**west virginia** department of environmental protection

Division of Air Quality
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Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
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December 15, 2015

CERTIFIED MAIL
91 7199 9991 7035 6692 5847

Chris Aker
27710 State Route 7
Marietta, Ohio 45750

Re: Eureka Hunter Pipeline, LLC
Carbide Site
Permit No. R13-3007C
Plant ID No. 103-00049

Dear Mr. Aker:

Your application for a permit as required by Section 5 of 45CSR13 - "Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permit, General Permit, and Procedures for Evaluation" has been approved. The enclosed permit R13-3007C is hereby issued pursuant to Subsection 5.7 of 45CSR13. Please be aware of the notification requirements in the permit which pertain to commencement of construction, modification, or relocation activities; startup of operations; and suspension of operations.

The source is not subject to 45CSR30.

In accordance with 45CSR22 - Air Quality Management Fee Program, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the Certificate has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

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.

Should you have any questions or comments, please contact me at (304) 926-0499, extension 1224.

Sincerely,

David Keatley

David Keatley
Permit Writer - NSR Permitting

Enclosures

***West Virginia Department of Environmental Protection***

*Earl Ray Tomblin*
*Governor*

***Division of Air Quality***

*Randy C. Huffman*
*Cabinet Secretary*

# Permit to Modify

**R13-3007C**

*This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§22-5-1 et seq.) and 45 C.S.R. 13 – Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation. The permittee identified at the above-referenced facility is authorized to construct the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.*

*Issued to:*

**Eureka Hunter Pipeline, LLC**
**Carbide Site**
**103-00049**

*William F. Durham*
*Director*

*Issued: December 15, 2015*

This permit will supersede and replace Permit R13-3007B.

| | |
|---|---|
| Facility Location: | Hastings, Wetzel County, West Virginia |
| Mailing Address: | 27710 State Route 7<br>Marietta, Ohio 45750 |
| Facility Description: | Natural Gas Compression Station |
| NAICS Codes: | 211111 |
| UTM Coordinates: | 528.737 km Easting • 4,376.709 km Northing • Zone 17 |
| Permit Type: | Modification |
| Description of Change: | Installation and operation of one (1) 2,750-bhp compressor engine. Removal of two (2) 1,380-bhp compressor engines. |

*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.*

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*The source is not subject to 45CSR30.*

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## 1.0. Emission Units

| Emission Unit ID | Emission Point ID | Emission Unit Description | Year Installed | Design Capacity | Control Device |
|---|---|---|---|---|---|
| S1 | E1 | Caterpillar G3516B Engine | 2012 | 1,380 bhp | C1 |
| S2 | E2 | Caterpillar G3516B Engine | 2012 | 1,380 bhp | C2 |
| S3 | E3 | Caterpillar G3516B Engine | 2012 | 1,380 bhp | C3 |
| S4 | E4 | Caterpillar G3516B Engine | 2012 | 1,380 bhp | C4 |
| S5A | E5A | Caterpillar 3406 NA Engine | 2012 | 215 bhp | C5 |
| S6A | E6A | Caterpillar 3406 NA Engine | 2012 | 215 bhp | C6 |
| S7 | E7 | Reboiler Vent | 2012 | 80 MMCF/day | C7 |
| S8 | E8 | Caterpillar G3516B Engine | 2013 | 1,380 bhp | C8 |
| S9 | E9 | Caterpillar G3516B Engine | 2013 | 1,380 bhp | C9 |
| S10 | E10 | Caterpillar G3516B Engine | 2013 | 1,380 bhp | C10 |
| S11 | E11 | Caterpillar G3516B Engine | 2013 | 1,380 bhp | C11 |
| S14 | E16 | Truck Loading (uncaptured) | 2014 | 4,600,00 gallons/year | None |
| S15 | E16 | Truck Loading VCU | 2014 | 4,600,000 gallons/year | Vapor Combustor |
| S15-A | E16 | Truck Loading VCU Pilot | 2014 | 551 scf/hr | None |
| S17 | E17 | Line Heater | 2013 | 0.75 MMBTU/hr | None |
| S15 | E15 | Pigging and Blowdowns | 2012 | Not Applicable | None |
| S16 | E16 | Fugitive Emissions | 2012 | Not Applicable | None |
| S20 | E20 | Caterpillar G3608 Compressor Engine | 2015 | 2,370 bhp | C20 |

