



Permit Number: **R30-08500004-2011**  
Permittee: **Dominion Transmission, Inc.**  
Facility Name: **Craig Compressor Station**  
Permittee Mailing Address: **925 White Oaks Blvd, Bridgeport, WV 26330 ~~445 West Main Street,~~  
~~Clarksburg, WV 26301~~**

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*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.*

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Facility Location:	Smithville, Ritchie County, West Virginia
Facility Mailing Address:	Same as above
Telephone Number:	(304) 627-3225
Type of Business Entity:	Corporation
Facility Description:	Natural gas transmission facility
SIC Codes:	Primary 4922; Secondary NA; Tertiary NA
UTM Coordinates:	491.49 km Easting • 4324.68 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.*

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*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
EN01*	EN01	Reciprocating Engine/Integral Compressor; Ajax DPC-720	1986	869 HP	N/A
EN02*	EN02	Reciprocating Engine/Integral Compressor; Ajax DPC-720	1986	869 HP	N/A
EN03*	EN03	Reciprocating Engine/Integral Compressor; Ajax DPC-720	1987	869 HP	N/A
EN05*	S05	Caterpillar Emergency back-up Generator	2003	225HP	N/A
EN06*	S06	Caterpillar Emergency back-up Generator	2003	225HP	N/A
<a href="#">DEHY02*</a>	<a href="#">DEHY02</a>	<a href="#">Dehydrator Still Column</a>	2016	18 mmscf/day	<a href="#">2C (Thermal Oxidizer)</a>
	N/A	<a href="#">Dehydrator Flash Tank</a>			<a href="#">None**</a>
<del>DEHY01*</del>	<del>DEHY01</del>	<del>Dehydration unit still; Latoka</del>	<del>1984</del>	<del>25.0 mmscf/day</del>	<del>Flare (DEHY)</del>
<a href="#">RBR02*</a>	<a href="#">RBR02</a>	<a href="#">Dehydrator Reboiler</a>	<a href="#">2015</a>	<a href="#">0.75 MMBTU/hr</a>	<a href="#">N/A</a>
<del>RBR01*</del>	<del>RBR01</del>	<del>Dehydrator Reboiler; Latoka S.O. 4251</del>	<del>1984</del>	<del>1.0 MMBTU/hr</del>	<del>N/A</del>
<a href="#">2C</a>	<a href="#">2C</a>	<a href="#">Thermal Oxidizer</a>	<a href="#">2015</a>	<a href="#">3.2 MMBTU/hr</a>	<a href="#">N/A</a>
<del>DEHY*</del>	<del>DEHY (1C)</del>	<del>Dehydration unit still flare</del>	<del>1984</del>	<del>95% destruction efficiency</del>	<del>N/A</del>
TK04	TK04	Vertical antifreeze tank	2011	1000 gallon	N/A
TK10	TK10	Tri-Ethylene Glycol	2011	4200 gallon	N/A
TK11	TK11	Vertical drip gas tank	2011	4200 gallon	N/A
TK12	TK12	Vertical engine oil tank	2011	6000 gallon	N/A
TK13	TK13	Vertical Used Oil Tank	2002	1000 gallon	N/A
TK14	TK14	Vertical Wastewater Tank	2002	500 gallon	N/A

\* **This equipment burns or combusts pipeline quality natural gas only**

\*\* **Emissions from the flash tank are captured and recycled/returned to the plant by the facility compressor engines.**

## 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
R13-2497A	<a href="#">August 24, 2015</a> <del>September 27, 2002</del>
R13-2503	February 19, 2003

## 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

<b>CAAA</b>	Clean Air Act Amendments	<b>NSPS</b>	New Source Performance Standards
<b>CBI</b>	Confidential Business Information	<b>PM</b>	Particulate Matter
<b>CEM</b>	Continuous Emission Monitor	<b>PM<sub>10</sub></b>	Particulate Matter less than 10µm in diameter
<b>CES</b>	Certified Emission Statement	<b>pph</b>	Pounds per Hour
<b>C.F.R. or CFR</b>	Code of Federal Regulations	<b>ppm</b>	Parts per Million
<b>CO</b>	Carbon Monoxide	<b>PSD</b>	Prevention of Significant Deterioration
<b>C.S.R. or CSR</b>	Codes of State Rules	<b>psi</b>	Pounds per Square Inch
<b>DAQ</b>	Division of Air Quality	<b>SIC</b>	Standard Industrial Classification
<b>DEP</b>	Department of Environmental Protection	<b>SIP</b>	State Implementation Plan
<b>FOIA</b>	Freedom of Information Act	<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>HAP</b>	Hazardous Air Pollutant	<b>TAP</b>	Toxic Air Pollutant
<b>HON</b>	Hazardous Organic NESHAP	<b>TPY</b>	Tons per Year
<b>HP</b>	Horsepower	<b>TRS</b>	Total Reduced Sulfur
<b>lbs/hr or lb/hr</b>	Pounds per Hour	<b>TSP</b>	Total Suspended Particulate
<b>LDAR</b>	Leak Detection and Repair	<b>USEPA</b>	United States Environmental Protection Agency
<b>m</b>	Thousand	<b>UTM</b>	Universal Transverse Mercator
<b>MACT</b>	Maximum Achievable Control Technology	<b>VEE</b>	Visual Emissions Evaluation
<b>mm</b>	Million	<b>VOC</b>	Volatile Organic Compounds
<b>mmBtu/hr</b>	Million British Thermal Units per Hour		
<b>mmft<sup>3</sup>/hr or mmcf/hr</b>	Million Cubic Feet Burned per Hour		
<b>NA or N/A</b>	Not Applicable		
<b>NAAQS</b>	National Ambient Air Quality Standards		
<b>NESHAPS</b>	National Emissions Standards for Hazardous Air Pollutants		
<b>NO<sub>x</sub></b>	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 C.F.R. 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 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. **[40 C.F.R. §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 C.F.R. 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 C.F.R. §§ 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 C.F.R. § 82.158.

- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

**[40 C.F.R. 82, Subpart F]**

- 3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 C.F.R. § 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 C.F.R. § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.

**[40 C.F.R. 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]**

### **3.2. Monitoring Requirements**

- 3.2.1. N/A

### **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, 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., [45CSR13, R13-2497, 4.4.1.](#)]

- 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.]

- 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.]

### 3.5. 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 certification to the USEPA as required in 3.5.5 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, mailed first class or by private carrier 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 57<sup>th</sup> Street SE  
Charleston, WV 25304  
  
Phone: 304/926-0475  
FAX: 304/926-0478

**If to the US EPA:**

Associate Director  
Office of Enforcement and Permits Review  
(3AP12)  
U. S. Environmental Protection Agency  
Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

- 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 annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: [R3\\_APD\\_Permits@epa.gov](mailto:R3_APD_Permits@epa.gov). The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.  
**[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.

