protection or such other person to whom the Secretary has delegated authority or duties pursuant to W.Va. Code §§ 22-1-6 or 22-1-8 (45CSR§30-2.12.). The Director of the Division of Air Quality is the Secretary's designated representative for the purposes of this permit.
- 2.1.4. Unless otherwise specified in a permit condition or underlying rule or regulation, all references to a "rolling yearly total" shall mean the sum of the monthly data, values or parameters being measured, monitored, or recorded, at any given time for the previous twelve (12) consecutive calendar months.

2.2. Acronyms

CAAA	Clean Air Act Amendments	NSPS	New Source Performance Standards
CBI	Confidential Business Information	PM	Particulate Matter
CEM	Continuous Emission Monitor	PM₁₀	Particulate Matter less than 10µm in diameter
CES	Certified Emission Statement	pph	Pounds per Hour
C.F.R. or CFR	Code of Federal Regulations	ppm	Parts per Million
CO	Carbon Monoxide	PSD	Prevention of Significant Deterioration
C.S.R. or CSR	Codes of State Rules	psi	Pounds per Square Inch
DAQ	Division of Air Quality	SIC	Standard Industrial Classification
DEP	Department of Environmental Protection	SIP	State Implementation Plan
FOIA	Freedom of Information Act	SO₂	Sulfur Dioxide
HAP	Hazardous Air Pollutant	TAP	Toxic Air Pollutant
HON	Hazardous Organic NESHAP	TPY	Tons per Year
HP	Horsepower	TRS	Total Reduced Sulfur
lbs/hr or lb/hr	Pounds per Hour	TSP	Total Suspended Particulate
LDAR	Leak Detection and Repair	USEPA	United States Environmental Protection Agency
m	Thousand	UTM	Universal Transverse Mercator
MACT	Maximum Achievable Control Technology	VEE	Visual Emissions Evaluation
mm	Million	VOC	Volatile Organic Compounds
mmBtu/hr	Million British Thermal Units per Hour		
mmft³/hr or mmcf/hr	Million Cubic Feet Burned per Hour		
NA or N/A	Not Applicable		
NAAQS	National Ambient Air Quality Standards		
NESHAPS	National Emissions Standards for Hazardous Air Pollutants		
NO_x	Nitrogen Oxides		

2.3. Permit Expiration and Renewal

- 2.3.1. Permit duration. This permit is issued for a fixed term of five (5) years and shall expire on the date specified on the cover of this permit, except as provided in 45CSR§30-6.3.b. and 45CSR§30-6.3.c.
[45CSR§30-5.1.b.]
- 2.3.2. A permit renewal application is timely if it is submitted at least six (6) months prior to the date of permit expiration.
[45CSR§30-4.1.a.3.]
- 2.3.3. Permit expiration terminates the source's right to operate unless a timely and complete renewal application has been submitted consistent with 45CSR§30-6.2. and 45CSR§30-4.1.a.3.
[45CSR§30-6.3.b.]
- 2.3.4. If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.
[45CSR§30-6.3.c.]

2.4. Permit Actions

- 2.4.1. This permit may be modified, revoked, reopened and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
[45CSR§30-5.1.f.3.]

2.5. Reopening for Cause

- 2.5.1. This permit shall be reopened and revised under any of the following circumstances:
 - a. Additional applicable requirements under the Clean Air Act or the Secretary's legislative rules become applicable to a major source with a remaining permit term of three (3) or more years. Such a reopening shall be completed not later than eighteen (18) months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 45CSR§§30-6.6.a.1.A. or B.
 - b. Additional requirements (including excess emissions requirements) become applicable to an affected source under Title IV of the Clean Air Act (Acid Deposition Control) or other legislative rules of the Secretary. Upon approval by U.S. EPA, excess emissions offset plans shall be incorporated into the permit.
 - c. The Secretary or U.S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
 - d. The Secretary or U.S. EPA determines that the permit must be revised or revoked and reissued to assure compliance with the applicable requirements.

[45CSR§30-6.6.a.]

2.6. Administrative Permit Amendments

- 2.6.1. The permittee may request an administrative permit amendment as defined in and according to the procedures specified in 45CSR§30-6.4.
[45CSR§30-6.4.]

2.7. Minor Permit Modifications

- 2.7.1. The permittee may request a minor permit modification as defined in and according to the procedures specified in 45CSR§30-6.5.a.
[45CSR§30-6.5.a.]

2.8. Significant Permit Modification

- 2.8.1. The permittee may request a significant permit modification, in accordance with 45CSR§30-6.5.b., for permit modifications that do not qualify for minor permit modifications or as administrative amendments.
[45CSR§30-6.5.b.]

2.9. Emissions Trading

- 2.9.1. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit and that are in accordance with all applicable requirements.
[45CSR§30-5.1.h.]

2.10. Off-Permit Changes

- 2.10.1. Except as provided below, a facility may make any change in its operations or emissions that is not addressed nor prohibited in its permit and which is not considered to be construction nor modification under any rule promulgated by the Secretary without obtaining an amendment or modification of its permit. Such changes shall be subject to the following requirements and restrictions:
- a. The change must meet all applicable requirements and may not violate any existing permit term or condition.
 - b. The permittee must provide a written notice of the change to the Secretary and to U.S. EPA within two (2) business days following the date of the change. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted, and any applicable requirement that would apply as a result of the change.
 - c. The change shall not qualify for the permit shield.
 - d. The permittee shall keep records describing all changes made at the source that result in emissions of regulated air pollutants, but not otherwise regulated under the permit, and the emissions resulting from those changes.
 - e. No permittee may make any change subject to any requirement under Title IV of the Clean Air Act (Acid Deposition Control) pursuant to the provisions of 45CSR§30-5.9.

- f. No permittee may make any changes which would require preconstruction review under any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) pursuant to the provisions of 45CSR§30-5.9.

[45CSR§30-5.9.]

2.11. Operational Flexibility

- 2.11.1. The permittee may make changes within the facility as provided by § 502(b)(10) of the Clean Air Act. Such operational flexibility shall be provided in the permit in conformance with the permit application and applicable requirements. No such changes shall be a modification under any rule or any provision of Title I of the Clean Air Act (including 45CSR14 and 45CSR19) promulgated by the Secretary in accordance with Title I of the Clean Air Act and the change shall not result in a level of emissions exceeding the emissions allowable under the permit.

[45CSR§30-5.8]

- 2.11.2. Before making a change under 45CSR§30-5.8., the permittee shall provide advance written notice to the Secretary and to U.S. EPA, describing the change to be made, the date on which the change will occur, any changes in emissions, and any permit terms and conditions that are affected. The permittee shall thereafter maintain a copy of the notice with the permit, and the Secretary shall place a copy with the permit in the public file. The written notice shall be provided to the Secretary and U.S. EPA at least seven (7) days prior to the date that the change is to be made, except that this period may be shortened or eliminated as necessary for a change that must be implemented more quickly to address unanticipated conditions posing a significant health, safety, or environmental hazard. If less than seven (7) days notice is provided because of a need to respond more quickly to such unanticipated conditions, the permittee shall provide notice to the Secretary and U.S. EPA as soon as possible after learning of the need to make the change.

[45CSR§30-5.8.a.]

- 2.11.3. The permit shield shall not apply to changes made under 45CSR§30-5.8., except those provided for in 45CSR§30-5.8.d. However, the protection of the permit shield will continue to apply to operations and emissions that are not affected by the change, provided that the permittee complies with the terms and conditions of the permit applicable to such operations and emissions. The permit shield may be reinstated for emissions and operations affected by the change:

- a. If subsequent changes cause the facility's operations and emissions to revert to those authorized in the permit and the permittee resumes compliance with the terms and conditions of the permit, or
- b. If the permittee obtains final approval of a significant modification to the permit to incorporate the change in the permit.

[45CSR§30-5.8.c.]

- 2.11.4. "Section 502(b)(10) changes" are changes that contravene an express permit term. Such changes do not include changes that would violate applicable requirements or contravene enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

[45CSR§30-2.39]

2.12. Reasonably Anticipated Operating Scenarios

- 2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.
- a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.
 - b. The permit shield shall extend to all terms and conditions under each such operating scenario; and
 - c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.

[45CSR§30-5.1.i.]

2.13. Duty to Comply

- 2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

[45CSR§30-5.1.f.1.]

2.14. Inspection and Entry

- 2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:
- a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
 - d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.