## 1.1. Control Devices

| Emission Unit | Pollutant | Control Device | Control Efficiency |
|---|---|---|---|
| S1 – S4 and S8 –S13 Caterpillar G3516B Compressor Engines | Carbon Monoxide | Non Selective Catalytic Reduction (NSCR) | 93% |
| | Volatile Organic Compounds | | 50% |
| | Formaldehyde | | 86% |
| S5A Three-way Separator Vapor Compressor Engine | Nitrogen Oxides | Non Selective Catalytic Reduction (NSCR) | 94% |
| | Carbon Monoxide | | 94% |
| | Formaldehyde | | 50% |
| S6A Condensate Vapor Compressor Engine | Nitrogen Oxides | Non Selective Catalytic Reduction (NSCR) | 94 % |
| | Carbon Monoxide | | 94% |
| | Formaldehyde | | 50% |
| S7 Regenerator Vapors | Volatile Organic Compounds | Reboiler | 95% |
| S15 and S15-A Truck Loading | Volatile Organic Compounds | Vapor Combustor | 97.7% |
| S20 Caterpillar G3608 Compressor Engine | Carbon Monoxide | DCL Oxidation Catalyst (C20) | 92.7% |
| | Volatile Organic Compounds | | 69.7% |
| | Formaldehyde | | 76.9% |

## 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.

### 2.2. Acronyms

| | |
|---|---|
| **CAAA** | Clean Air Act Amendments |
| **CBI** | Confidential Business Information |
| **CEM** | Continuous Emission Monitor |
| **CES** | Certified Emission Statement |
| **C.F.R. *or* CFR** | Code of Federal Regulations |
| **CO** | Carbon Monoxide |
| **C.S.R. *or* CSR** | Codes of State Rules |
| **DAQ** | Division of Air Quality |
| **DEP** | Department of Environmental Protection |
| **dscm** | Dry Standard Cubic Meter |
| **FOIA** | Freedom of Information Act |
| **HAP** | Hazardous Air Pollutant |
| **HON** | Hazardous Organic NESHAP |
| **HP** | Horsepower |
| **lbs/hr** | Pounds per Hour |
| **LDAR** | Leak Detection and Repair |
| **M** | Thousand |
| **MACT** | Maximum Achievable Control Technology |
| **MDHI** | Maximum Design Heat Input |
| **MM** | Million |
| **MMBtu/hr *or* mmbtu/hr** | Million British Thermal Units per Hour |
| **MMCF/hr *or* mmcf/hr** | Million Cubic Feet per Hour |
| **NA** | Not Applicable |
| **NAAQS** | National Ambient Air Quality Standards |
| **NESHAPS** | National Emissions Standards for Hazardous Air Pollutants |
| **$NO_X$** | Nitrogen Oxides |
| **NSPS** | New Source Performance Standards |
| **PM** | Particulate Matter |
| **$PM_{2.5}$** | Particulate Matter less than 2.5 µm in diameter |
| **$PM_{10}$** | Particulate Matter less than 10µm in diameter |
| **Ppb** | Pounds per Batch |
| **Pph** | Pounds per Hour |
| **Ppm** | Parts per Million |
| **Ppmv or ppmv** | Parts per Million by Volume |
| **PSD** | Prevention of Significant Deterioration |
| **Psi** | Pounds per Square Inch |
| **SIC** | Standard Industrial Classification |
| **SIP** | State Implementation Plan |
| **$SO_2$** | Sulfur Dioxide |
| **TAP** | Toxic Air Pollutant |
| **TPY** | Tons per Year |
| **TRS** | Total Reduced Sulfur |
| **TSP** | Total Suspended Particulate |
| **USEPA** | United States Environmental Protection Agency |
| **UTM** | Universal Transverse Mercator |
| **VEE** | Visual Emissions Evaluation |
| **VOC** | Volatile Organic Compounds |
| **VOL** | Volatile Organic Liquids |

## 2.3. Authority

This permit is issued in accordance with West Virginia air pollution control law W.Va. Code §§ 22-5-1. et seq. and the following Legislative Rules promulgated thereunder:

2.3.1. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits and Procedures for Evaluation*;

## 2.4. Term and Renewal

2.4.1. This permit supersedes and replaces previously issued Permit R13-3007B. This Permit shall remain valid, continuous and in effect unless it is revised, suspended, revoked or otherwise changed under an applicable provision of 45CSR13 or any other applicable legislative rule;

## 2.5. Duty to Comply

2.5.1. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-3007, and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to;
**[45CSR§§13-5.11 and 10.3.]**

2.5.2. 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;

2.5.3. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7;

2.5.4. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.

## 2.6. Duty to Provide Information

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 administratively updating, modifying, revoking, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records 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 C.F.R. Part 2.

## 2.7. Duty to Supplement and Correct Information

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.

## 2.8. Administrative Update

The permittee may request an administrative update to this permit as defined in and according to the procedures specified in 45CSR13.
**[45CSR§13-4.]**

## 2.9. Permit Modification

The permittee may request a minor modification to this permit as defined in and according to the procedures specified in 45CSR13.
**[45CSR§13-5.4.]**

## 2.10 Major Permit Modification

The permittee may request a major modification as defined in and according to the procedures specified in 45CSR14 or 45CSR19, as appropriate.
**[45CSR§13-5.1]**

## 2.11. Inspection and Entry

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; and

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.

## 2.12. Emergency

2.12.1. An "emergency" means any situation arising from sudden and reasonable 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.

2.12.2. 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 Section 2.12.3 are met.