**[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. N/A

### **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. N/A

### **3.8. Emergency Operating Scenario**

For emergency situations which interrupt the critical supply of natural gas to the public, and which pose a life threatening circumstance to the customer, the permittee is allowed to temporarily replace failed engine(s) as long as all of the following conditions are met:

- a. The replacement engine(s) is only allowed to operate until repair of the failed engine(s) is complete, but under no circumstance may the replacement engine(s) operate in excess of sixty (60) days;
- b. Both the replacement engine(s) and the repaired failed engine(s) shall not operate at the same time with the exception of any necessary testing of the repaired engine(s) and this testing may not exceed five (5) hours;
- c. Potential hourly emissions from the replacement engine(s) are less than or equal to the potential hourly emissions from the engine(s) being replaced;
- d. Credible performance emission test data verifying the emission rates associated with the operation of the substitute engine shall be submitted to the Director within five (5) days;
- e. The permittee must provide written notification to the Director within five (5) days of the replacement. This notification must contain:
- i. Information to support the claim of life threatening circumstances to justify applicability of this emergency provision;
- ii. Identification of the engine(s) being temporarily replaced;
- iii. The design parameters of the replacement engine(s) including, but not limited to, the design horsepower and emission factors;
- iv. Projected duration of the replacement engine(s); and
- v. The appropriate certification by a responsible official.

**[45CSR§30-12.7]**

**4.0 Dehydration Reboiler [emission point ID(s): RBR02 ~~RBR01~~]**

**4.1. Limitations and Standards**

4.1.1. 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., 45CSR13, R13-2497, 4.1.4.d.]

4.1.2. The MDHI of RBR02, shall not exceed 0.75 mmBtu/hr and shall only be fired by natural gas.

[45CSR13, R13-2497, 4.1.4.a.]

4.1.3. The maximum emissions from the Reboiler' s combustion exhaust shall not exceed the limits given in the following table

<u>Pollutant</u>	<u>Hourly (lb/hr)</u>	<u>Annual (ton/yr)</u>
<u>CO</u>	<u>0.09</u>	<u>0.41</u>
<u>NO<sub>x</sub></u>	<u>0.11</u>	<u>0.48</u>

\*Note: As the annual emissions are based on 8,760 hours of operation, there is no annual limit on hours of operation or natural gas combusted on an annual basis for the Reboiler – [45CSR13, R13-2497, 4.1.4.c.,]

[45CSR13, R13-2497, 4.1.4.b. and c.]

4.1.4. In accordance with the information filed in Permit Application R13-2497A, the emission units/sources (i.e., RBR02) identified under Table 1.0 of permit R13-2497A (Section 1.1. table of this permit), shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants, shall not exceed the listed maximum design capacities, shall use the specified control devices, and comply with any other information provided under Table 1.0.

[45CSR13, R13-2497, 4.1.1.]

**4.2. Monitoring Requirements**

4.2.1. ~~N/A~~ For the purposes of demonstrating compliance with the visible emission standard set forth in 4.1.1., the permittee shall do the following:

a. At such reasonable times as the Secretary may designate, the permittee shall conduct Method 9 emission observations for the purpose of demonstrating compliance with 4.1.1. of this permit. Method 9 shall be conducted in accordance with 40 CFR 60 Appendix A.

b. The permittee shall maintain records of all monitoring data required by section 4.2.1 of this permit 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 (e.g., 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.

- c. [Any deviation\(s\) from the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 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.](#)

[\[45CSR13, R13-2497, 4.2.2.\]](#)

**4.3. Testing Requirements**

- 4.3.1. N/A

**4.4. Recordkeeping Requirements**

- 4.4.1. N/A

**4.5. Reporting Requirements**

- 4.5.1. N/A

**4.6. Compliance Plan**

- 4.6.1. N/A

**5.0 Dehydration Unit and Thermal Oxidizer Flare [emission point ID(s): DEHY02 01, 2C DEHY ~~(1C)~~]**

**5.1. Limitations and Standards**

- 5.1.1. 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 as indicated in Table I below:

Table I: Factor, F, for Determining Maximum Allowable Particulate Emissions

Incinerator Capacity:	Factor F
A. Less than 15,000 lbs/hr	5.43
B. 15,000 lbs/hr or greater	2.72

Calculation for PM Emissions:

$$(5.43) \times 0.11 \text{ tons/hr} = 0.59 \text{ lb/hr} \text{ (~~67.4 cf/min~~)} \times \text{(~~60 min/hr~~)} \times \text{(~~0.0675 lb/cf~~)} \times \text{(~~ton/2000 lb~~)}$$
$$= 0.7418 \text{ lb/hr}$$

[45CSR§6-4.1., 45CSR13, R13-2497, 4.1.5.h.1. B-3.] [2C DEHY]

- 5.1.2. Emission of Visible Particulate Matter --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.

[45CSR§6-4.3] [45CSR13, R13-2497, 4.1.5.h.2. B-3.] [2C DEHY]

The provisions above, (i.e., 45CSR§6-4.3.) 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.  
[45CSR6 §4.4., 45CSR13, R13-2497, 4.1.5.h.3.] [2C]

- 5.1.3. No person shall cause, suffer, allow or permit 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.

[45CSR§6-4.5., 45CSR13, R13-2497, 4.1.5.h.4.] [2C DEHY]

- 5.1.4. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.

[45CSR§6-4.6., 45CSR13, R13-2497, 4.1.5.h.5.] [2C DEHY]

- 5.1.5. In accordance with the information filed in Permit Application R13-2497A, the emission units/sources (i.e., DEHY02 and 2C) identified under Table 1.0 of permit R13-2497A (Section 1.1. table of this permit), shall be installed, maintained, and operated so as to minimize any fugitive escape of pollutants, shall not exceed the listed maximum design capacities, shall use the specified control devices, and comply with any other information provided under Table 1.0. In accordance with the information filed in permit application R13-2497, the flare control device, 1C, shall be modified, operated and maintained to achieve, at a minimum, a 95% reduction of hazardous air pollutants (HAP).

[45CSR13, R13-2497, 4.1.1 A-1.]