[45CSR§30-5.3.b.]

2.15. Schedule of Compliance

- 2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:
- a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and
 - b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.

[45CSR§30-5.3.d.]

2.16. Need to Halt or Reduce Activity not a Defense

- 2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.

[45CSR§30-5.1.f.2.]

2.17. Emergency

- 2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

[45CSR§30-5.7.a.]

- 2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.

[45CSR§30-5.7.b.]

- 2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The permitted facility was at the time being properly operated;
- c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

- d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

[45CSR§30-5.7.c.]

- 2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.

[45CSR§30-5.7.d.]

- 2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.

[45CSR§30-5.7.e.]

2.18. Federally-Enforceable Requirements

- 2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.

[45CSR§30-5.2.a.]

- 2.18.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-enforceable" requirements upon SIP approval by the USEPA.

2.19. Duty to Provide Information

- 2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 CFR Part 2.

[45CSR§30-5.1.f.5.]

2.20. Duty to Supplement and Correct Information

- 2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.

[45CSR§30-4.2.]

2.21. Permit Shield

2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.

[45CSR§30-5.6.a.]

2.21.2. Nothing in this permit shall alter or affect the following:

- a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or
- b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.
- c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

2.22. Credible Evidence

2.22.1. Nothing in this permit shall alter or affect the ability of any person to establish compliance with, or a violation of, any applicable requirement through the use of credible evidence to the extent authorized by law. Nothing in this permit shall be construed to waive any defenses otherwise available to the permittee including but not limited to any challenge to the credible evidence rule in the context of any future proceeding.

[45CSR§30-5.3.e.3.B. and 45CSR38]

2.23. Severability

2.23.1. The provisions of this permit are severable. If any provision of this permit, or the application of any provision of this permit to any circumstance is held invalid by a court of competent jurisdiction, the remaining permit terms and conditions or their application to other circumstances shall remain in full force and effect.

[45CSR§30-5.1.e.]

2.24. Property Rights

2.24.1. This permit does not convey any property rights of any sort or any exclusive privilege.

[45CSR§30-5.1.f.4]

2.25. Acid Deposition Control

2.25.1. Emissions shall not exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act (Acid Deposition Control) or rules of the Secretary promulgated thereunder.

- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.

- b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.
- c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

- 2.25.2. Where applicable requirements of the Clean Air Act are more stringent than any applicable requirement of regulations promulgated under Title IV of the Clean Air Act (Acid Deposition Control), both provisions shall be incorporated into the permit and shall be enforceable by the Secretary and U. S. EPA.

[45CSR§30-5.1.a.2.]

3.0 Facility-Wide Requirements

3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1.
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 CFR § 61.145, 40 CFR § 61.148, and 40 CFR § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 CFR § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.
[40 CFR §61.145(b) and 45CSR34]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.
[45CSR§4-3.1 State-Enforceable only.]
- 3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.
[45CSR§11-5.2]
- 3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.
[W.Va. Code § 22-5-4(a)(14)]
- 3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 CFR §§ 82.154 and 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR § 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR § 82.161.

[40 CFR 82, Subpart F]

- 3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 CFR § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 CFR § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 CFR Part 70 or 71.
[40 CFR 68]
- 3.1.9. No person shall cause, suffer, allow or permit fugitive particulate matter to be discharged beyond the boundary lines of the property on which the discharge originates or at any public or residential location, which causes or contributes to statutory air pollution.
[45CSR§17-3.1; State Enforceable Only]
- 3.1.10. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.1 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13, R13-3269 §§4.1.4. and 5.1.4.]

3.2. Monitoring Requirements

- 3.2.1. *Reserved*

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:
- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 CFR Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
 - b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
 - c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved

test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

- d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
 1. The permit or rule evaluated, with the citation number and language.
 2. The result of the test for each permit or rule condition.
 3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code §§ 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:
 - a. The date, place as defined in this permit and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of the analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A.; R13-3269 §§4.4.1. and 5.4.1.]

- 3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.

[45CSR§30-5.1.c.2.B.; R13-3269 §3.4.1.]

- 3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.
[45CSR§30-5.1.c. State-Enforceable only.]
- 3.4.4. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.1, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[45CSR13, R13-3269 §§4.4.2. and 5.4.2.]
- 3.4.5. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.1, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:
- a. The equipment involved.
 - b. Steps taken to minimize emissions during the event.
 - c. The duration of the event.
 - d. The estimated increase in emissions during the event.

For each such case associated with an equipment malfunction, the additional information shall also be recorded:

- e. The cause of the malfunction.
- f. Steps taken to correct the malfunction.
- g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[45CSR13, R13-3269 §§4.4.3. and 5.4.3.]

3.5. Reporting Requirements

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
[45CSR§§30-4.4. and 5.1.c.3.D.]
- 3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.
[45CSR§30-5.1.c.3.E.]
- 3.5.3. Except for the electronic submittal of the annual compliance certification and semi-annual monitoring reports to the DAQ and USEPA as required in 3.5.5 and 3.5.6 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class

or by private carrier with postage prepaid to the address(es), or submitted in electronic format by e-mail as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

US EPA:

Section Chief
U. S. Environmental Protection Agency, Region III
Enforcement and Compliance Assurance Division
Air Section (3ED21)
1650 Arch Street
Philadelphia, PA 19103-2029

DAQ Compliance and Enforcement¹:

DEPAirQualityReports@wv.gov

¹For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, Notice of Compliance Status reports, Initial Notifications, etc.

3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.
[45CSR§30-8.]

3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification. The annual certification shall be submitted in electronic format by e-mail to the following addresses:

DAQ:

DEPAirQualityReports@wv.gov

US EPA:

R3_APD_Permits@epa.gov

[45CSR§30-5.3.e.]

3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. The semi-annual monitoring reports shall be submitted in electronic format by e-mail to the following address:

DAQ:

DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.
2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.
3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.
4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.

[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.

[45CSR§30-4.3.h.1.B.]

3.6. Compliance Plan

3.6.1. NA

3.7. Permit Shield

3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.

- 3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.
- a. **45CSR21 - Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds.** The Janus Compressor Station is not located in Cabell, Kanawha, Putnam, Wayne, nor Wood counties.
 - b. **45CSR27 - To Prevent and Control the Emissions of Toxic Air Pollutants.** Natural gas is included as a petroleum product and contains less than 5% benzene by weight. 45CSR§27-2.4 exempts equipment “used in the production and distribution of petroleum products providing that such equipment does not produce or contact materials containing more than 5% benzene by weight.”
 - c. **40 C.F.R 60 Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.** This subpart applies to steam generating units greater than 10 MMBtu/hr and less than 100 MMBtu/hr. Janus Compressor Station does not have any steam generating units greater than 10 MMBtu/hr.
 - d. **40 CFR 60 Subpart GG - Standards of Performance for Stationary Gas Turbines.** There are no turbines at the Janus Compressor Station equal to or greater than 10 MMBtu/hr.
 - e. **40 CFR 60 Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978.** All tanks at the Janus Compressor Station are below 40,000 gallons in capacity.
 - f. **40 CFR 60 Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984.** All tanks at the Janus Compressor Station are below 40,000 gallons in capacity.
 - g. **40 CFR 60 Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011.** Janus Compressor Station is not a “Natural Gas Processing Plant” as defined in §60.631.
 - h. **40 CFR 60 Subpart LLL - Standards of Performance for SO₂ Emissions From Onshore Natural Gas Processing for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011.** There are no sweetening units at the Janus Compressor Station.
 - i. **40 CFR 60 Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.** All engines at Janus Compressor Station are spark ignition engines.
 - j. **40 CFR 60 Subpart KKKK – Standards of Performance for Stationary Combustion Turbines.** There are no turbines at the Janus Compressor Station equal to or greater than 10 MMBtu/hr.
 - k. **40 CFR 60 Subparts OOOO - Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced After August 23, 2011, and on or before September 18, 2015.** The equipment at the Janus Station was installed after September 18, 2015. Therefore, 40 CFR 60 Subpart OOOO does not apply.

- l. **40 C.F.R 63 Subpart DDDDD - *National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.*** This MACT standard applies to industrial, commercial, and institutional boilers and process heaters at major sources of HAPs. Janus Compressor Station is not major for HAPS.

- m. **40 CFR 63 Subpart JJJJJ - *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources.*** All boilers at the Janus Compressor Station fire natural gas exclusively. Natural gas boilers are exempt from this subpart per 40 CFR §63.11195(e).