2.12.3. 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. 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 must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

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

2.12.5 The provisions of this section are in addition to any emergency or upset provision contained in any applicable requirement.

## 2.13. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a permittee in an enforcement action that it should 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.

## 2.14. Suspension of Activities

In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.

## 2.15. Property Rights

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

## 2.16. Severability

The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.

## 2.17. Transferability

This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13. **[45CSR§13-10.1.]**

## 2.18. Notification Requirements

The permittee shall notify the Secretary, in writing, no later than thirty (30) calendar days after the actual startup of the operations authorized under this permit.

## 2.19. Credible Evidence

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 defense otherwise available to the permittee including, but not limited to, any challenge to the credible evidence rule in the context of any future proceeding.

## 3.0. Facility-Wide Requirements

### 3.1. Limitations and Standards

3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency 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, suffer, allow or permit 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 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 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 C.F.R. § 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.
**[40CFR§61.145(b) and 45CSR§34]**

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. **Permanent shutdown.** A source which has not operated at least 500 hours in one 12-month period within the previous five (5) year time period may be considered permanently shutdown, unless such source can provide to the Secretary, with reasonable specificity, information to the contrary. All permits may be modified or revoked and/or reapplication or application for new permits may be required for any source determined to be permanently shutdown.
**[45CSR§13-10.5.]**

3.1.6. **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.]**

### 3.2. Monitoring Requirements

*[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 C.F.R. Parts 60, 61, and 63 in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as 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. If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit may be revised in accordance with 45CSR§13-4. or 45CSR§13-5.4 as applicable.

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 sixty (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; and,
    3. A statement of compliance or noncompliance with each permit or rule condition.

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

## 3.4. Recordkeeping Requirements

3.4.1. **Retention of records.** The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on site. The remaining three (3) years of data may be maintained off site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, DVDs, or magnetic tape disks), on microfilm, or on microfiche.

3.4.2. **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§4. *State Enforceable Only.*]**

## 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.

3.5.2. **Confidential information.** A permittee may request confidential treatment for the submission of reporting required by this permit pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

3.5.3. **Correspondence.** 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 with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

**If to the DAQ:**
Director
WVDEP
Division of Air Quality
601 57th Street
Charleston, WV 25304-2345

**If to the US EPA:**
Associate Director
Office of Enforcement and Compliance Assistance
(3AP20)
U.S. Environmental Protection Agency
Region III
1650 Arch Street
Philadelphia, PA 19103-2029

### 3.5.4. Operating Fee

3.5.4.1. In accordance with 45CSR22 – Air Quality Management Fee Program, the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first obtaining and having in current effect a

Certificate to Operate (CTO). Such Certificate to Operate (CTO) shall be renewed annually, shall be maintained on the premises for which the certificate has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

3.5.5. **Emission inventory.** At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a frequency other than on an annual basis.

## 4.0. Source-Specific Requirements

### 4.1. Limitations and Standards

4.1.1. Maximum controlled emissions from each of the 1,380 bhp natural gas fired reciprocating engines, Caterpillar G3516B (S1 – S4 and S8 – S13) shall not exceed the following limits:

| Pollutant | Maximum Hourly Emissions (lbs/hr) | Maximum Annual Emissions (TPY) |
|---|---|---|
| $NO_x$ | 1.52 | 6.66 |
| CO | 0.61 | 2.67 |
| VOC | 1.00 | 4.40 |
| Formaldehyde | 0.18 | 0.80 |

4.1.2. To help demonstrate compliance with section 4.1.1., the permittee will have a fuel quantity limit. The quantity of pipeline quality natural gas that shall be consumed in each of the 1,380 bhp Caterpillar G3616 LE engines (S1 – S4 and S8 – S13) shall not exceed 10,180 cubic feet per hour and 89.2 x $10^6$ cubic feet per year for each engine.

4.1.3. Maximum controlled emissions from the 215 bhp natural gas fired reciprocating engine, Caterpillar 3406 NA (S5A) shall not exceed the following limits:

| Pollutant | Maximum Hourly Emissions (lbs/hr) | Maximum Annual Emissions (TPY) |
|---|---|---|
| $NO_x$ | 0.46 | 2.02 |
| CO | 0.46 | 2.02 |

4.1.4. To help demonstrate compliance with section 4.1.3., the permittee will have a fuel quantity limit. The quantity of pipeline quality natural gas that shall be consumed in Caterpillar 3306 NA (S5) shall not exceed 1,690 cubic feet per hour and 14.81 x $10^6$ cubic feet per year.

4.1.5. Maximum controlled emissions from the 215 bhp natural gas fired reciprocating engine, Caterpillar 3406 NA (S6A) shall not exceed the following limits:

| Pollutant | Maximum Hourly Emissions (lbs/hr) | Maximum Annual Emissions (TPY) |
|---|---|---|
| $NO_x$ | 0.46 | 2.02 |
| CO | 0.46 | 2.02 |

4.1.6. To help demonstrate compliance with section 4.1.3., the permittee will have a fuel quantity limit. The quantity of pipeline quality natural gas that shall be consumed in Caterpillar 3304 NA (S6) shall not exceed 1,690 cubic feet per hour and 14.81 x $10^6$ cubic feet per year.