- 5.1.6. The maximum wet natural gas throughput to the Inegral triethylene glycol (TEG) Glycol Dehydration Unit (GDU), identified as DEHY02, shall not exceed 18 mmscf/day or 6,570 mmscf/year. ~~The maximum amount of wet gas processed through the still column shall not exceed 25.0 MMscf/day or 9,125 MMscf/year. Compliance with the processing limit shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of the wet gas processed at any given time for the previous twelve (12) consecutive calendar months.~~  
**[45CSR13, R13-2497, 4.1.2, A.2.] [DEHY01]**

- 5.1.7. The Glycol Dehydration Unit, identified as DEHY02, shall meet the following requirements:

- a. The maximum emissions from the Glycol Dehydrator Regeneration Still Vent, as emitted after combustion at the thermal oxidizer (2C), shall not exceed the limits given in the following table:

Glycol Dehydrator Regeneration Still Vent Controlled Emission Limits <sup>(1)</sup>

<u>Pollutant</u>	<u>PPH</u>	<u>TPY</u>
<u>VOC</u>	<u>6.83</u>	<u>29.91</u>
<u>Benzene</u>	<u>0.05</u>	<u>0.20</u>
<u>Ethylbenzene</u>	<u>0.04</u>	<u>0.19</u>
<u>n-Hexane</u>	<u>0.05</u>	<u>0.23</u>
<u>Toluene</u>	<u>0.26</u>	<u>1.14</u>
<u>Xylene</u>	<u>1.79</u>	<u>7.82</u>
<u>Total HAPs</u>	<u>2.27</u>	<u>9.94</u>

(1) Emissions based on GRI-GLYCALC Version 4.0 using wet gas throughputs as limited under 5.1.6. and including a 20% safety factor.

- b. Vapors captured from the Glycol Dehydrator Flash Tank shall be captured by the plant compression and recycled back into the plant using a closed vent process.

~~The limitations set forth in conditions 5.1.8. through 5.1.10. (Specific Requirements A.4. through A.9. of R13-2497) are established to ensure that the permittee operates and maintains a control device that reduces hazardous air pollutant emissions below the applicability threshold specified in 40 CFR Part 63, Subpart HH.~~

**[45CSR13, R13-2497, 4.1.3.a. and b. A.3.] [DEHY 01]**

- 5.1.8. The permittee shall operate the Questor Q100 Thermal Oxidizer, identified as 2C, according to the following requirements:

- a. The combustion exhaust emissions from the Thermal Oxidizer (does not include pass-through VOC/HAP emissions from the GDU Regenerator Still Vent) shall not exceed the following limits:

Thermal Oxidizer Emission Limits

<u>Pollutant</u>	<u>Hourly (lb/hr)</u>	<u>Annual (ton/yr)</u>
<u>CO</u>	<u>0.99</u>	<u>4.35</u>
<u>NO<sub>x</sub></u>	<u>0.22</u>	<u>0.98</u>

- b. The Thermal Oxidizer shall have an MDHI not to exceed 3.2 mmBtu/hr;
- c. The pilot flame shall be present at all times when the thermal oxidizer is operating, as determined by the methods specified in section 5.2.6.;
- d. The Thermal Oxidizer shall be designed for and operated with no visible emissions as determined by the methods specified in permit sections 5.2.1. and 5.4.3. except for either (1) or (2):
  - (1) periods not to exceed a total of one minute during any 15 minute period, determined on monthly basis; or
  - (2) periods not to exceed a total of 2 minutes during any hour, determined on a quarterly basis if the enclosed combustion device installed was a model tested under §60.5413(d) which meets the criteria in §60.5413(d)(11).
- e. The Thermal Oxidizer shall be operated at all times when emissions may be vented to it. To ensure compliance with 5.1.8.e., the permittee shall monitor in accordance with 5.2.6.;
- f. The Thermal Oxidizer shall be designed, operated, and maintained according to good engineering practices or manufacturing recommendations so as to achieve, at a minimum, a hydrocarbon combustion rate of 95.0%; and
- g. The permittee shall operate and maintain the Thermal Oxidizer according to the manufacturer's specifications for operating and maintenance requirements to maintain the guaranteed control efficiency given under 5.1.8.f. To demonstrate compliance with section 5.1.8.g, the permittee shall maintain records of the manufacturer's specifications for operating and maintenance requirements to maintain the control efficiency.

**[45CSR13, R13-2497, 4.1.5.a., b., c., d., e., f., and g. ~~A.4., A.6., A.7., and A.8.~~]**

~~In this section “this part” means 40 CFR 60, “this subpart” means 40 CFR §60.18 (section numbers match those of §60.18).~~

~~The glycol dehydration still column emission point shall be equipped with a flare to control organic compound emissions. The flare shall be fired with natural gas and shall be operated with 95% control efficiency or greater, and in accordance with 40 C.F.R. § 60.18 “General Control Device Requirements” paragraphs (e) through (f) below:~~

- ~~(e) (1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.~~
- ~~(2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).~~
- ~~(3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (e)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (e)(4) of this section, or adhering to the requirements in paragraph (e)(3)(i) of this section.~~

- ~~(i) (A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity,  $V_{max}$ , as determined by the following equation:~~

$$V_{max} = (X_{H_2} - K_1) \times K_2$$

~~Where:~~

~~$V_{max}$  = Maximum permitted velocity, m/sec.~~

~~$K_1$  = Constant, 6.0 volume percent hydrogen.~~

~~$K_2$  = Constant, 3.9(m/sec)/volume percent hydrogen.~~

~~$X_{H_2}$  = The volume percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in §60.17).~~

- ~~(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.~~

- ~~(ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam assisted or air assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.~~

- ~~(4) (i) Steam assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (e)(4) (ii) and (iii) of this section.~~

- ~~(ii) Steam assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).~~

- ~~(iii) Steam assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity,  $V_{max}$ , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.~~

- ~~(5) Air assisted flares shall be designed and operated with an exit velocity less than the velocity,  $V_{max}$ , as determined by the method specified in paragraph (f)(6).~~

- ~~(6) Flares used to comply with this section shall be steam assisted, air assisted, or nonassisted.~~

- ~~(d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts (any other 40 CFR 60 subpart, not 40 CFR § 60.18) will provide provisions~~

~~stating how owners or operators of flares shall monitor these control devices.~~

~~(e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.~~

~~(f) (1) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.~~

~~(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.~~

~~(3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:~~

$$H_T = K \sum_{i=1}^n C_i H_i$$

Where:

~~$H_T$  = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.~~

~~$K$  = Constant =~~

$$1.740 \times 10^{-7} \left( \frac{1}{\text{ppm}} \right) \left( \frac{\text{g mole}}{\text{scm}} \right) \left( \frac{\text{MJ}}{\text{kcal}} \right)$$

~~where the standard temperature for (g mole/scm) is 20 °C.~~

~~$C_i$  = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946 77 or 90 (Reapproved 1994) (Incorporated by reference as specified in §60.17); and~~

