

West Virginia Department of Environmental Protection

Harold D. Ward

Cabinet Secretary

# Permit to Operate



Pursuant to

**Title V**

of the Clean Air Act

*Issued to:*

Eastern Gas Transmission and Storage, Inc.

Law Compressor Station

R30-03300014-2021

*Laura M. Crowder*

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*Laura M. Crowder*

*Director, Division of Air Quality*

*Issued: December 2, 2021 • Effective: December 16, 2021*  
*Expiration: December 2, 2026 • Renewal Application Due: June 2, 2026*

Permit Number: **R30-03300014-2021**  
Permittee: **Eastern Gas Transmission and Storage, Inc.**  
Facility Name: **Law Compressor Station**  
Permittee Mailing Address: **925 White Oaks Blvd.**  
**Bridgeport, WV 26330**

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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:	Good Hope, Harrison County, West Virginia
Facility Mailing Address:	P.O. Box 190, Route 90, McWhorter, WV 26401
Telephone Number:	(681)842-3000
Type of Business Entity:	Corporation
Facility Description:	Natural Gas Gathering Facility
SIC Codes:	4922
UTM Coordinates:	545.88 km Easting • 4335.35 km Northing • Zone 17

Permit Writer: Beena Modi

*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; Cooper GMXE-8, 2SLB	1973	660 HP	N/A
EN02*	EN02	Reciprocating Engine/Integral Compressor; Cooper GMXE-8, 2SLB	1973	660 HP	N/A
EG01*	EG01	Cummins GM8.1L, 4SRB	2012	192.5 HP	NSCR
EG02*	EG02	Cummins GM8.1L, 4SRB	2012	192.5 HP	NSCR
DEHY02*	DEHY02	Dehydration unit still; Cameron	2013	9 mmscf/day	F1
RBR02*	RBR02	Dehydration unit Reboiler; Cameron	2013	0.77 MMBTU/hr	N/A
F1*	F1	Dehydration unit flare; QTI, Q100	2013	4.0 MMBTU/hr	N/A
TK02	TK02	Vertical, above ground tank containing lube oil	1973	4,200 gallon	N/A
TK04	TK04	Vertical, above ground tank containing used oil	1972	1,000 gallon	N/A
TK05	TK05	Vertical, above ground tank containing produced fluids	1973	4,200 gallon	N/A
TK06	TK06	Vertical, above ground tank containing wastewater	2003	500 gallon	N/A
TK07	TK07	Horizontal, above ground tank containing triethylene glycol	1973	1,000 gallon	N/A
TK08	TK08	Horizontal, above ground tank containing ethylene glycol	1986	2,000 gallon	N/A

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

### 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
G60-C041	10/13/2011
R13-2963A	1/4/2016

## 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>CEM</b>	Continuous Emission Monitor	<b>PM</b>	Particulate Matter
<b>CES</b>	Certified Emission Statement	<b>PM<sub>10</sub></b>	Particulate Matter less than 10µm in diameter
<b>C.F.R. or CFR</b>	Code of Federal Regulations		
<b>CO</b>	Carbon Monoxide	<b>pph</b>	Pounds per Hour
<b>C.S.R. or CSR</b>	Codes of State Rules	<b>ppm</b>	Parts per Million
<b>DAQ</b>	Division of Air Quality	<b>PSD</b>	Prevention of Significant Deterioration
<b>DEP</b>	Department of Environmental Protection	<b>psi</b>	Pounds per Square Inch
		<b>SIC</b>	Standard Industrial Classification
<b>FOIA</b>	Freedom of Information Act		
<b>HAP</b>	Hazardous Air Pollutant	<b>SIP</b>	State Implementation Plan
<b>HON</b>	Hazardous Organic NESHAP	<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>HP</b>	Horsepower	<b>TAP</b>	Toxic Air Pollutant
<b>lbs/hr or lb/hr</b>	Pounds per Hour	<b>TPY</b>	Tons per Year
<b>LDAR</b>	Leak Detection and Repair	<b>TRS</b>	Total Reduced Sulfur
<b>m</b>	Thousand	<b>TSP</b>	Total Suspended Particulate
<b>MACT</b>	Maximum Achievable Control Technology	<b>USEPA</b>	United States Environmental Protection Agency
<b>mm</b>	Million		
<b>mmBtu/hr</b>	Million British Thermal Units per Hour	<b>UTM</b>	Universal Transverse Mercator
<b>mmft<sup>3</sup>/hr or mmcf/hr</b>	Million Cubic Feet Burned per Hour	<b>VEE</b>	Visual Emissions Evaluation
<b>NA or N/A</b>	Not Applicable		
<b>NAAQS</b>	National Ambient Air Quality Standards	<b>VOC</b>	Volatile Organic Compounds
<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. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

**[45CSR13, Permit No. R13-2963 (Condition 4.1.3)]**

- 3.1.10. 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. None.