4.1.7. Maximum controlled emissions from the 2,370 bhp natural gas fired reciprocating engine, Caterpillar 3608 (S20) shall not exceed the following limits:

| Pollutant | Maximum Hourly Emissions (lbs/hr) | Maximum Annual Emissions (TPY) |
|---|---|---|
| $NO_x$ | 2.61 | 11.44 |
| CO | 1.04 | 4.58 |

| | | |
|---|---|---|
| VOC | 1.72 | 7.55 |

4.1.8. To help demonstrate compliance with section 4.1.7., the permittee will have a fuel quantity limit. The quantity of pipeline quality natural gas that shall be consumed in Caterpillar 3608 (S20) shall not exceed 16,098 cubic feet per hour and 141 x $10^6$ cubic feet per year.

4.1.9. Requirements for Use of Catalytic Reduction Devices (C1 – C6 and C8 – C13)

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.

b. On a semiannual basis, the permittee shall conduct portable analyzer strip checks of Nitrogen Oxides (NOx) and Carbon Monoxide (CO) emissions from the engines when operating under representative conditions for that period to ensure proper operation of the catalytic reduction devices. The portable analyzer strip checks shall be conducted using the following procedure:

1. Samples of pollutant concentrations should be taken from sample ports in the stack or using a "Shepherd's hook" from a location in the stack such that a representative concentration is measured and bias (e.g., air leakage at weep holes) is prevented. The use of stainless steel tubing ran from sampling site to ground level may be used. A single sampling location near the center of the duct may be selected.

2. The emissions check should produce at least one test strip of concentration data for each of $O_2$, NO, $NO_2$ and CO. The analyzer should be run for minimum of 5 minutes to allow readings to stabilize. Then run analyzer for 5 minutes and verify stability in concentrations. Print a representative test strip on the analyzer.

3. With this test strip include (when available) unit number or lease name, rpm, manifold pressure, compressor suction and discharge pressures and any other information that may help determine horsepower during test.

c. During any calendar quarter when a performance test is required under Section 3.3 or Section 5 of this permit, those test results will satisfy the requirements of Section 4.1.5.b in lieu of a portable analyzer strip check.

4.1.10. **Reboiler and Line Heater Opacity Limit.** The Reboiler (S7) and Line Heater (S17) shall not emit particulate matter into the open air greater than ten (10) percent opacity based on a six minute block average.
**[45CSR§2-3.1.]**

4.1.11. **Truck Loading Limitations**. A vapor balance line from the truck back to the condensate tank is required any time condensate is being loaded by a truck. Condensate Loading shall be limited to 12 hours of any day.

4.1.12. **Engines S5A and S6A.** Change oil and filter every 1,440 hours of operation or annually, whichever comes first.

4.1.13. **Engines S5A and S6A.** Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.

4.1.14. **Engines S5A and S6A.** Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.

4.1.15. **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 1.0 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.
**[45CSR§13-5.11.]**

## 4.2. Monitoring Requirements

4.2.1. Catalytic Oxidizer Control Devices

a. The permittee shall regularly inspect, properly maintain and/or replace catalytic reduction devices and auxiliary air pollution control devices to ensure functional and effective operation of the engine's physical and operational design. The permittee shall ensure proper operation, maintenance and performance of catalytic reduction devices and auxiliary air pollution control devices by:

1. Maintaining proper operation of the automatic air/fuel ratio controller or automatic feedback controller.

2. Following operating and maintenance recommendations of the catalyst element manufacturer.

## 4.3. Recordkeeping Requirements

4.3.1. **Record of Monitoring.** 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.

4.3.2. **Record of Maintenance of Air Pollution Control Equipment.** For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

4.3.3. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, 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.

4.3.4. To demonstrate compliance with section 4.1.2., the permittee shall maintain monthly and annual records of the quantity and type of fuel consumed in each engine and the hours of operation of each engine. Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months.

4.3.5. To demonstrate compliance with section 4.1.4., the permittee shall maintain monthly and annual records of the quantity and type of fuel consumed in each engine and the hours of operation of each engine. Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months.

4.3.6. To demonstrate compliance with section 4.1.6., the permittee shall maintain monthly and annual records of the quantity and type of fuel consumed in each engine and the hours of operation of each engine. Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months.