~~$H_i$  = Net heat of combustion of sample component i, kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382 76 or 88 or D4809 95 if published values are not available or cannot be calculated.~~

~~(4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.~~

~~(5) The maximum permitted velocity,  $V_{\max}$ , for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation:~~

$$\text{Log}_{10}(V_{\max}) = (H_T + 28.8)/31.7$$

Where:

~~$V_{\max}$  = Maximum permitted velocity, M/sec.~~

~~28.8 = Constant.~~

~~31.7 = Constant.~~

~~$H_T$  = The net heating value as determined in (f)(3) of this section~~

~~(6) The maximum permitted velocity,  $V_{max}$ , for air assisted flares shall be determined by the following equation:~~

$$\del V_{max} = 8.706 + 0.7084(H_T)$$

~~Where:~~

~~$V_{max}$  = Maximum permitted velocity, m/sec.~~

~~8.706 = Constant.~~

~~0.7084 = Constant.~~

~~$H_T$  = The net heating value as determined in (f)(3) of this section.~~

5.1.9. Closed Vent Requirements

The permittee shall meet the following requirements for delivering vapors to the Thermal Oxidizer:

- a. The closed vent system shall be designed and operated: (a) with no detectable emissions as determined using olfactory, visual, and auditory inspections; and (b) to route all gases, vapors, and fumes emitted from the system to the applicable control device in order to be in compliance with minimum control efficiency requirements for each control device; or (c) route all gases, vapors, and fumes emitted from the system to a process as required;
- b. If a bypass line exists, the permittee shall either: (a) secure the bypass valve with a car-seal or a lock-and-key type configuration in the non-diverting position to prevent inadvertent bypass; or (b) install, calibrate, maintain, and operate a flow indicator at the inlet to the bypass device that could divert the stream away from the control device or process to the atmosphere that sounds an alarm, or initiates notification via remote alarm to the nearest field office, when the bypass device is open such that the stream is being, or could be, diverted away from the control device or process to the atmosphere; and
- c. Low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and safety devices are not subject to requirement (b).

~~The flare controlling the glycol dehydration still column shall be designed and operated in a manner that will ensure no visible emissions, as determined by Method 22 of Appendix A as stated in 40 C.F.R. § 60.18(f), except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours. Records shall be maintained in accordance with Section 5.4.4 stating the date and time of each visible emission check and whether visible emissions were observed.~~

~~[45CSR13, R13-2497, 4.1.6. A.5.]~~

- 5.1.10. The existing GDU shall cease operating upon startup of the new GDU and the existing GDU shall be rendered inoperable by cutting all fuel and process gas lines to the unit within ninety (90) days of the startup of the new GDU.

~~The flare control device (1C) shall only burn off gases from the dehydration still column emission point and sufficient natural gas to meet the requirements of 5.1.8.(c)(3)(ii).~~

~~[45CSR13, R13-2497, 4.1.7. A.9.]~~

- 5.1.11. ~~Reserved. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an in stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in 45CSR§10-4.1.a through 45CSR§10-4.1.e. [45CSR§10-4.1., 45CSR13, R13-2497, B.4.]~~
- 5.1.12. ~~Reserved. No person shall cause, suffer, allow or permit the combustion of any refinery process gas stream or any other process gas stream that contains hydrogen sulfide in a concentration greater than 50 grains per 100 cubic feet of gas except in the case of a person operating in compliance with an emission control and mitigation plan approved by the Director and USEPA. In certain cases very small units may be considered exempt from this requirement if, in the opinion of the Director, compliance would be economically unreasonable and if the contribution of the unit to the surrounding air quality could be considered negligible. [45CSR§10-5.1., 45CSR13, R13-2497, B.4.]~~
- 5.1.13. The permittee has defined the facility as a minor source of HAPs for MACT applicability purposes. As a result, the subject facility shall conduct monitoring, testing, and reporting as specified below in order to provide adequate justification for maintaining minor source status. This requirement shall in no way restrict the permittee from conducting more frequent testing to quantify emissions increases. [40CFR§63.10(b)(3); 45CSR34]
- 5.1.14. The owner or operator of an affected area source that is not located in an Urban-1 county, as defined in §63.761, the construction or reconstruction of which commences ~~on or after~~ before July 8, 2005, shall achieve compliance with the provisions of this subpart (40 CFR 63 Subpart HH) immediately upon initial startup. ~~no later than January 5, 2009.~~ [40CFR§63.760(f)(6) (5)(ii); 45CSR34]
- 5.1.15. **40CFR §63.764 General standards** (note the following section numbers match those of §63.764)
- (a) Table 2 of the Part 63 Subpart HH specifies the provisions of subpart A (General Provisions) of Part 63 that apply and those that do not apply to owners and operators of affected sources subject to this subpart.
- (b) All reports required under this subpart shall be sent to the Administrator at the appropriate address listed in §63.13. Reports may be submitted on electronic media.
- ~~(d) Except as specified in paragraph (e)(1) of this requirement, the owner or operator of an affected source located at an existing or new area source of HAP emissions shall comply with the applicable standards specified in paragraph (d) of this section.~~
- ~~(2) Each owner or operator of an area source not located in a UA plus offset and UC boundary (as defined in §63.761) shall comply with paragraphs (d)(2)(i) through (iii) of this requirement.~~
- ~~(i) Determine the optimum glycol circulation rate using the following equation:~~

$$L_{OPT} = 1.15 \times 3.0 \frac{\text{gal TEG}}{\text{lb H}_2\text{O}} \times \left( \frac{F \times (I - O)}{24 \text{ hr/day}} \right)$$

Where:

$L_{OPT}$  = Optimal circulation rate, gal/hr.

~~F = Gas flowrate (MMSCF/D).~~

~~I = Inlet water content (lb/MMSCF).~~

~~O = Outlet water content (lb/MMSCF).~~

~~3.0 = The industry accepted rule of thumb for a TEG to water ratio (gal TEG/lb H<sub>2</sub>O).~~

~~1.15 = Adjustment factor included for a margin of safety.~~

~~(ii) Operate the TEG dehydration unit such that the actual glycol circulation rate does not exceed the optimum glycol circulation rate determined in accordance with paragraph (d)(2)(i) of this section. If the TEG dehydration unit is unable to meet the sales gas specification for moisture content using the glycol circulation rate determined in accordance with paragraph (d)(2)(i), the owner or operator must calculate an alternate circulation rate using GRI GLYCalc™, Version 3.0 or higher. The owner or operator must document why the TEG dehydration unit must be operated using the alternate circulation rate and submit this documentation with the initial notification in accordance with §63.775(e)(7).~~

~~(iii) Maintain a record of the determination specified in paragraph (d)(2)(ii) in accordance with the requirements in §63.774(f) and submit the Initial Notification in accordance with the requirements in §63.775(e)(7). If operating conditions change and a modification to the optimum glycol circulation rate is required, the owner or operator shall prepare a new determination in accordance with paragraph (d)(2)(i) or (ii) of this section and submit the information specified under §63.775(e)(7)(ii) through (v).~~

(e) *Exemptions.* (1) The owner or operator [of an area source](#) is exempt from the requirements of paragraph (d) of this section if the criteria listed in paragraph (e)(1)([i](#) or (ii) of this section are met, except that the records of the determination of these criteria must be maintained as required in §63.774(d)(1).