4.0 Engines [emission point ID(s): *ENG-001, ENG-002, ENG-003, ENG-004*]

4.1. Limitations and Standards

4.1.1. The following conditions and requirements are specific to the internal combustion engines with corresponding compressor identified as ENG-001, ENG-002, ENG-003, and ENG-004.

a. Emissions from each engine shall not exceed the following:

1. NO_x emissions from each engine shall not exceed 1.0 g/hp-hr or 82.0 ppmvd at 15 percent O₂. The mass rate of NO_x emissions from the engine shall not exceed 5.93 pounds per hour.
2. CO emissions from each engine shall not exceed 2.0 g/hp-hr or 270 ppmvd at 15 percent O₂. The mass rate of CO emissions from the engine shall not exceed 2.04 pounds per hour.
3. VOC emissions from each engine shall not exceed 0.7 g/hp-hr or 60 ppmvd at 15 percent O₂. Formaldehyde emissions are excluded from this VOC limit.
4. VOC emissions from each engine shall not exceed 3.93 pounds per hour.
5. Formaldehyde emissions from each engine shall not exceed 0.24 pounds per hour.

b. Each engine shall be equipped with an oxidation catalyst air pollution control device. The oxidation catalyst shall be installed, maintained, and operated as outlined in Condition 4.1.3.

c. Each engine shall be equipped with an air to fuel (AFR) controller. The AFR controller must be maintained and operated appropriately to ensure proper operation of the engine and control device to minimize emissions at all times.

d. The permittee shall install and maintain a non-resettable hour meter for each engine.

[45CSR13, R13-3269 §§4.1.1.a. - d.; 45CSR16; 40 CFR §60.4233(e), Table 1 to 40 CFR 60 Subpart JJJ, §60.4243(g)]

4.1.2. The permittee shall only operate engines ENG-001, ENG-002, ENG-003, and ENG-004 using the facility fuel gas.

[45CSR13, R13-3269 §4.1.2.]

4.1.3. Requirements of the Oxidization Catalysts (C1, C2, C3, & C4) for ENG-001, ENG-002, ENG-003, and ENG-004.

a. The permittee shall monitor the temperature to the inlet of the catalyst and in accordance with manufacturer's specifications; a high temperature alarm shall shut off the engine before thermal deactivation of the catalyst occurs. If the engine shuts off due to high temperature, the permittee shall also check for thermal deactivation of the catalyst before normal operations are resumed.

[45CSR13, R13-3269 §4.1.3.]

4.1.4. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.
[45CSR16; 40 CFR §60.4234]

4.1.5. If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in §60.4233(e), you must demonstrate compliance according to the method specified below.

- (1) Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in §60.4233(e) and according to the requirements specified in §60.4244, as applicable, and according to 40 CFR §60.4243(b)(2)(ii).

[45CSR16; 40 CFR §60.4243(b)(2)]

4.1.6. The compressor engines ENG-001, ENG-002, ENG-003, and ENG-004 must meet the requirements of 40 CFR Part 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart JJJJ.
[45CSR34; 40 CFR §63.6590(c)(1)]

4.2. Monitoring Requirements

4.2.1. The permittee shall monitor the catalyst inlet temperature for each engine (ENG-001, ENG-002, ENG-003, & ENG-004). The permittee shall record all instances that the engine operated with an inlet temperature above 1,350 °F or the maximum operating temperature of catalyst, which shall include the date, time, duration of the event, root cause of event and corrective action taken. Such records shall be maintained in accordance with Condition 3.4.2.
[45CSR13, R13-3269 §4.2.1.]

4.3. Testing Requirements

4.3.1. The permittee must conduct initial performance testing for each engine within 180 days after initial start-up and thereafter every 8,760 hours of engine operation or once every three years, whichever comes first, to demonstrate compliance with the emission limits of items a.1. through a.5. of Conditions 4.1.1. During such testing, the engine shall be operated at 90% of maximum load or highest achievable load and measure and record the catalyst inlet temperature and pressure drop across the catalyst for each test run. Such testing shall be conducted in accordance with the applicable procedures in 40 CFR §60.4244 (Condition 4.3.2.) and Condition 3.3.1. Records of such testing shall be maintained in accordance with Condition 3.4.2.
[45CSR13, R13-3269 §4.3.1.; 45CSR16; 40 CFR §60.4243(b)(2)(ii)]

4.3.2. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs (a) through (f) of this section.

- a. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to 40 CFR 60 Subpart JJJJ.
- b. You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8 (c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.

- c. You must conduct three separate test runs for each performance test required in this section, as specified in §60.8 (f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.
- d. To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 1 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr} \quad (Eq. 1)$$

Where:

ER = Emission rate of NO_x in g/HP-hr.

C_d = Measured NO_x concentration in parts per million by volume (ppmv).

1.912 × 10⁻³ = Conversion constant for ppm NO_x to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

- e. To determine compliance with the CO mass per unit output emission limitation, convert the concentration of CO in the engine exhaust using Equation 2 of this section:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr} \quad (Eq. 2)$$

Where:

ER = Emission rate of CO in g/HP-hr.

C_d = Measured CO concentration in ppmv.

1.164 × 10⁻³ = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

- f. For purposes of 40 CFR 60 Subpart JJJJ, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output

emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr} \quad (Eq. 3)$$

Where:

ER = Emission rate of VOC in g/HP-hr.

C_d = VOC concentration measured as propane in ppmv.

1.833×10^{-3} = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

- g. If the owner/operator chooses to measure VOC emissions using either Method 18 of 40 CFR Part 60, appendix A, or Method 320 of 40 CFR Part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of this section. The corrected VOC concentration can then be placed on a propane basis using Equation 6 of this section.

$$RF_i = \frac{C_{Mi}}{C_{Ai}} \quad (Eq. 4)$$

Where:

RF_i = Response factor of compound i when measured with EPA Method 25A.

C_{Mi} = Measured concentration of compound i in ppmv as carbon.

C_{Ai} = True concentration of compound i in ppmv as carbon.

$$C_{icorr} = RF_i \times C_{imeas} \quad (Eq. 5)$$

Where:

C_{icorr} = Concentration of compound i corrected to the value that would have been measured by EPA Method 25A, ppmv as carbon.

C_{imeas} = Concentration of compound i measured by EPA Method 320, ppmv as carbon.

$$C_{peq} = 0.6098 \times C_{icorr} \quad (Eq. 6)$$

Where:

C_{Peq} = Concentration of compound i in mg of propane equivalent per DSCM.

[45CSR13, R13-3269 §4.3.1.; 45CSR16; 40 CFR §60.4244 and Table 2 to 40 CFR 60 Subpart JJJJ]

4.4. Recordkeeping Requirements

4.4.1. The permittee shall keep a maintenance plan and records of conducted maintenance for each engine (ENG-001, ENG-002, ENG-003, & ENG-004) and corresponding control device (oxidation catalyst C1, C2, C3, & C4).

[45CSR13, R13-3269 §4.4.4.; 45CSR16; 40 CFR §60.4243(b)(2)(ii)]

4.4.2. Owners and operators of all stationary SI ICE must keep records of the information below.

- a. All notifications submitted to comply with 40 CFR 60 Subpart JJJJ and all documentation supporting any notification.
- b. Maintenance conducted on the engine.
- c. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR §60.4243(a)(2), documentation that the engine meets the emission standards.

[45CSR16; 40 CFR §§60.4245(a)(1), (2), and (4)]

4.5. Reporting Requirements

4.5.1. Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in §60.4244 within 60 days after the test has been completed. Performance test reports using EPA Method 18, EPA Method 320, or ASTM D6348-03 (incorporated by reference—see 40 CFR 60.17) to measure VOC require reporting of all QA/QC data. For Method 18, report results from sections 8.4 and 11.1.1.4; for Method 320, report results from sections 8.6.2, 9.0, and 13.0; and for ASTM D6348-03 report results of all QA/QC procedures in Annexes 1-7.

[45CSR16; 40 CFR §60.4245(d)]

4.6. Compliance Plan

4.6.1. None.

5.0 Reciprocating Compressors [emission point ID(s): *ENG-001, ENG-002, ENG-003, ENG-004*]

5.1. Limitations and Standards

5.1.1. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. The provisions for exemption from compliance during periods of startup, shutdown and malfunctions provided for in 40 CFR 60.8(c) do not apply to 40 CFR 60 Subpart OOOOa.
[45CSR16; 40 CFR §60.5370a(b)]

5.1.2. You must reduce GHG (in the form of a limitation on emissions of methane) and VOC emissions by complying with the following standards for each reciprocating compressor affected facility.

a. You must replace the reciprocating compressor rod packing according to either paragraph a.1. or 2. of this section.