4.3.7. To demonstrate compliance with section 4.1.10. – 4.1.13., the permittee shall maintain records of the maintenance performed on engine CE-1. Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the

agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

# 5.0. Source-Specific Requirements (40CFR60 Subpart JJJJ Requirements)

## 5.1. Limitations and Standards

5.1.1. Each 1,380 bhp engine (S1 – S4 and S8 – S13) is required to meet the following emission standards: NOx 1.0 g/bhp-hr, CO 2.0 g/bhp-hr, and VOC 0.7 g/bhp-hr.
**[40CFR§60.4233(e)]**

5.1.2. This facility must operate and maintain each 1,380 bhp engine (S1 – S4 and S8 – S13) over the entire life of the engine.
**[40CFR§60.4234]**

5.1.3. Engine S20 Caterpillar G3608 is required to meet the following emission standards: NOx 1.0 g/bhp-hr, CO 2.0 g/bhp-hr, and VOC 0.7 g/bhp-hr.
**[40CFR§60.4233(e)]**

5.1.4. This facility must operate and maintain engine S20 Caterpillar G3608 over the entire life of the engine.
**[40CFR§60.4234]**

## 5.2. Compliance Requirements

5.2.1. The permittee shall keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours of operation or 3 years, whichever comes first, thereafter to demonstrate compliance.
**[40CFR§60.4243(b)(2)(ii)]**

5.2.2. It is expected that the air-to-fuel ratio (AFR) controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated in a manner to ensure proper operation of the engine and control device to minimize emissions at all times.
**[40CFR§60.4243(g)]**

## 5.3. Testing Requirements

To demonstrate compliance with section 5.1.1. and 5.1.3., the permittee shall conduct the following testing.

5.3.1. The permittee shall conduct performance tests following the procedures in paragraphs (a) through (g) of this section.

a. Each performance test shall 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 this subpart. [40CFR§60.4244(a)]

b. The permittee may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If the stationary SI internal combustion engine is non-operational, it is not necessary to start up the engine solely to conduct a performance test; however, the performance test must be conducted immediately upon startup of the engine. [40CFR§60.4244(b)]

c. The permittee shall conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run shall be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour. [40CFR§60.4244(c)]

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:

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

Where:
ER = Emission rate of $NO_X$ in g/HP-hr.

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

$1.912\times10^{-3}$ = 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).

[40CFR§60.4244(d)]

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:

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

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.

[40CFR§60.4244(e)]

f. For purposes of this subpart, 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:

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

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

$C_d$= VOC concentration measured as propane in ppmv.

$1.833\times10^{-3}$ = 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.

[40CFR§60.4244(f)]

g. If the owner/operator chooses to measure VOC emissions using 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.

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

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.

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

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.

$$C_{Peq} = 0.6098 \times C_{icorr} \qquad \text{(Eq. 6)}$$

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

[40CFR§60.4244(g)]

## 5.4. Recordkeeping

The permittee shall keep the following records pursuant to section 3.4.1.
**[40CFR§60.4245(a)]**

5.4.1. All notifications to comply with 40CFR60 Subpart JJJJ and all documentation supporting any notification.

5.4.2. Maintenance conducted on each 1,380 bhp engine (S1 – S4 and S8 – S13) and on engine S20.

5.4.3. Documentation that each 1,380 bhp engine (S1 – S4 and S8 – S13) meets the emission standards set forth in 5.1.1. and that engine S20 meets emission standards set forth in 5.1.3.

## 5.5. Reporting

5.5.1 The permittee shall submit an initial notification to the Director of the Division of Air Quality as required by §60.7(a)(1) and include the following.
**[40CFR§60.4245(c)]**

5.5.1.2. Name and address of the owner or operator,

5.5.1.2. The address of the affected source,

5.5.1.3. Make, model, engine family, serial number, model year, maximum engine power, and engine displacement.

5.5.1.4. Emission control equipment.

5.5.1.5. Fuel used.

5.5.2. The permittee shall submit a copy of each performance test as conducted in accordance with §60.4244 to the Director of the Division of Air Quality within 60 days after the test has been completed.

# 6.0. Source-Specific Requirements (40CFR60 Subpart OOOO; S1 – S13)

## 6.1. Limitations and Standards

6.1.1. The compressors associated with engines S1 – S13 and S20 must replace the compressor rod packing before the compressor has operated 26,000 hours from installation or repacking; or 36 months from the date of installation or repacking whichever one comes first.

## 6.2. Recordkeeping Requirements

6.2.1. From the date the compressors are installed the hours of operation and months of service shall be recorded continuously.

6.2.2. Records of the date and time of each reciprocating compressor rod packing replacement.

## 6.3. Reporting

6.3.1. **Annual Report**. The initial annual report is due 30 days after the initial compliance period and the subsequent reports are due on the same date as the initial report. The information needed in the annual report is the following: The hours of operation from installation or from the previous repacking and records of deviations.

# 7.0. Source-Specific Requirements (TEG Dehydration Unit; S7)

## 7.1. Limitations and Standards

7.1.1. Maximum Throughput Limitation. The maximum wet natural gas throughput to the glycol dehydration unit/still column shall not exceed 80.0 million standard cubic feet per day (MMscf/day). Compliance with the Maximum Throughput Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.