[\(i\) The actual annual average flowrate of natural gas to the glycol dehydration unit is less than 85 thousand standard cubic meters per day, as determined by the procedures specified in §63.772\(b\)\(1\) of this subpart; or](#)

(ii) 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.

[\[45CSR13, R13-2497, 4.1.3.d, 40CFR§63.764\(a\), \(b\), \(d\), \(e\); 45CSR34\]](#)

5.1.16. ~~Reserved. If the annual emissions of benzene from the dehydration unit ever equals or exceeds 0.90 megagram per year (1 tpy) as calculated per §63.772(b)(2) (requirement 5.3.3.), the permittee shall comply with section d(2)(i) through (iii) of §63.764 (requirement 5.1.15.)~~  
~~[45CSR§30-5.1.e.]~~

5.1.17. Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment (i.e., Thermal Oxidizer “2C”) listed in Section 1.0 of permit R13-2497, 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., 45CSR13, R13-2497, 4.1.8.]

## 5.2. Monitoring Requirements

### 5.2.1. Thermal Oxidizer Visibility Monitoring

To demonstrate compliance with the visible emissions requirements of section 5.1.8.d., the permittee shall conduct the following checks and/or opacity monitoring and recordkeeping:

a. The visible emission check shall determine the presence or absence of visible emissions. The observations shall be conducted according to Section 11 of EPA Method 22. 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. The observation period shall be:

(1) [reserved]

(2) a minimum of 15 minutes if demonstrating compliance with 5.1.8.d.(1).; or

(3) a minimum of 1 hour if demonstrating compliance with 5.1.8.d.(2).

b. The visible emission check shall be conducted initially within 180 days of start-up to demonstrate compliance;

c. If during this visible emission check or at any other time visible emissions are observed, compliance with section 5.1.8.d. shall be determined by conducting opacity tests in accordance with Method 9 of 40 CFR 60, Appendix A; and

~~Visual emission checks of each emission point specified shall be conducted monthly. If during these checks or at any other time visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with Method 9 of 40 CFR 60, Appendix A. Records shall be maintained on site for a period of no less than five (5) years stating the date and time of each visible emission check, whether visible emissions were observed, the opacity observed, and the corrective measures taken. Visible emission checks shall not be required during start ups, shut downs and malfunctions.~~

~~[45CSR13, R13-2497, 4.2.5.a., b., and c. 45CSR§30-5.1.e.] [2C DEHY]~~

5.2.2. ~~Reserved~~ At a minimum of once per year, the permittee shall sample and analyze the inlet gas stream to the station utilizing gas chromatography for the presence of Sulfur. Proof of compliance with the 2000 ppm<sub>v</sub> limit will be considered demonstrated if the gas chromatograph shows a total sulfur content of 4.853 grains/100ft<sup>3</sup> or less. Records shall be maintained in accordance with Section 5.4.4 stating the date and time of analysis and the sulfur content of the gas sampled.  
~~[45CSR13, R13-2497, B.5.]~~

5.2.3. ~~Reserved. At a minimum of once per year, the permittee shall sample and analyze the inlet gas stream (to the station) utilizing gas chromatography for the presence of H<sub>2</sub>S. Proof of compliance with the 50 grains/100ft<sup>3</sup> limit will be considered demonstrated if the gas chromatograph shows a total H<sub>2</sub>S content of 0.25 grains/100ft<sup>3</sup> or less. Records shall be maintained in accordance with Section 5.4.4 stating the date of analysis and the hydrogen sulfide content of the gas sampled.~~

~~[45CSR§30-5.1.e., 45CSR13, R13-2497, B.6.]~~

5.2.4. ~~Reserved. In order to demonstrate compliance with the area source status, claimed within 5.1.5., 5.1.7., 5.1.13., as well as the 1-ton per year benzene exemption provided under 5.1.15.(c)(1)(ii) using GRI-GLYCalc V3 or higher, the dehydration system must be accurately defined by monitoring and recording actual operating parameters associated with the dehydration system. These parameters shall be measured periodically, with the exception of 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. Periodically, shall be interpreted as sufficient enough to reflect annual variation and, therefore, this term is operating parameter and site dependent.~~

~~The WV Division of Air Quality requires the following actual operating parameters be measured or assumed to equal the default values listed below in order to satisfy this monitoring requirement when using the Gas Analysis and Process Data, GLYCalc emission modeling method:~~

- ~~● Natural Gas Flowrate:
  - ~~○ number of days operated per year,~~
  - ~~○ annual daily average (MMscf/day), and~~
  - ~~○ maximum design capacity (MMscf/day)~~~~
- ~~● Absorber temperature and pressure~~
- ~~● Lean glycol circulation rate~~
- ~~● Glycol pump type~~
- ~~● Flash tank temperature and pressure, if applicable~~
- ~~● Stripping Gas flow rate, if applicable~~
- ~~● 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.~~

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

- ~~● Dry Gas water content at a point directly after exiting the dehydration column and before any additional separation points or assume pipeline quality at 7 lb H<sub>2</sub>O / MMscf.~~
- ~~● Lean glycol water content if not directly measured may use the default value of 1.5 % water as established by GRI.~~
- ~~● Lean glycol circulation rate may be estimated using the recirculation ratio of 3 gal TEG / lb H<sub>2</sub>O removed.~~

~~[45CSR§30-5.1.e]~~

5.2.5. **GDU Wet Gas Throughput**

For the purposes of demonstrating compliance with the maximum wet gas throughput limit set forth in 5.1.6., the permittee shall monitor daily, monthly and rolling twelve month records of the wet gas throughput of the Glycol Dehydration Unit.

[45CSR13, R13-2497, 4.2.1.]