## **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, R13-2963, 4.4.1 and General Permit Registration G60-C041 and G60-C, 4.2.1]

- 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.]**

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

**[45CSR13, Permit No. R13-2963 (Condition 4.4.2.)]**

- 3.4.5. **Record of Malfunctions of Air Pollution Control Equipment.** For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

- a. The equipment involved.
- b. Steps taken to minimize emissions during the event.
- c. The duration of the event.
- d. The estimated increase in emissions during the event.

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

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

**[45CSR13, Permit No. R13-2963 (Condition 4.4.3.)]**

### **3.5. Reporting Requirements**

- 3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

**[45CSR§§30-4.4. and 5.1.c.3.D.]**

- 3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31.

**[45CSR§30-5.1.c.3.E.]**

- 3.5.3. Except for the electronic submittal of the annual compliance certification and semi-annual monitoring reports to the DAQ and USEPA as required in 3.5.5 and 3.5.6 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by e-mail as

set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

**DAQ:**

Director  
WVDEP  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

**US EPA:**

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

**DAQ Compliance and Enforcement<sup>1</sup>:**

DEPAirQualityReports@wv.gov

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

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

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

**DAQ:**

DEPAirQualityReports@wv.gov

**US EPA:**

R3\_APD\_Permits@epa.gov

**[45CSR§30-5.3.e.]**

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

**DAQ:**

DEPAirQualityReports@wv.gov

**[45CSR§30-5.1.c.3.A.]**

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

3.5.8. **Deviations.**

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

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

[45CSR§30-5.1.c.3.C.]

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

[45CSR§30-5.1.c.3.B.]

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

[45CSR§30-4.3.h.1.B.]

### 3.6. Compliance Plan

3.6.1. None.

### 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. 45CSR§10-3 – To Prevent and Control Air Pollution from the Emissions of Sulfur Oxides: The flare (F1) is exempt from this section of the rule according to 45CSR§10-2.8; the flare does not meet the definition of a fuel-burning unit in 45CSR§10-2.8.
  - b. 40 C.F.R. 60 Subpart JJJJ – The compressor engines (EN01 and EN02) are not subject to this subpart since the engines were manufactured in 1973, before the applicability date.
  - c. 40 C.F.R. 60 Subpart OOOO – This subpart does not apply to the facility since the facility is a gathering facility that does not have tanks, gas wells, centrifugal compressors, reciprocating compressors, and/or pneumatic controllers constructed, modified, or reconstructed after August 23, 2011.
  - d. 40 CFR 60, Subpart OOOOa – This facility has no equipment with applicable requirements under Subpart OOOOa. This subpart applies to equipment installed after September 18, 2015. The facility has no affected emissions units that have been installed after the applicable Subpart OOOOa effective date.
  - e. 40 C.F.R. 63 Subpart HHH – This subpart does not apply to the facility since the facility is not a transmission or storage station and is not a major source of HAPs.
  - f. 40 C.F.R. 63 Subpart DDDDD – The reboiler (RBR02) is not subject to this subpart since the facility is not a major source of HAPs.
  - g. 40 C.F.R. 63 Subpart JJJJJ – The reboiler (RBR02) is not subject to this subpart since it is considered a “process heater,” which is excluded from the definition of “boiler.”
  - h. 40 CFR Part 64 - Compliance Assurance Monitoring. There have been no changes in this permit since the previous renewal was issued, so CAM remains not applicable to any emission unit listed in the renewal application.

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

- 3.8.1. 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 Source-Specific Requirements [RBR02]

### 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, Permit No. R13-2963 (Condition 5.1.2.)]
- 4.1.2. The reboiler 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 shall not exceed the emission limits given in the following table:

Emission Point ID	Emission Unit ID	Emission Unit Description	Regulated Pollutant	Maximum Potential Controlled Emissions	
				lb/hr	tpy
RBR02	RBR02	Dehydrator Unit Reboiler	PM <sub>2.5</sub>	0.01	0.01
			NO <sub>x</sub>	0.03	0.13
			CO	0.02	0.09
			SO <sub>2</sub>	0.01	0.01
			VOC	0.03	0.15
			Total HAP	0.01	0.01

[45CSR13, Permit No. R13-2963 (Condition 5.1.1.); State Enforceable Only]

### 4.2. Monitoring Requirements

- 4.2.1. At such reasonable times as the Secretary may designate, the registrant shall conduct Method 9 emission observations for the purpose of demonstrating compliance with condition 4.1.1. Method 9 shall be conducted in accordance with 40 CFR 60, Appendix A. [45CSR13, Permit No. R13-2963 (Condition 5.2.1.)]