7.1.2. Maximum emissions from the glycol dehydration unit/still column (S7) shall not exceed the following limits:

| Pollutant | Maximum Hourly Emissions (lb/hr) | Maximum Annual Emissions (ton/year) |
|---|---|---|
| Nitrogen Oxides | 0.16 | 0.67 |
| Carbon Monoxide | 0.13 | 0.56 |
| Volatile Organic Compounds | 0.24 | 1.11 |
| n-Hexane | 0.02 | 0.06 |
| Benzene | 0.01 | 0.03 |
| Ethyl benzene | 0.01 | 0.02 |
| Toluene | 0.01 | 0.03 |
| Xylenes | 0.01 | 0.03 |

7.1.3. For purposes of determining potential HAP emissions at production-related facilities, the methods specified in 40 CFR 63, Subpart HH (i.e. excluding compressor engines from HAP PTE) shall be used.

7.1.4. Any source that determines it is not a major source but has actual emissions of 5 tons per year or more of a single HAP, or 12.5 tons per year or more of a combination of HAP (i.e., 50 percent of the major source thresholds), shall update its major source determination within 1 year of the prior determination or October 15, 2012, whichever is later, and each year thereafter, using gas composition data measured during the preceding 12 months.
**[40CFR§63.760(c)]**

7.1.5. The permittee is exempt from the requirements of 40CFR§63.760(b)(2) if the criteria below is met, except that the records of the determination of these criteria must be maintained as required in 40CFR§63.774(d)(1).

a. The actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year (1 ton/yr), as determined by the procedures specified in §63.772(b)(2) of this subpart.
**[40CFR§63.764(e)]**

7.1.6. All vapors from the regenerator will be sent to a condenser and then to reboiler S7 to be used as fuel and operated to achieve minimum 95% control efficiency.

## 7.2. Monitoring Requirements

7.2.1. The permittee shall monitor the throughput of wet natural gas process stream which flows through the contactor of the TEG dehydration unit on a monthly basis.

7.2.2. In order to demonstrate compliance with the area source status, claimed within sections 7.1.2 and 7.1.3, as well as the benzene exemption provided under section 7.1.7, the following parameters shall be measured at least once quarterly, with the exception of the natural gas flowrate annual daily average, natural gas flowrate maximum design capacity, and wet gas composition, in order to define annual average values or, if monitoring is not practical, some parameters may be assigned default values as listed below.

a. Natural Gas Flowrate
   i. Number of hours operated per quarter
   ii. Quarterly throughput (MMscf/quarter)
   iii. Annual daily average (MMscf/day), and
   iv. Maximum design capacity (MMscf/day)
b. Absorber temperature and pressure
c. Lean glycol circulation rate
d. Glycol pump type and maximum design capacity (gpm)
e. Flash tank temperature and pressure, if applicable
f. Stripping Gas flow rate, if applicable
g. Wet gas composition (upstream of the absorber – dehydration column) sampled in accordance with GPA method 2166 and analyzed consistent with GPA extended method 2286 as well as the procedures presented in the GRI-GLYCalc™ Technical Reference User Manual and Handbook V4
h. Wet gas water content (lbs $H_2O$/MMscf)
i. Dry gas water content (lbs $H_2O$/MMscf) at a point directly after exiting the dehydration column and before any additional separation points

The following operating parameter(s) may be assigned default values when using GRI-GLYCalc:

a. Dry gas water content can be assumed to be equivalent to pipeline quality at 7 lb $H_2O$ / MMscf
b. Wet gas water content can be assumed to be saturated
c. Lean glycol water content if not directly measured may use the default value of 1.5 % water as established by GRI
d. Lean glycol circulation rate may be estimated using the TEG recirculation ratio of 3 gal TEG / lb $H_2O$ removed.

Note: If you are measuring and using actual wet or dry gas water content, then you should also measure the glycol recirculation rate rather than using the default TEG recirculation ratio. **[45CSR§13-5.11, §63.772(b)(2)(i)]**

## 7.3. Testing Requirements

7.3.1. The permittee shall determine the composition of the wet natural gas by sampling in accordance with GPA Method 2166 and analyzing according to extended GPA Method 2286 analysis as specified in the GRI-GLYCalc™ V4 Technical Reference User Manual and Handbook. As specified in the handbook, the permittee shall sample the wet gas stream at a location prior to the glycol dehydration contactor column, but after any type of separation device, in accordance with GPA method 2166. The permittee may utilize other equivalent methods provided they are approved in advance by DAQ as part of a testing protocol. If alternative methods are proposed, a test protocol shall be submitted for approval no later than 60 days before the scheduled test date.

The initial compliance test must be conducted within 180 days of permit issuance or within 180 days of startup of the glycol dehydration unit, whichever is later.

Note: The DAQ defines a representative wet gas sample to be one that is characteristic of the average gas composition dehydrated throughout a calendar year. If an isolated sample is not indicative of the annual average composition, the permittee may opt to produce a weighted average based on throughput between multiple sampling events, which can be used to define a more representative average annual gas composition profile.
**[45CSR§13-5.11]**

7.3.2. The following testing and compliance provisions of Part 63 Subpart HH National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities are applicable to the facility:

§ 63.772 Test methods, compliance procedures, and compliance demonstrations.