**5.2.6. Thermal Oxidizer Pilot Flame Monitoring**

To demonstrate compliance with the pilot flame requirements of section 5.1.8.c, the permittee shall follow both (a) and (b), or as an alternative, follow just (c). Further, the permittee is eligible for an exemption to the requirements under (a) through (c) as given under (d):

- a. At a minimum frequency of once per calendar month when the GDU operates at least one consecutive 24 hour period during the month, conduct visual inspections to confirm that the pilot is lit when vapors are being routed to the enclosed combustion device and that the continuous burning pilot flame is operating properly;
- b. For any absence of pilot flame, or other indication of smoking or improper equipment operation, you must ensure the equipment is returned to proper operation as soon as practicable after the event occurs. At a minimum, you must: (1) Check the air vent for obstruction. If an obstruction is observed, you must clear the obstruction as soon as practicable. (2) Check for liquid reaching the combustor;
- c. As an alternative, the permittee may demonstrate compliance with the pilot flame requirements of 5.1.8.c. by continuously monitoring using a thermocouple or any other equivalent device to detect the presence of a flame when emissions are vented to it; and
- d. The permittee is exempt from the pilot flame requirements of paragraphs (a) and (b) of this section if the permittee installed an enclosed combustion device model that was tested under §60.5413(d) which meets the criteria in § 60.5413(d)(11). To demonstrate compliance with section 5.2.6.d, the permittee shall maintain a record of the performance test results conducted by the manufacturer.

**[45CSR13, R13-2497, 4.2.3.]**

**5.2.7. Closed Vent Monitoring**

To demonstrate compliance with the closed vent system requirements of section 5.1.9, the permittee shall:

a. **Initial requirements**

Conduct an initial visual, olfactory, and auditory inspection for defects that could result in air emissions within 180 days of start-up. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices.

- (i) The annual inspection shall include the bypass inspection, conducted according to paragraph (c) of this section.
- (ii) In the event that a leak or defect is detected, you must repair the leak or defect as soon as practicable. Grease or another applicable substance must be applied to deteriorating or cracked gaskets to improve the seal while awaiting repair.
- (iii) Delay of repair of a closed vent system for which leaks or defects have been detected is allowed if the repair is technically infeasible without a shutdown, or if you determine that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. You must complete repair of such equipment by the end of the next shutdown.

b. **Continuous requirements**

Conduct an annual visual, olfactory, and auditory inspection for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in piping; loose connections; liquid leaks; or broken or missing caps or other closure devices.

- (i) The annual inspection shall be conducted within 365 calendar days from the date of the previous inspection or earlier.
- (ii) The annual inspection shall include the bypass inspection, conducted according to paragraph (c) of this section.

**c. Bypass inspection**

Visually inspect the bypass valve during the initial and annual inspection for the presence of the car seal or lock-and-key type configuration to verify that the valve is maintained in the non-diverting position to ensure that the vent stream is not diverted through the bypass device. If an alternative method is used, conduct the inspection of the bypass as described in the operating procedures.

**d. Unsafe to inspect requirements**

You may designate any parts of the closed vent system as unsafe to inspect if the requirements in paragraphs (i) and (ii) of this section are met. Unsafe to inspect parts are exempt from the inspection requirements of paragraphs (a) and (b) of this section.

- (i) You determine that the equipment is unsafe to inspect because inspecting personnel would be exposed to an imminent or potential danger as a consequence of complying with the requirements.
- (ii) You have a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

**e. Difficult to inspect requirements**

You may designate any parts of the closed vent system as difficult to inspect, if the requirements in paragraphs (i) and (ii) of this section are met. Difficult to inspect parts are exempt from the inspection requirements of paragraphs (a) and (b) of this section.

- (i) You determine that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface.
- (ii) You have a written plan that requires inspection of the equipment at least once every 5 years.

**[45CSR13, R13-2497, 4.2.6.]**

- 5.2.8. The permittee shall meet all applicable monitoring, compliance demonstration, recording and reporting requirements given in 45CSR2, 45CSR6, and 40 CFR 63, Subpart HH.**

**[45CSR13, R13-2497, 4.2.8.]**

### **5.3. Testing Requirements**

- 5.3.1. At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3.1., the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations or minimum control device efficiencies established in permit R13-2497 (see sections 4. and 5 of this permit) and/or applicable regulations.**

~~The Director may require the permittee to conduct flare compliance assessment to demonstrate compliance with the flare requirements of condition 5.1.8. and the flare design evaluation. This compliance assessment testing shall be conducted in accordance with Test Method 18 for organics and Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60, as appropriate, or other equivalent testing approved in writing by the Director. Also, Test Method 18 may require the permittee to conduct Test Method 4 in conjunction with Test Method 18.~~

~~[45CSR13, R13-2497, 4.3.1. 45CSR§30-5.1.e.]~~

- 5.3.2. In order to demonstrate compliance with 5.1.7.a., upon request of the Director, the permittee shall demonstrate compliance with the VOC/HAP emissions limits using GLYCalc Version 3.0 or higher. The permittee shall sample in accordance with GPA Method 2166 and analyze the samples utilizing the extended GPA Method 2286 as specified in the GRI-GLYCalc V4 Technical Reference User Manual and Handbook.

~~Within the 3<sup>rd</sup> year of this permit term, 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.~~

~~[45CSR13, R13-2497, 4.3.2. 45CSR§30-5.1.e.]~~

- 5.3.3. 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 - (note the following section numbers match those of §63.772):

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

(b) *Determination of glycol dehydration unit flowrate, ~~or~~ benzene emissions, or BTEX.* The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit natural gas flowrate, ~~or benzene emissions, or BTEX emissions. to meet the criteria for an exemption from control requirements under §63.764(e)(1) (requirement 5.1.15).~~

(1) The determination of actual flowrate of natural gas to a glycol dehydration unit shall be made using the procedures of either paragraph (b)(1)(i) or (b)(1)(ii) of this section.

(i) The owner or operator shall install and operate a monitoring instrument that directly measures natural gas flowrate to the glycol dehydration unit with an accuracy of plus or minus 2 percent or better. The owner or operator shall convert 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.

(ii) The owner or operator shall document, to the Administrator's satisfaction, the actual annual average natural gas flowrate to the glycol dehydration unit.

(2) The determination of actual average benzene or BTEX emissions from a glycol dehydration unit shall be made using the procedures of either paragraph (b)(2)(i) or (ii) 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 or BTEX 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 the Gas Research Institute (GRI) report entitled “Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions” (GRI-95/0368.1); or

(ii) The owner or operator shall determine an average mass rate of benzene or BTEX emissions in kilograms per hour through direct measurement using the methods in §63.772(a)(1)(i) or (ii), or an alternative method according to §63.7(f). Annual emissions in kilograms per year shall be determined by multiplying the mass rate by the number of hours the unit is operated per year. This result shall be converted to megagrams per year.