1. On or before the compressor has operated for 26,000 hours. The number of hours of operation must be continuously monitored beginning upon initial startup of your reciprocating compressor affected facility, or the date of the most recent reciprocating compressor rod packing replacement, whichever is later.

2. Prior to 36 months from the date of the most recent rod packing replacement, or 36 months from the date of startup for a new reciprocating compressor for which the rod packing has not yet been replaced.

b. You must demonstrate continuous compliance with standards that apply to reciprocating compressor affected facilities as required by 40 CFR §60.5415a(c).

c. You must perform the reporting as required by 40 CFR §60.5420a(b)(1) and (4) and the recordkeeping as required by 40 CFR §60.5420a(c)(3), (6) through (9), and (17), as applicable.

[45CSR13, R13-3269 §4.1.1.e; 45CSR16; 40 CFR §§60.5385a(a)(1) or (2), (c) and (d).]

5.1.3. For each reciprocating compressor affected facility complying with 40 CR §60.5385a(a)(1) or (2), you must demonstrate continuous compliance according to the following.

a. You must continuously monitor the number of hours of operation for each reciprocating compressor affected facility or track the number of months since initial startup or the date of the most recent reciprocating compressor rod packing replacement, whichever is later.

b. You must submit the annual reports as required in 40 CFR §60.5420a(b)(1) and (4) and maintain records as required in 40 CFR §60.5420a(c)(3).

- c. You must replace the reciprocating compressor rod packing on or before the total number of hours of operation reaches 26,000 hours or the number of months since the most recent rod packing replacement reaches 36 months.

[45CSR16; 40 CFR §§60.5415a(c)(1), (2) and (3)]

5.2. Monitoring Requirements

- 5.2.1. Reserved.

5.3. Testing Requirements

- 5.3.1. Reserved.

5.4. Recordkeeping Requirements

- 5.4.1. For each reciprocating compressor affected facility, you must maintain the records identified as specified in 40 CFR §60.7(f) and in this permit condition. All records required by 40 CFR 60 Subpart OOOOa must be maintained either onsite or at the nearest local field office for at least 5 years. Any records required to be maintained by 40 CFR 60 Subpart OOOOa that are submitted electronically via the EPA's CDX may be maintained in electronic format.
 - a. Records of the cumulative number of hours of operation or number of months since initial startup or the previous replacement of the reciprocating compressor rod packing, whichever is later. Alternatively, a statement that emissions from the rod packing are being routed to a process through a closed vent system under negative pressure.
 - b. Records of the date and time of each reciprocating compressor rod packing replacement, or date of installation of a rod packing emissions collection system and closed vent system as specified in 40 CFR §60.5385a(a)(3).
 - c. Records of deviations in cases where the reciprocating compressor was not operated in compliance with the requirements specified in §60.5385a.

[45CSR13, R13-3269 §4.4.5.; 45CSR16; 40 CFR §§60.5420a(c) and (c)(3)]

5.5. Reporting Requirements

- 5.5.1. The permittee shall submit to the Administrator an annual report with the reporting period beginning on August 2 and ending on August 1 with the report due to be submitted by October 31 via CEDRI (<https://cdx.epa.gov>). The permittee may include other facilities in this submission. This report shall contain the records of number of hours operated of each compressor from the previous rod packing replacement.

Such records of such submittal shall be maintained in accordance with Condition 3.4.2. At the minimum, these reports shall contain the following information:

- a. The company name, facility site name associated with the affected facility and address of the affected facility. If an address is not available for the site, include a description of the site location and provide

the latitude and longitude coordinates of the site in decimal degrees to an accuracy and precision of five (5) decimals of a degree using the North American Datum of 1983.

- b. An identification of each affected facility being included in the annual report.
- c. Beginning and ending dates of the reporting period.
- d. A certification by a certifying official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- e. The cumulative number of hours of operation or the number of months since initial startup or since the previous reciprocating compressor rod packing replacement, whichever is later.
- f. Records of deviations specified in condition 5.4.1.c. that occurred during the reporting period.

[45CSR13, R13-3269 §4.5.1.; 45CSR16; 40 CFR §§60.5420(b)(1), (b)(4) and (b)(11)]

5.6. Compliance Plan

5.6.1. NA

6.0 Microturbines and Heaters [emission point ID(s):EG-001 - EG-005 and HTR-1, HTR-2, HTR-3, HTR-4]

6.1. Limitations and Standards

6.1.1. The Fuel Gas Heater, identified as HTR-1 and HTR-2, shall meet the following requirements:

- a. The MDHI of the HTR-1 and HTR-2 shall not exceed 1.15 MMBtu/hr and 0.77 MMBtu/hr, respectively and the units shall only be fired by fuel gas;
- b. The maximum emissions from the Fuel Gas Heaters combustion exhaust shall not exceed the limits given in the following table;

Fuel Gas Heaters Emission Limits				
	HTR-1		HTR-2	
Pollutant	PPH	TPY	PPH	TPY
CO	0.08	0.35	0.05	0.23
NO_x	0.09	0.41	0.06	0.28

- c. Visible emissions from the emission points HTR-1 and HTR-2 shall not exceed 10% opacity on a 6-minute block average. Compliance with this requirement is satisfied by complying with the fuel type restriction in Condition 6.1.1.a

[45CSR13, R13-3269 §6.1.1.; 45CSR§2-3.1.]

6.1.2. The Microturbines, identified as EG-001 through EG-005, shall meet the following requirements:

- a. Each individual unit shall be a Capstone C200 NG 200kWe (output) Microturbine, shall not exceed a rated MDHI of 2.28 MMBtu/hr (based on a HHV of 1,226 Btu/scf), and shall only be fired by fuel gas;
- b. The maximum emissions from each individual Microturbine shall not exceed the limits given in the following table:

Pollutant	PPH	TPY
CO	0.22	0.96
NO_x	0.08	0.35

[45CSR13, R13-3269 §6.1.2.]

6.1.3. Visible emissions from the emission points HTR-3 and HTR-4 shall not exceed 10% opacity on a 6-minute block average.

[45CSR§2-3.1.]

6.2. Monitoring Requirements

- 6.2.1. At such reasonable times as the Secretary may designate, the permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with the condition 6.1.3. Method 9 shall be conducted in accordance with 40 CFR 60 Appendix A
[45CSR§30-5.1.c.]

6.3. Testing Requirements

- 6.3.1. Reserved.

6.4. Recordkeeping Requirements

- 6.4.1. To demonstrate compliance with condition 6.1.2., the permittee shall maintain records of the amount of natural gas consumed in each microturbine generator and the hours of operation.
[45CSR§30-5.1.c.]

6.5. Reporting Requirements

- 6.5.1. Reserved.

6.6. Compliance Plan

- 6.6.1. NA

7.0 Dehydration Units, Reboilers [emission point ID(s): *FLARE-001, FLARE-002, RB-001, RB-002*]

7.1. Limitations and Standards

- 7.1.1. The limitations set forth in this condition are hereby established to ensure that the permittee operates and maintains the two glycol dehydration units (affected sources) with associated control device(s) that limit hazardous air pollutant emissions to below the major source threshold value of HAPs as defined in 40 CFR §63.761 (Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities) as follows:
- a. The maximum amount of wet natural gas processed to the dehydration unit shall not exceed 152 MMscf per day. Compliance with this limit shall be determined using a 12-month rolling total.
 - b. The glycol circulation rate for each dehydration unit shall not exceed 18.8 gallon per minute.
 - c. The permittee may have more than one glycol pump piped into the unit, with only one pump operating at any given time.
 - d. The flowrate of stripping gas in each reboiler vessel shall not exceed 40 standard cubic feet per minute.
 - e. The effluent generated by the flash tank of the dehydration unit shall be routed through a closed vent system to either the burner of the reboiler as the primary fuel source or a control device at all times while the dehydration unit is in operation.
 - f. The effluent generated by each still vent shall be routed through a closed vent system to the corresponding control device at all times while the dehydration unit is in operation.
 - g. The control devices shall be operated and maintained in accordance with Condition 7.1.2.
 - h. Each reboiler shall be operated and maintained in accordance with Condition 7.1.3.
 - i. The closed vent system as required in this condition shall meet the following:
 1. The system shall be constructed of hard piping.
 2. Each by-pass device valve that could divert the effluent stream from the control device or process to the atmosphere shall be properly installed, calibrated, maintained, and operated at all times when the corresponding dehydration unit is in operation. This does not apply to pressure relief devices (PRDs). Such systems shall record the date and time the bypass system operates and vents effluent to atmosphere.
 3. The system shall be constructed and maintained free of leaks.
 4. Compliance with the closed vent system requirements shall be demonstrated through Condition 9.1.1. of this permit.