(b) Determination of glycol dehydration unit flowrate, benzene emissions, or BTEX emissions. The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit natural gas flowrate, benzene emissions, or BTEX emissions.

(2) The determination of actual average benzene emissions or BTEX emissions from a glycol dehydration unit shall be made using the procedures of paragraph (b)(2)(i) of this requirement. Emissions shall be determined either uncontrolled, or with federally enforceable controls in place.

(i) The owner or operator shall determine actual average benzene emissions using the model GRI-GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. 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 Gas Research Institute (GRI) report entitled "Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions " (GRI-95/0368.1).
**[§63.772(b)(2)(i)]**

## 7.4. Recordkeeping Requirements

7.4.1. The permittee shall maintain a record of the wet natural gas throughput through the TEG dehydration contactor to demonstrate compliance with section 7.1.1 of this permit. Said records shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

7.4.2. For the purpose of documenting compliance with the emission limitations, HAP major source thresholds, as well as the benzene exemption, the permittee shall maintain records of all monitoring data, wet gas sampling, and annual GRI-GLYCalc™ emission estimates. Said records shall be maintained for a period of five (5) years on site or in a readily accessible off-site location maintained by the permittee. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.
**[45CSR§13-5.11]**

## 8.0. Source-Specific Requirements (Vapor Combustor; S14, S15, and S15-A)

### 8.1. Limitations and Standards

8.1.1. The permittee shall install a vapor combustor to control VOC and HAP emissions from truck loading S15 and S15-A. This vapor combustor shall achieve a minimum guaranteed control efficiency of 97.7% for volatile organic compound (VOC) emissions.

8.1.2. The permittee shall use the vapor combustor at all times truck loading occurs, have a constant pilot flame during all times of truck loading, and follow manufacturer's recommendations in operation of the vapor combustor.

8.1.3. The vapor combustor shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

8.1.4. Vapor combustor must be installed and operating within 60 days of the issuance of Permit R13-3007B.

8.1.5. To demonstrate compliance with Section 8.1.6., the quantity of waste gas that shall be consumed in the vapor combustor shall not exceed 1,620 cubic feet per hour. Compliance with the gas throughput limit shall be demonstrated using a rolling 12-month total.

8.1.6. Vapor Combustor Emission Limitations. Maximum emissions from the vapor combustor (S14, S15, and S15-A) or emission point E16 shall not exceed the following limits:

| Pollutant | Maximum Hourly Emissions (lb/hr) | Maximum Annual Emissions (ton/year) |
|---|---|---|
| Volatile Organic Compounds | 0.88 | 0.96 |
| Nitrogen Oxides | 0.18 | 0.32 |
| Carbon Monoxide | 0.42 | 0.57 |

8.1.7. Annual Storage Tank Throughput Limitation. The permittee shall not exceed 4,600,000 gallons per year of condensate. Compliance with these annual throughput limitations shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the tank throughputs at any given time during the previous twelve consecutive months.

### 8.2. Monitoring Requirements

8.2.1. The pilot flame shall be continuously monitored by a thermocouple or an infrared monitor. Each monitoring device shall be accurate to, and shall be calibrated at a frequency in accordance with manufacturer's specifications.

8.2.2. The permittee shall monitor the throughput to the vapor combustor on a monthly basis.

### 8.3. Testing Requirements

8.3.1. The permittee shall conduct a Method 22 opacity test on the vapor combustor for at least two hours. This test shall demonstrate no visible emissions are observed for more than a total of 5 minutes during any 2 consecutive hour period using 40CFR60 Appendix A Method 22. The permittee shall conduct this test within one (1) year of permit issuance or initial startup whichever

is later. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR part 60, appendix A, Method 22 or from the lecture portion of 40 CFR part 60, appendix A, Method 9 certification course.

## 8.4. Recordkeeping Requirements

8.4.1. For the purpose of demonstrating compliance with section 8.2.1., the permittee shall maintain records of the times and duration of all periods which the pilot flame was absent.

8.4.2. For the purpose of demonstrating compliance with section 8.3.1., the permittee shall maintain records of the visible emission opacity tests.

8.4.3. For the purpose of demonstrating compliance with section 8.2.2., the permittee shall maintain records of the throughputs of condensate loaded into tank trucks. The permittee shall calculate the monthly throughput to the vapor combustor by ratio of the recorded condensate and tank truck loading volumes against the process modeling and throughput information within the plans and specifications filed in Permit Application R13-3007B.

8.4.4. All records required under Section 8.4. shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

## 8.5. Reporting Requirements

8.5.1 Any deviation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 must be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days, of the occurrence and shall include, at a minimum, the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

# 9.0. Source-Specific Requirements (Line Heater and Reboiler; S7 and S17)

## 9.1. Limitations and Standards

9.1.1. Maximum Design Heat Input Limitations. The maximum design heat input for Reboiler S7 shall not exceed 0.75 MMBTU/hr. The maximum design heat input for Line Heater S17 shall not exceed 1.50 MMBTU/hr.