*Compliance with this monitoring and testing requirement shall be streamlined by demonstrating compliance with the monitoring specified within 5.2.4, and the testing provision of 5.3.2.*

**[40CFR§63.772 (b)(2)(i), ~~45CSR34~~]**

5.3.4. The permittee shall meet all applicable performance testing requirements given in 45CSR2, 45CSR6, and 40 CFR 63, Subpart HH. [45CSR13, R13-2497, 4.3.3.]

#### **5.4. Recordkeeping Requirements**

5.4.1. ~~Reserved. The permittee shall record, in accordance with Section 5.4.4, the date, time and duration of any occurrence of pilot flame absence for the flare control device, 1C, each month during dehydration reboiler operation. If the pilot flame was operational for the entire month, the permittee shall note in the records that the pilot flame was operational the entire month. [45CSR13, R13-2497, B.1.]~~

5.4.2. ~~Reserved. Compliance with the design and operating conditions set forth in Sections 5.1.8.(e)(3)(ii) and 5.1.8.(f)(4), (f)(5) and (f)(6) shall be determined by maintaining monthly design records/calculations indicating the gas flare flow rate and the maximum allowable flare exit gas velocity. [45CSR13, R13-2497, B.2.]~~

5.4.3. For the purpose of demonstrating compliance with the visible emissions and opacity requirements (sections 5.1.2 & 5.2.1), the permittee shall maintain records of the visible emission opacity tests and checks. The permittee shall maintain records of all monitoring data required by section 5.2.1, 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, ~~and~~ 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 (e.g., 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. For an emission unit out of service during the ~~normal monthly~~ evaluation, the record of observation may note “out of service” (O/S) or equivalent. **[45CSR13, R13-2497, 4.2.5.d. 45CSR§30-5.1.e.]**

5.4.4. ~~Reserved. All required records pursuant to permit R13-2497 shall be maintained on site for a period of five (5) years, shall be certified by a responsible official, and shall be made available to the Director or his/her duly authorized representative upon request.~~

~~[45CSR13, R13-2497, B.8]~~

5.4.5. ~~Reserved. The permittee shall maintain a record of the wet natural gas throughput through the dehydration systems to demonstrate compliance with section 5.1.6 of this permit. Said records shall be maintained on site for a period of five (5) years. Said records shall be made available to the Director of the Division of Air Quality of his/her duly authorized representative upon request and shall be certified by a responsible official upon submittal.~~

~~[45CSR§30-5.1.c.]~~

**5.4.6. Thermal Oxidizer Pilot Flame Record-keeping**

For the purpose of demonstrating compliance with the continuous pilot flame requirements in 5.1.8.c., the permittee shall maintain records of the times and duration of all periods when the pilot flame was not present and that vapors were vented to the device:

a. If the permittee is demonstrating compliance to 5.2.6. with visual inspections, the permittee shall maintain records of the inspections; and

b. If the permittee is demonstrating compliance to 5.2.6. with an enclosed combustion device model that was tested under the conditions of §60.5413(d), a record shall be maintained of the performance test results.

**[45CSR13, R13-2497, 4.2.4.]**

**5.4.7. Closed Vent Recordkeeping**

To demonstrate compliance with the closed vent monitoring requirements in 5.2.7., records shall be maintained of:

a. The initial compliance requirements;

b. Each annual visual inspection conducted to demonstrate continuous compliance, including records of any repairs that were made as a result of the inspection;

c. If you are subject to the bypass requirements, the following records shall also be maintained:

(i) Each inspection or each time the key is checked out or a record each time the alarm is sounded; and

(ii) Each occurrence that the control device was bypassed. If the device was bypassed, the records shall include the date, time, and duration of the event and shall provide the reason that the event occurred. The record shall also include the estimate of emissions that were released to the environment as a result of the bypass.

d. Any part of the system that has been designated as "unsafe to inspect" in accordance with 5.2.7.d. or "difficult to inspect" in accordance with 5.2.7.e.

**[45CSR13, R13-2497, 4.2.7.]**

5.4.8. Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment (i.e., Thermal Oxidizer “2C”) listed in Section 1.0 of permit R13-2497, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures. [\[45CSR13, R13-2497, 4.4.2.\]](#)

5.4.9. Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment (i.e., Thermal Oxidizer “2C”) listed in Section 1.0 of permit R13-2497, 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.

[\[45CSR13, R13-2497, 4.4.3.\]](#)

5.4.10. An owner or operator of a glycol dehydration unit that meets the exemption criteria in 40 CFR §63.764(e)(1)(i) or §63.764(e)(1)(ii) shall maintain the records specified in paragraph (d)(1)(i) or paragraph (d)(1)(ii) of this section, (i.e., §63.774(d)(1)) as appropriate, for that glycol dehydration unit.

- a. The actual annual average natural gas throughput (in terms of natural gas flowrate to the glycol dehydration unit per day) as determined in accordance with §63.772(b)(1), or
- b. The actual average benzene emissions (in terms of benzene emissions per year) as determined in accordance with §63.772(b)(2).

[\[40CFR§63.774\(d\)\(1\); 45CSR34\]](#)

5.4.11. The permittee shall meet all applicable record-keeping requirements given in 45CSR2, 45CSR6, and 40 CFR 63, Subpart HH including but limited to:  
[\[45CSR13, R13-2497, 4.4.4.\]](#)

## 5.5. Reporting Requirements

- 5.5.1. Any ~~deviation~~ violation(s) of the allowable visible emission requirement for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 per section 5.2.1. 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.

[45CSR13, R13-2497, 4.5.1. 45CSR§30-5.1.e.]

- 5.5.2. Any bypass event of the registered control device (i.e., Thermal Oxidizer “2C”) 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 date of the bypass, the estimate of VOC emissions released to the atmosphere as a result of the bypass, the cause or suspected cause of the bypass, and any corrective measures taken or planned. ~~Any violation(s) of the flare design and operation criteria in Section 5.1.8. shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but within ten (10) calendar days.~~

[45CSR13, R13-2497, 4.5.2. 45CSR§30-5.1.e.]

- 5.5.3. Any time the air pollution control device is not operating when emissions are vented to it, shall 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 discovery.

[45CSR13, R13-2497, 4.5.3.]