[45CSR13, R13-3269 §5.1.1.]

- 7.1.2. The permittee shall operate and maintain the corresponding control device for each dehydration unit in accordance with the following emission limitations and operating parameters.
- a. Emissions of VOC from each control device shall not exceed 1.55 pounds per hour. Annual VOC emissions from each control device shall not exceed 6.80 tons per year.
 - b. Total hazardous air pollutants (HAPs) from each control device shall not exceed 0.68 pounds per hour. Annual HAP emissions from each dehydration unit shall not exceed 2.96 tons per year. Actual average benzene emissions shall not exceed one ton per year. Compliance demonstrations of the average benzene emissions from each corresponding control shall include benzene emissions vented through the by-pass device valve.
 - c. Compliance determination with the emission limits in items a & b of this condition shall be made by using GYLCALC™ 3.0 or higher, ProMax™, or AspenTech HYSYS™ using actual operating data recorded during the previous 12-month operating period.
 - d. Particulate matter emissions from each control device shall not exceed 0.70 pounds per hour. Compliance with this limit is satisfied by complying with requirements of Condition 7.1.2.f. *(Compliance with these streamlined particulate matter lb/hr emission limits will ensure compliance with the particulate matter allowable limits of 45CSR§6-4.1.)*
 - e. The effluent routed to each control device shall not contain hydrogen sulfide greater than 50 grains per 100 cubic feet of gas. Compliance with this limit is satisfied by limiting the hydrogen sulfide (H₂S) loading of the incoming natural gas to the facility to no greater than 10 grains of H₂S per 100 cubic feet of natural gas.
 - f. The permittee shall operate and maintain each control device in a manner to achieve, at the minimum, 98% destruction efficiency for VOCs and volatile HAPs. Such operation of the control device shall constitute the following:
 1. Discharge point of each control device shall not exhibit any visible emissions, except for periods not to exceed a total of one minute during a 15-minute consecutive interval.
 2. The minimum temperature of the combustion zone of each control device shall be no less than 1,400 degrees Fahrenheit (°F) when the dehydration unit is operating.
 3. The actual residence time for each control device shall not be less than 0.85 seconds.
 - g. The permittee shall install, operate and maintain a system that continuously measures the temperature of the combustion zone of each control device with a mechanism that prohibits operation of the dehydration unit whenever the temperature of the combustion zone is less than the minimum temperature stated in Condition 7.1.2.f.2. for the respective control device. The temperature measuring device must have a minimum accuracy of ± 4.5 degrees Fahrenheit.

[45CSR13, R13-3269 §5.1.2.; 45CSR§6-4.1.; 45CSR§10-5.1.; 45CSR34; 40 CFR §63.764(e)(1)(ii)]

- 7.1.3. The permittee shall operate and maintain the corresponding reboiler for each dehydration unit in accordance with the following emission limitations and operating parameters.

- a. Visible emissions from each reboiler stack (Emission Points RB-001 & RB-002 shall not exceed 10% opacity on a 6-minute block average. Compliance with this requirement is satisfied by complying with the fuel type restriction in Condition 7.1.3.c.
- b. Emissions of VOC from each reboiler shall not exceed 1.20 pounds per hour. Annual VOC emissions from each reboiler shall not exceed 5.26 tons per year.
- c. The reboiler shall only be fueled with flash gas from the flash tank, facility's fuel gas, or mixture of the two fuels.

[45CSR13, R13-3269 §5.1.3.; 45CSR§2-3.1.]

7.1.4. The flares (FLARE-001 and FLARE-002) are subject to 45CSR6. The requirements of 45CSR6 include but are not limited to the following:

- a. No person shall cause, suffer, allow or permit particulate matter to be discharged from any incinerator into the open air in excess of the quantity determined by use of the following formula:

$$\text{Emissions (lb/hr)} = F \times \text{Incinerator Capacity (tons/hr)}$$

Where, the factor, F, is 5.43 for an incinerator with a capacity of less than 15,000 lbs/hr. The incinerator capacity is 0.14 tons/hr. Therefore, the allowable emissions are 0.76 lb/hr for each flare.

Note: This limit for each flare will be streamlined with the particulate matter limits in condition 7.1.2.d.

- b. No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.
- c. The provisions of paragraph b. shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up.
- d. No person shall cause or allow the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.
- e. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
- f. Due to unavoidable malfunction of equipment, emissions exceeding those provided for in this rule may be permitted by the Director for periods not to exceed five (5) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.

[45CSR§§6-4.1., 4.3. through 4.6, and 8.2)]

7.1.5. At all times the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and

maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
[45CSR34; 40 CFR §63.764(j)]

7.2. Monitoring Requirements

7.2.1. The permittee shall monitor and record the following parameters for the purpose of demonstrating compliance with Conditions 7.1.1., 7.1.2., and 7.1.3.:

- a. The throughput of wet natural gas processed through the dehydration unit on a monthly basis, days the dehydration unit operated, and annual natural gas flowrate.
- b. Determine actual annual average natural gas throughput (in terms of natural gas flowrate to the glycol dehydration unit per day) by converting the annual natural gas flowrate to a daily average by dividing the annual flowrate by the number of days per year the glycol dehydration unit processed natural gas.
- c. Determination of the actual average VOCs, total HAPs, and benzene emissions from each dehydration unit in accordance with Condition 7.1.2.c. at least one per calendar year. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled “Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions” (GRI-95/0368.1).
- d. Records of such monitoring shall be maintained in accordance with Condition 3.4.2.

[45CSR13, R13-3269 §5.2.1.; 45CSR34; 40 CFR §63.774(d)(1), §§63.772(b)(1)(i) and (b)(2)(i)]

7.2.2. For the purpose of demonstrating compliance with Condition 7.1.2.e., the permittee shall conduct gas sampling at a point that is representative of the incoming natural gas to the facility and analyzing the sample to determine the hydrogen sulfide content of the sample. At a minimum, such sampling and analysis shall be conducted once per calendar year. Records of such monitoring shall be maintained in accordance with Condition 3.4.2. of this permit.

[45CSR13, R13-3269 §5.2.2.; 45 CSR §10-8.3.a.]

7.2.3. For the purpose of demonstrating proper operation of each control device, the permittee shall conduct a visible emission observation using Section 11 of Method 22 for 15 minutes once every calendar quarter in which a corresponding dehydration unit operates. There must be at least 14 days in between observations.

If at the end of the observation and visible emission were observed for more than 1 minute, then the permittee shall follow manufacturer’s repair instructions, if available or best combustion engineering practice as outline in the unit inspection and maintenance plan. To return the flare to compliant operation, the permittee shall repeat the visible emission observation within 48 hours of observation that detected visible emissions for more than 1 minute. Records of such monitoring and repair activities shall be maintained in accordance with Condition 3.4.2.

[45CSR13, R13-3269 §5.2.3.]

7.3. Testing Requirements

7.3.1. Reserved.

7.4. Recordkeeping Requirements

- 7.4.1. The permittee shall record all instances that each by-pass device for either DEHY001 or DEHY002 allowed effluent to by-pass the respective control device. Records of such instances shall include at a minimum the date, time, duration, reason, and corrective action taken to resolve the necessity to by-pass the control device. Such records shall be maintained in accordance with Condition 3.4.2.
[45CSR13, R13-3269 §5.4.4.]
- 7.4.2. The permittee shall record all instances that either DEHY001 or DEHY002 shut down as a result of the interlock system as established in Condition 7.1.2.g. Records of such instances shall include at a minimum the date, time, duration, reason, and corrective action taken to resolve the necessity to by-pass the control device. Such records shall be maintained in accordance with Condition 3.4.2.
[45CSR13, R13-3269 §5.4.5.]