9.1.2. Maximum air emissions from the 0.75 MMBTU/hr Reboiler S7 shall not exceed the following limits:

| Pollutant | Maximum Hourly Emissions (lb/hr) | Maximum Annual Emissions (ton/year) |
|---|---|---|
| Nitrogen Oxides | 0.08 | 0.33 |
| Carbon Monoxide | 0.06 | 0.28 |

9.1.3. Maximum air emissions from the 1.50 MMBTU/hr Line Heater S17 shall not exceed the following limits:

| Pollutant | Maximum Hourly Emissions (lb/hr) | Maximum Annual Emissions (ton/year) |
|---|---|---|
| Nitrogen Oxides | 0.15 | 0.67 |
| Carbon Monoxide | 0.13 | 0.56 |

9.1.4. To demonstrate compliance with Section 9.1.2., the quantity of natural gas that shall be consumed in the 0.75 MMBTU/hr Reboiler S7 shall not exceed 687 cubic feet per hour and $6.02 \times 10^7$ cubic feet per year each.

9.1.5. To demonstrate compliance with Section 9.1.3., the quantity of natural gas that shall be consumed in the 1.5 MMBTU/hr Line Heater S17 shall not exceed 1,520.2 cubic feet per hour and $13.32 \times 10^7$ cubic feet per year each.

9.1.6. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
**[45CSR§2-3.1.]**

## 9.2. Monitoring Requirements

9.2.1. For the purpose of determining compliance with the opacity limits of section 9.1.6., the permittee shall conduct visible emission checks and/or opacity monitoring and recordkeeping for Reboiler (S7) and Line Heater (S17).

The visible emission check shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40CFR Part 60, Appendix A, Method 22 or from the lecture portion of the 40CFR Part 60, Appendix A, Method 9 certification course.

Visible emission checks shall be conducted at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at each source for a sufficient time interval, but no less than one (1) minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of facility operation and appropriate weather conditions.

If visible emissions are present at a source(s) for three (3) consecutive monthly checks, the permittee shall conduct an opacity reading at that source(s) using the procedures and requirements of Method 9 as soon as practicable, but within seventy-two (72) hours of the final visual emission check. A Method 9 observation at a source(s) restarts the count of the number of consecutive readings with the presence of visible emissions.

## 9.3. Testing Requirements

9.3.1. Compliance with the visible emission requirements of section 9.1.5. shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9, Method 22, or by using measurements from continuous opacity monitoring systems approved by the Director. The Director may require the installation, calibration, maintenance and operation of continuous opacity monitoring systems and may establish policies for the evaluation of continuous opacity monitoring results and the determination of compliance with the visible emission requirements of section 7.1.3. Continuous opacity monitors shall not be required on fuel burning units which employ wet scrubbing systems for emission control.

## 9.4. Recordkeeping Requirements

9.4.1. To demonstrate compliance with sections 9.1.2. through 9.1.4., the permittee shall maintain records for both Reboiler S7 and Line Heater S17 the amount of natural gas and hours of operation. Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

9.4.2. The permittee shall maintain records of all monitoring data required by Section 9.2.1. documenting the date and time of each visible emission check, the emission point or equipment/source identification number, the name or means of identification of the observer, the results of the check(s), whether the visible emissions are normal for the process, and, if applicable, all corrective measures taken or planned. The permittee shall also record the general weather conditions (i.e. sunny, approximately 80°F, 6 - 10 mph NE wind) during the visual emission check(s). Should a visible emission observation be required to be performed per the requirements specified in Method 9, the data records of each observation shall be maintained per the requirements of Method 9.

## 9.5. Reporting Requirements

9.5.1. Any deviation(s) from the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 or 22 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

# CERTIFICATION OF DATA ACCURACY

I, the undersigned, hereby certify that, based on information and belief formed after reasonable inquiry, all information contained in the attached _____, representing the period beginning _____ and ending _____, and any supporting documents appended hereto, is true, accurate, and complete.

Signature[1] (please use blue ink) _____ Responsible Official or Authorized Representative _____ Date

Name & Title (please print or type) _____ Name _____ Title

Telephone No. _____ Fax No. _____

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[1] This form shall be signed by a "Responsible Official." "Responsible Official" means one of the following:

a. For a corporation: The president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit and either:

   (i) the facilities employ more than 250 persons or have a gross annual sales or expenditures exceeding $25 million (in second quarter 1980 dollars), or

   (ii) the delegation of authority to such representative is approved in advance by the Director;

b. For a partnership or sole proprietorship: a general partner or the proprietor, respectively;

c. For a municipality, State, Federal, or other public entity: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of U.S. EPA); or

d. The designated representative delegated with such authority and approved in advance by the Director.