~~The permittee shall submit by March 31<sup>st</sup> of the following year, an emission summary for the dehydration unit (DEHY01), which incorporates the wet gas testing results required by 5.3.2. The permittee shall also supply a copy of the most recent report within the facility’s subsequent Title V renewal application. These reports shall include an actual annual average emission estimate for the calendar year of the sample, modeled using GLYCalc V3 or higher software, which incorporates site specific parameters measured in accordance with 5.2.4. The permittee shall also supply all supporting documentation where site specific operating parameters are tabulated to define the annual average values. The report shall incorporate a copy of the lab analysis obtained from the wet gas testing as well as a description of how and where the sample was taken. The report shall include a reference to all sampling and analytical methods utilized. Additionally, the permittee shall identify where the compressor station is located with respect to a custody transfer point, which is referenced within 40 CFR 63, subpart HH as the point where the gas enters into a natural gas transmission and/or storage pipeline. This report shall be signed by a responsible official upon submittal.~~

[45CSR§30-5.1.e.]

## 5.6. Compliance Plan

- 5.6.1. N/A

## 6.0 Emergency Generators [emission point ID(s): S05, S06]

### 6.1 Limitations and Standards

- 6.1.1. Emissions generated from the operation of emergency generators, EN05 and EN06 shall not exceed the rates tabulated below:

Emission Point ids S05 and S06	Emission Limits for Each of the Caterpillar Engines		Combined Totals
	lb/hr	tons/yr	
NOx	6.4	1.6	3.2
CO	6.79	1.7	3.4
NM VOC	0.05	0.01	0.03
PM-10	0.03	0.01	0.02
SO2	<0.01	<0.01	<0.01

[45CSR13, R13-2503, A.1.]

- 6.1.2. Emergency generators, EN05 and EN06, shall not be utilized for more than 500 hours per year per generator.

[45CSR13, R13-2503, A.2.]

- 6.1.3. The emergency generator engines must comply with the applicable emission limitations and operating limitations of 40 CFR 63 Subpart ZZZZ no later than October 19, 2013.

[40 CFR §63.6595(a)]

### 6.2 Monitoring Requirements

- 6.2.1. N/A

### 6.3 Testing Requirements

- 6.3.1. N/A

### 6.4 Recordkeeping Requirements

- 6.4.1. Compliance with Sections 6.1.1 and 6.1.2 above shall be demonstrated by maintaining an operating log of the hours each generator was run. These documents shall be kept on site for no less than 5 years and be made readily available upon request of the Director or his/her duly authorized representatives.

[45CSR13, R13-2503, B.1.]

### 6.5 Reporting Requirements

- 6.5.1. N/A

## **6.6. Compliance Plan**

6.6.1. N/A

**7.0 Reciprocating Internal Combustion Engines [emission point ID(s): EN01, EN02, and EN03]**

**GACT Work Practice Requirements under 40 CFR 63, Subpart ZZZZ**

**7.1. Limitations and Standards**

- 7.1.1. The permittee must comply with the applicable operating limitations in this section no later than October 19, 2013.  
**[40 CFR §63.6595(a)]**
- 7.1.2. As stated in 40 CFR §63.6603 the permittee must comply with the following requirements from Table 2d for existing stationary RICE located at area sources of HAP emissions:

For each . . .	The permittee must meet the following requirements, except during periods of startup . . .
Non-emergency, non-black start 2SLB stationary RICE	Change oil and filter every 4,320 hours of operation or annually, whichever comes first; <sup>1</sup>
	Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first; and
	Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.

<sup>1</sup>Sources have the option to utilize an oil analysis program as described in 40 CFR §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

**[40 CFR §63.6603(a), and Table 2d]**

- 7.1.3. The permittee shall comply with the following requirements:
  - a. The permittee must be in compliance with the operating limitations in this subpart that apply to the permittee at all times.
  - b. At all times the permittee 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. The general duty to minimize emissions does not require the permittee to make any further efforts to reduce emissions if required levels have been achieved. 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.

**[40 CFR § 63.6605]**

- 7.1.4. The permittee shall demonstrate continuous compliance by doing the following:
  - a. The permittee must demonstrate continuous compliance with each emission limitation and operating limitation in Table 2d to 40 CFR 63, Subpart ZZZZ that apply to the permittee according to methods specified in Table 6 to 40 CFR 63, Subpart ZZZZ.

Table 6 states that for work or management practices the permittee shall operate and maintain the stationary RICE according to the manufacturer's emission related operation and maintenance instructions; or develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

- b. The permittee must report each instance in which you did not meet each emission limitation or operating limitation in Table 2d to 40 CFR 63, Subpart ZZZZ that apply. These instances are deviations from the emission and operating limitations. These deviations must be reported according to the requirements in 40 CFR §63.6650.
- c. The permittee must also report each instance in which the applicable requirements in Table 8 to 40 CFR 63, Subpart ZZZZ were not met.

**[40 CFR §§ 63.6640(a), (b), and (e)]**

- 7.1.5. The permittee shall comply with all General Provisions which apply according to Table 8 to 40 CFR, Part 63, Subpart ZZZZ.

**[40 CFR §63.6665]**

## **7.2. Monitoring Requirements**

- 7.2.1. This facility is subject to the following requirements:

- a. The permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

**[40 CFR §63.6625(e)(5)]**

- b. If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

**[40 CFR §63.6625(h)]**

- c. If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are

received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

**[40 CFR §63.6625(j)]**

### **7.3. Testing Requirements**

7.3.1. Reserved

### **7.4. Recordkeeping Requirements**

7.4.1. If the permittee must comply with the emission and operating limitations, the permittee must keep the following records:

- a. A copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in 40 CFR §63.10(b)(2)(xiv).
- b. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
- c. Records of performance tests and performance evaluations as required in 40 CFR §63.10(b)(2)(viii).
- d. Records of all required maintenance performed on the air pollution control and monitoring equipment.
- e. Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

**[40 CFR §63.6655(a)]**

7.4.2. The permittee must keep records of the maintenance conducted on each stationary RICE in order to demonstrate that the permittee operated and maintained each stationary RICE and after-treatment control device (if any) according to the permittee's own maintenance plan.

**[40 CFR §63.6655(e)]**

7.4.3. Records of the monitoring required by Table 6 of subpart ~~ZZZZ~~, item #9 shall be kept. These records also correlate with the monitoring conditions of 7.2.1.a. and c.

**[40 CFR §63.6655(d)]**

### **7.5. Reporting Requirements**

7.5.1. Each affected source that has obtained a Title V operating permit pursuant to 40 CFR Part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR §70.6 (a)(3)(iii)(A) or 40 CFR §71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR §70.6(a)(3)(iii)(A) or 40 CFR §71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of

the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

**[40 CFR §63.6650(f)]**

7.5.2. For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the compliance report must contain the information in paragraphs (c)(1) through (4) of 40 CFR §63.6650 and the information in paragraphs (1) and (2) of this section.

(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

**[40 CFR §63.6650(d)]**

## **7.6. Compliance Plan**

7.6.1. N/A