7.5. Reporting Requirements

- 7.5.1. The permittee shall notify the Director in accordance with Condition 3.5.1. within 24-hours after an unsuccessful attempt to restore the respective control device (FLARE-001 or FLARE-002) to proper operating condition in accordance with Condition 7.1.2.f.
[45CSR13, R13-3269 §5.5.1.]

7.6. Compliance Plan

- 7.6.1. NA

8.0 Produced Fluids Tanks [emission point ID(s): FLARE-003]

8.1 Limitations and Standards

- 8.1.1. The Produced Liquid Storage Vessels, identified as T-001 and T-002, shall meet the following requirements:
- a. Total VOC emissions discharged to the atmosphere from each storage vessel shall not equal or exceed 6.0 tpy.
 - b. The effluent generated by each storage vessel shall be routed through a closed vent system to the control device identified as FLARE-003 at all times:
 - c. The control device FLARE-003 shall be operated and maintained in accordance with Condition 8.1.2.
 - d. The closed vent system as required in this condition shall meet the following:
 1. The system shall be constructed of hard piping.
 2. The system shall be constructed and maintained free of leaks.
 3. Compliance with the closed vent system requirements shall be demonstrated through Condition 9.1.1. of this permit.
 - e. The permittee shall comply with the following cover requirements for each storage vessel:
 1. The cover and all openings on the cover (e.g., access hatches, sampling ports, pressure relief valves and gauge wells) shall form a continuous impermeable barrier over the entire surface area of the liquid in the storage vessel.
 2. Each cover opening shall be secured in a closed, sealed position (e.g., covered by a gasketed lid or cap) whenever material is in the unit on which the cover is installed except during those times when it is necessary to use an opening as follows:
 - i. To add material to, or remove material from the unit (this includes openings necessary to equalize or balance the internal pressure of the vessel following changes in the level of the material in the unit);
 - ii. To inspect or sample the material in the unit;
 - iii. To inspect, maintain, repair, or replace equipment located inside the unit; or
 - iv. To vent liquids, gases, or fumes from the unit through a closed-vent system designed and operated in accordance with the requirements of this permit to a control device or to a process.
 3. Each storage vessel thief hatch shall be weighted and properly seated. The permittee shall select gasket material for the hatch based on composition of the fluid in the storage vessel and weather conditions.

- f. The permittee shall install, maintain, and continuously operate an interlock system that isolates these vessels from receiving liquids if the internal pressure of the vessels is at or above the design pressure of the vessels or above a set point that is below the pressure relief valve setting.

[45CSR13, R13-3269 §7.1.1.]

- 8.1.2. The permittee shall operate and maintain the control device FLARE-003 in accordance with the following emission limitations and operating parameters.
 - a. Emissions of VOC from the control device shall not exceed 2.60 pounds per hour. Annual VOC emissions from the control device shall not exceed 11.38 tons per year.
 - b. Total hazardous air pollutants (HAPs) from the control device shall not exceed 0.01 pounds per hour. Annual HAP emissions from the FLARE-003 shall not exceed 0.05 tons per year.
 - c. Compliance with the emission limits in items a & b of this condition shall be determined by using Bryan Research & Engineering ProMax, AspenTech HYSYS or other generally acceptable process simulator used to predict the VOC emissions using actual operating data recorded during the previous operating year. Such compliance determination shall include emissions generated from the storage vessels to include periods of planned maintenance and from fuel gas consumed by the control device.
 - d. Particulate matter emissions from the flare shall not exceed 0.70 pounds per hour. Compliance with this limit is satisfied by complying with requirements of Condition 8.1.2.f. (*Compliance with this streamlined particulate matter lb/hr emission limit will ensure compliance with the particulate matter allowable limits of 45CSR§6-4.1.*)
 - e. The effluent routed to each control device shall not contain hydrogen sulfide greater than 50 grains per 100 cubic feet of gas. Compliance with this limit is satisfied by limiting the hydrogen sulfide (H₂S) loading of the incoming natural gas to the facility to no greater than 10 grains of H₂S per 100 cubic feet of natural gas.
 - f. The permittee shall operate and maintain the control device FLARE-003 in a manner to achieve, at the minimum, 95% destruction efficiency for VOCs and volatile HAPs. Such operation of the control device shall constitute the following:
 - 1. Discharge point of enclosed combustion device and the buddy flare for the control device shall not exhibit any visible emissions, except for periods not to exceed a total of one minute during 15-minute consecutive interval.
 - 2. The permittee shall install, maintain, and continuously operate an interlock system that isolates the Vessels T-001 and T-002 and shut down the control device FLARE-003 at all times when the average temperature of the combustion zone for the enclosed ground flare portion of FLARE-003 drops below 1,400°F. The temperature measuring device of this system must have a minimum accuracy of ± 4.5 degrees Fahrenheit.
 - 3. The pilot flame for the buddy flare shall be lit at all times when either one of the storage vessels is in service. The fuel source for the pilot light shall be fuel gas generated by the facility.

[45CSR13, R13-3269 §7.1.2.; 45CSR§6-4.1.; 45CSR§10-5.1.]

- 8.1.3. Flare-003 is subject to 45CSR6. The requirements of 45CSR6 include but are not limited to the following
- a. No person shall cause, suffer, allow or permit particulate matter to be discharged from any incinerator into the open air in excess of the quantity determined by use of the following formula:

$$\text{Emissions (lb/hr)} = F \times \text{Incinerator Capacity (tons/hr)}$$

Where, the factor, F, is 5.43 for an incinerator with a capacity of less than 15,000 lbs/hr. The incinerator capacity is 0.43 tons/hr. Therefore, the allowable emissions are 2.33 lb/hr for the flare.

Note: This limit for the flare will be streamlined with the particulate matter limit in condition 8.1.2.d.

- b. No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.
- c. The provisions of paragraph b. shall not apply to smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up.
- d. No person shall cause or allow the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.
- e. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
- f. Due to unavoidable malfunction of equipment, emissions exceeding those provided for in this rule may be permitted by the Director for periods not to exceed five (5) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the malfunction. In cases of major equipment failure, additional time periods may be granted by the Director provided a corrective program has been submitted by the owner or operator and approved by the Director.

[45CSR§§6-4.1., 4.3. through 4.6, and 8.2)]

8.2. Monitoring Requirements

- 8.2.1. The permittee shall monitor and record the following parameters for demonstrating compliance with Conditions 8.1.1., and 8.1.2.:
- a. The amount of fluids off loaded from T-001 and T-002, and number of operating days where the facility was in operation, and the annual average throughput of produced liquids in terms of barrels per day.
 - b. The permittee shall record the date, time, and reason of the instance that the interlock system as required in Conditions 8.1.1. or 8.1.2. isolated vessels T-001 and T-002 and/or shut down control device FLARE-003.
 - c. Identify any periods there was no flame present for the pilot of the buddy flare when either storage vessel is operation.

- d. Measure and record the monthly amount of fuel gas consumed by the control device. The fuel gas consumed shall include fuel for the pilot lights, and burners.
- e. Monitor for visible emissions at least once per quarter from the control device FLARE-03 using Section 11 of EPA Method 22 of Appendix A of Part 60. Such observations must be separated by least 45 calendar days. The observation period shall be 15 minutes. If visible emissions are detected or smoking is occurring for a period greater than a total of one (1) minute during the observation, the permittee must take appropriate corrective actions to ensure the control device is returned to proper operation as soon as practicable after the event occurs. At the minimum, the permittee must perform the following procedures:
 1. Must check the air vent for obstruction(s). If an obstruction is observed, the permittee must clear the obstruction as soon as practicable.
 2. Must check for liquid reaching the control device.
 3. Must follow the manufacturer's written operating instructions, procedures and maintenance instructions or good air pollution control practices for minimizing emissions to restore the control device back to proper operation.
 4. Within two operating day after restoring the control device to proper operating conditions, the permittee must repeat the visible emission observation.

Records of such monitoring and corrective actions shall be maintained in accordance with Condition 3.4.2.

[45CSR13, R13-3269 §7.2.1.]

- 8.2.2. The permittee shall conduct the compliance demonstration as required in Condition 8.1.1.c. for each calendar year by no later than March 15th of the following year. Should the results of this demonstration indicate that the margin of compliance with the annual limit at or greater than eightieth percentile of the permitted limit, then the permittee shall sample and analyze the hydrocarbons that are in a liquid state separated at the slug catchers at the station. This sample must be taken and analyzed prior to the end of the calendar year. Such records shall be maintained in accordance with Condition 3.4.2.

[45CSR13, R13-3269 §7.2.2.]

- 8.2.3. For the purpose of demonstrating compliance with Condition 8.1.2.e., the permittee shall conduct gas sampling at a point that is representative of the incoming natural gas to the facility and analyzing the sample to determine the hydrogen sulfide content of the sample. At a minimum, such sampling and analysis shall be conducted once per calendar year. Records of such monitoring shall be maintained in accordance with Condition 3.4.2. of this permit.

[45CSR§30-5.1.c.]

8.3. Testing Requirements

- 8.3.1. Reserved.

8.4. Recordkeeping Requirements

- 8.4.1. Reserved.

8.5. Reporting Requirements

- 8.5.1. The permittee shall notify the Director in accordance with Condition 3.5.1. within 24-hours after an unsuccessful attempt to restore the control device FLARE-003 to proper operating control in accordance with Condition 8.2.1.e.
[45CSR13, R13-3269 §7.3.1.]

8.6. Compliance Plan

- 8.6.1. NA

9.0 Collection of Facility - Wide Fugitive Emissions and other Non-Fugitive Sources

9.1. Limitations and Standards

- 9.1.1. The permittee must reduce fugitive greenhouse gas and VOC emissions from the permitted facility by complying with the following requirements.
- a. The permittee shall develop and implement a monitoring plan in accordance with Condition 9.1.2.
 - b. For a modified collection of fugitive emission components (increase in compression capacity), the initial survey shall be conducted within 60 days of the modification (start-up of the increase in compression)
 - c. Subsequent monitoring surveys shall be conducted at least quarterly with at least 60 days between surveys.
 - d. Fugitive emissions are defined as: any visible emission from a fugitive emission component observed using optical gas imaging equipment or an instrument reading of 500 ppm or greater using Method 21
 - e. The permittee shall repair all detected fugitive emissions in accordance with the following:
 1. Within 30 calendar days after detection; or
 2. If the repair or replacement is technically infeasible, would require a vent blowdown, a compressor station shutdown, or unsafe to repair during operation of the unit, then the repair or replacement must be completed during the next scheduled compressor station shut-down, planned vent blowdown, or within 2 years, whichever is earlier.
 - f. Once the repair or replacement is completed, the identified component shall be resurveyed as soon as practicable, but no later than 30 days after being repaired, to ensure that there are no fugitive emissions.
 - g. For repairs completed after the monitoring survey, the permittee may resurvey the repaired component using either U.S. EPA Method 21, Alternative Screening Procedure of Method 21 or optical gas imaging.
 - h. When using Method 21 to resurvey a repair, the fugitive emissions component is repaired when the Method 21 instrument indicates a concentration of less than 500 ppm above the background or when no soap bubbles are observed when the Alternative Screening Procedure are used. The procedures outlined in 40 CFR §60.5397a(c)(8)(ii) must be followed when using Method 21. Use of the Alternative Screening Procedure must be conducted in accordance with the following:
 1. Components that do not have continuously moving parts, that do not have surface temperatures greater than the boiling point or less than the freezing point of the soap solution, that do not have open areas to the atmosphere that the soap solution cannot bridge, or that do not exhibit evidence of liquid leakage. Components that have these conditions present cannot be surveyed using the Alternative Screening Procedure.
 2. Spray a soap solution over all potential leak sources. The soap solution may be a commercially available leak detection solution or may be prepared using concentrated detergent and water. A pressure sprayer or squeeze bottle may be used to dispense the solution. Observe the potential leak sites to determine if any bubbles are formed. If no bubbles are observed, the source is presumed to

have no detectable emissions or leaks as applicable. If any bubbles are observed, Method 21 instruction shall be used to determine if a leak exists, or if the source has detectable emissions, as applicable.

- i. When using optical gas imaging to resurvey a repair, the fugitive emissions component is repaired when the optical gas imaging equipment show no indication of visible emissions. The procedure outlined in Condition 9.1.2.g. must be followed.
- j. For each repair that cannot be made during the monitoring survey when the fugitive emissions are initially found, a digital photograph must be taken of that component or the component must be tagged for identification purposes. The digital photograph must include the date that the photograph was taken, must clearly identify the component by location within the site (*e.g.*, the latitude and longitude of the component or by other descriptive landmarks visible in the picture).

[45CSR13, R13-3269 §8.1.1.; 45CSR16; 40 CFR §§60.5397a(a), (f)(2), (g)(2), (h), (h)(1), (h)(2) and (h)(3)]

- 9.1.2. The permittee shall develop a plan to monitor all fugitive emission components at the permitted facility. This fugitive emissions monitoring plan must include the elements specified in the following, at a minimum.
 - a. Frequency for conducting surveys. Surveys must be conducted at least as frequently as required by paragraphs of 40 CFR §§60.5397a(f) and (g).
 - b. Technique for determining fugitive emissions (*i.e.*, Method 21 at 40 CFR part 60, appendix A-7, or optical gas imaging).
 - c. Manufacturer and model number of fugitive emissions detection equipment to be used.
 - d. Procedures and timeframes for identifying and repairing fugitive emissions components from which fugitive emissions are detected, including timeframes for fugitive emission components that are unsafe to repair. The permittee's repair schedule must meet the requirements of Conditions 9.1.1.e. through 9.1.1.j.
 - e. Procedures and timeframes for verifying fugitive emission component repairs.
 - f. Records that will be kept and the length of time records will be kept.
 - g. The plan must also include the following elements:
 1. Initial verification that the optical gas imaging equipment used in the survey meets the following:
 - i. The optical gas imaging equipment must be capable of imaging gases in the spectral range for the compound of highest concentration in the potential fugitive emissions.
 - ii. The optical gas imaging equipment must be capable of imaging a gas that is half methane, half propane at a concentration of 10,000 ppm at a flow rate of less than 60 grams per hour from a quarter inch diameter orifice.
 2. Procedures to perform a daily verification check of the equipment.

3. Procedure for determining the operator's maximum viewing distance from the components and how the operator will ensure that this distance is maintained.
4. Procedure for determining maximum wind speed during which monitoring can be performed and how the operator will ensure monitoring occurs only at wind speeds below this threshold.
5. Procedures for conducting surveys, including the following:
 - i. How the operator will ensure an adequate thermal background is present in order to view potential fugitive emissions.
 - ii. How the operator will deal with adverse monitoring conditions, such as wind.
 - iii. How the operator will deal with interferences (e.g., steam).
6. Training and experience needed prior to performing surveys.
7. Procedures for calibration and maintenance. At a minimum, procedures must comply with those recommended by the manufacturer.
- h. If you are using Method 21 of appendix A-7 of 40 CFR Part 60, your plan must also include the following elements. For the purposes of complying with the fugitive emissions monitoring program using Method 21 a fugitive emission is defined as an instrument reading of 500 ppm or greater.
 1. Verification that your monitoring equipment meets the requirements specified in Section 6.0 of Method 21 at 40 CFR part 60, appendix A-7. For purposes of instrument capability, the fugitive emissions definition shall be 500 ppm or greater methane using a FID-based instrument. If you wish to use an analyzer other than a FID-based instrument, you must develop a site-specific fugitive emission definition that would be equivalent to 500 ppm methane using a FID-based instrument (e.g., 10.6 eV PID with a specified isobutylene concentration as the fugitive emission definition would provide equivalent response to your compound of interest).
 2. Procedures for conducting surveys. At a minimum, the procedures shall ensure that the surveys comply with the relevant sections of Method 21 at 40 CFR part 60, appendix A-7, including Section 8.3.1. [of Method 21]

[45CSR13, R13-3269 §§8.1.2.a. through f.; 45CSR16; 40 CFR §§60.5397a(b) and (c)]

- 9.1.3. The monitoring plan must include the following elements at the permitted facility:
 - a. Sitemap.
 - b. A defined observation path that ensures that all fugitive emissions components are within sight of the path. The path must include distinguishable marking that indicate or identify where the observation is being taken with relationship of specific collection of fugitive components. The observation path must account for interferences.

- c. If you are using Method 21, your plan must also include a list of fugitive emissions components to be monitored and method for determining location of fugitive emissions components to be monitored in the field (*e.g.* tagging, identification on a process and instrumentation diagram, etc.).
- d. Your plan must also include the written plan developed for all of the fugitive emission components designated as difficult-to-monitor in accordance with 40 CFR §60.5397(g)(3)(i), and the written plan for fugitive emission components designated as unsafe-to-monitor in accordance with paragraph 40 CFR §60.5397(g)(3)(ii).

[45CSR13, R13-3269 §8.1.2.g.; 45CSR16; 40 CFR §60.5397a(d)]

- 9.1.4. Each monitoring survey shall observe each fugitive emission component, as defined in 40 CFR 60.5430a, for fugitive emissions.

[45CSR13, R13-3269 §8.1.2.h.; 45CSR16; 40 CFR §60.5397a(e)]

- 9.1.5. The venting (blowdown) of the compressors, pig receivers and launchers, station shutdown events, and filter maintenance to atmosphere shall be conducted in accordance with the following limitations:

- a. The number of blowdown events from compressors shall not exceed 36 events during any 12-month consecutive period.
- b. The release from a pressure relief device (PRD) is not to be counted as a blowdown event.
- c. The total VOC emissions released as a result of depressurizing the pig receiver or launcher chambers shall not exceed 23.12 tons during any twelve-month consecutive period.
- d. The number of blowdown events due to station shutdown shall not exceed 5 events during any twelve-month consecutive period.
- e. The number of blowdown events due to filter maintenance events shall not exceed 15 events during any twelve-month consecutive period.

[45CSR13, R13-3269 §8.1.3.]

- 9.1.6. The permittee shall develop a plan to limit the duration of any unforeseen release of natural gas by responding to the event in a reasonable period. This plan will include the placement of visible contact information at the facility for public reporting of such an event. The permittee shall maintain a record of this plan and any revisions in accordance with Condition 3.4.2.

[45CSR13, R13-3269 §8.1.4.]

- 9.1.7. For each collection of fugitive emissions components at a compressor station, you must demonstrate continuous compliance with the fugitive emission standards specified in 40 CFR §60.5397a according to the following.
 - a. You must conduct periodic monitoring surveys as required in 40 CFR §60.5397a(g). (Condition 9.1.1.)
 - b. You must repair or replace each identified source of fugitive emissions as required in 40 CFR §60.5397a(h).

- c. You must maintain records as specified in 40 CFR §60.5420a(c)(15). (Condition 9.4.2.)
- d. You must submit annual reports for each collection of fugitive emissions components at a compressor station as required in 40 CFR §60.5420a(b)(1) and (7). (Condition 9.5.1.)

[45CSR16; 40 CFR §60.5415a(h)]

9.2. Monitoring Requirements

9.2.1. The permittee shall record the number of blowdowns from compressors, station shutdowns, and filter maintenance each month and maintain a 12-month rolling total of each type of blowdown event. Such records shall be maintained in accordance with Condition 3.4.2.
[45CSR13, R13-3269 §8.2.1.]

9.2.2. For each depressurization event of a pig chamber, the permittee shall record the pressure and temperature the chamber is at just prior to being pressurized and determine the VOCs released on a mass basis. On a monthly basis, the permittee shall sum the depressurization releases that occurred during the previous 12 consecutive months. Such records shall be maintained in accordance with Condition 3.4.2.
[45CSR13, R13-3269 §8.2.2.]

9.3. Testing Requirements

9.3.1. Reserved.

9.4. Recordkeeping Requirements

9.4.1. You must maintain the records identified as specified in 40 CFR §60.7(f) and in this section. All records required by 40 CFR 60 Subpart OOOOa must be maintained either onsite or at the nearest local field office for at least 5 years. Any records required to be maintained by this subpart that are submitted electronically via the EPA's CDX may be maintained in electronic format.
[45CSR16; 40 CFR §60.5420a(c)]

- 9.4.2. For each collection of fugitive emissions components at a compressor station, the following records:
- a. The fugitive emissions monitoring plan as required in 40 CFR §§60.5397a(b), (c), and (d).
 - b. The following records of each monitoring survey.
 - 1. Date of the survey.
 - 2. Beginning and end time of the survey.
 - 3. Name of operator(s) performing survey. You must note the training and experience of the operator.
 - 4. Monitoring instrument used.
 - 5. When optical gas imaging is used to perform the survey, one or more digital photographs or videos, captured from the optical gas imaging instrument used for conduct of monitoring, of each required monitoring survey being performed. The digital photograph must include the date the photograph

was taken and the latitude and longitude of the collection of fugitive emissions components at a well site or collection of fugitive emissions components at a compressor station imbedded within or stored with the digital file. As an alternative to imbedded latitude and longitude within the digital file, the digital photograph or video may consist of an image of the monitoring survey being performed with a separately operating GPS device within the same digital picture or video, provided the latitude and longitude output of the GPS unit can be clearly read in the digital image.

6. Fugitive emissions component identification when Method 21 is used to perform the monitoring survey.
7. Ambient temperature, sky conditions, and maximum wind speed at the time of the survey.
8. Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.
9. Documentation of each fugitive emission, including the following information:
 - i. Location.
 - ii. Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.
 - iii. Number and type of components for which fugitive emissions were detected.
 - iv. Number and type of difficult-to-monitor and unsafe-to-monitor fugitive emission components monitored.
 - v. Instrument reading of each fugitive emissions component that requires repair when Method 21 is used for monitoring.
 - vi. Number and type of fugitive emissions components that were not repaired as required in 40 CFR §60.5397a(h).
 - vii. Number and type of components that were tagged as a result of not being repaired during the monitoring survey when the fugitive emissions were initially found as required in 40 CFR §60.5397a(h)(3)(ii).
 - viii. If a fugitive emissions component is not tagged, a digital photograph or video of each fugitive emissions component that could not be repaired during the monitoring survey when the fugitive emissions were initially found as required in 40 CFR §60.5397a(h)(3)(ii). The digital photograph or video must clearly identify the location of the component that must be repaired. Any digital photograph or video required under this paragraph can also be used to meet the requirements under paragraph 40 CFR §60.5420a(c)(15)(ii)(E), as long as the photograph or video is taken with the optical gas imaging instrument, includes the date and the latitude and longitude are either imbedded or visible in the picture.
 - ix. Repair methods applied in each attempt to repair the fugitive emissions components.

- x. Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair.
- xi. The date of successful repair of the fugitive emissions component.
- xii. Instrumentation used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.

[45CSR13, R13-3269 §8.3.1.; 45CSR16; 40 CFR §60.5397a(i), §§60.5420a(c)(15)(i) and (c)(15)(ii)]

9.5. Reporting Requirements

- 9.5.1. The permittee shall submit to the Administrator an annual report with the reporting period beginning on August 2 and ending on August 1 with the report due to be submitted by October 31 via CEDRI (<https://cdx.epa.gov>). The permittee may include other facilities in this submission. This report shall contain the records of each monitoring survey of fugitive emission components as required in Condition 9.1.1.

Such records of such submittal shall be maintained in accordance with Condition 3.4.2. At the minimum, these reports shall contain the following information:

- a. Permittee Name, Facility Name, addresses of the Facility;
- b. An identification of each affected facility being included in the report;
- c. Beginning and ending dates of the reporting period.
- d. A certification by a certifying official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- e. Date of each monitoring survey.
- f. Beginning and end time of each survey.
- g. Name of operator(s) performing survey. If the survey is performed by optical gas imaging, the permittee must note the training and experience of the operator.
- h. Ambient temperature, sky conditions, and maximum wind speed at the time of the survey.
- i. Monitoring instrument used.
- j. Any deviations from the monitoring plan or a statement that there were no deviations from the monitoring plan.
- k. Number and type of components for which fugitive emissions were detected.
- l. Number and type of fugitive emissions components that were not repaired as required in Condition 9.1.1.e. (40 CFR §60.5397a(h)).

- m. Number and type of difficult-to-monitor and unsafe-to-monitor fugitive emission components monitored.
- n. The date of successful repair of the fugitive emissions component.
- o. Number and type of fugitive emission components placed on delay of repair and explanation for each delay of repair.
- p. Type of instrument used to resurvey a repaired fugitive emissions component that could not be repaired during the initial fugitive emissions finding.

[45CSR13, R13-3269 §8.4.1.; 45CSR16; 40 CFR §60.5385a(d), §§60.5397a(a) and (j), §§60.5420a(b)(1), (b)(7) and (b)(11)]

9.6. Compliance Plan

9.6.1. NA