### 4.3. Testing Requirements

- 4.3.1. None.

### 4.4. Recordkeeping Requirements

- 4.4.1. To demonstrate compliance with the emission limits established in 4.1.2, the permittee shall maintain records of actual operating hours on a monthly and annual basis. [45CSR13, Permit No. R13-2963 (Condition 5.4.1.)]

### 4.5. Reporting Requirements

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

opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.

**[45CSR13, Permit No. R13-2963 (Condition 5.5.1.)]**

#### **4.6. Compliance Plan**

4.6.1. None.

## 5.0 Source-Specific Requirements [F1, DEHY02]

### 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:

Emissions (lb/hr) = F x 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:

$(5.43) \times (9 \text{ cf/min}) \times (60 \text{ min/hr}) \times (0.0399 \text{ lb/cf}) \times (\text{ton}/2000 \text{ lb})$

= 0.0585 lb/hr

**[45CSR§6-4.1][F1]**

- 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.

The provisions of this condition 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, or six (6) minutes in any sixty (60)-minute period for stoking operations.

**[45CSR§§6-4.3 and 4.4; 45CSR13, Permit No. R13-2963 (Condition 6.1.4.)][F1]**

- 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][F1]**

- 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, Permit No. R13-2963 (Condition 6.1.4.)][F1]**

- 5.1.5. The permittee has defined the facility as a minor source of HAPs for existing source MACT applicability purposes. As a result, the facility shall not emit HAPs to the atmosphere equaling or exceeding the major source thresholds of 10 tpy of any individual HAP or 25 tpy of aggregate HAPs. Therefore, the subject facility shall conduct monitoring, testing, and reporting as specified below in order to provide adequate justification for maintaining minor source status. These requirements shall in no way restrict the permittee from conducting more frequent testing to quantify emissions increases.

**[45CSR34; 40CFR§63.10(b)(3); (Subpart HH); 45CSR13, Permit No. R13-2963 (Condition 4.1.2.)]**

- 5.1.6. Reserved

- 5.1.7. Reserved



5.1.8. Except as provided in 5.1.8.b, 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 5.1.8.a.

a. Each owner or operator of an area source not located in a UA plus offset and UC boundary (as defined in 40 CFR §63.761) shall comply with the following:

1. 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.

2. Operate the TEG dehydration unit such that the actual glycol circulation rate does not exceed the optimum glycol circulation rate determined in accordance with 40 CFR §63.764(d)(2)(i). 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 40 CFR §63.764(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 40 CFR §63.775(c)(7).

3. Maintain a record of the determination specified in 40 CFR §63.764(d)(2)(ii) in accordance with the requirements in 40 CFR §63.774(f) and submit the Initial Notification in accordance with the requirements in 40 CFR §63.775(c)(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 40 CFR §§63.764 (d)(2)(i) or (ii) and submit the information specified under 40 CFR §63.775(c)(7)(ii) through (v).

b. The owner or operator of an area source is exempt from the requirements of 5.1.8.a if the actual average emissions of benzene from the glycol dehydration unit process vent to the atmosphere are less than 0.90 megagram per year, as determined by 5.1.15, except that records of the determination of these criteria must be maintained as required by condition 5.4.7.

**[45CSR34; 40 C.F.R. §§63.764(d)(2) and (e)(1)(ii)]**

5.1.9. The following equipment 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 shall not exceed the emission limits given in the following table:

Emission Point ID	Emission Unit ID	Emission Unit Description	Regulated Pollutant	Maximum Potential Controlled Emissions	
				lb/hr	tpy
DEHY02	DEHY02	Dehydrator Unit Still	VOC	2.43	10.63
			Benzene	0.04	0.18
			Toluene	0.10	0.43
			Ethylbenzene	0.02	0.10
			Xylene	0.15	0.65
			Total HAP	0.34	1.48
F1	F1	Dehydration Unit Flare (combustion emissions)	VOC	0.01	0.01
			NO <sub>x</sub>	0.12	0.50
			CO	0.02	0.09
			PM <sub>2.5</sub>	0.03	0.13

[45CSR13, Permit No. R13-2963 (Condition 6.1.1.)]

5.1.10. **Maximum Throughput Limitations.** The maximum wet natural gas throughput to the glycol dehydration unit/still column shall not exceed 9 mmscf/day (3,285 mmscf/yr). Compliance with the maximum throughput limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months. [45CSR13, Permit No. R13-2963 (Condition 6.1.2.)]

5.1.11. The dehydration unit flare [F1] shall be designed and operated in accordance with the following:

- a. The flare [F1] shall be non-assisted.
- b. The flare [F1] shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- c. The flare [F1] shall be operated with a flame present at all times except during SSM (Startup, Shutdown, Malfunctions) events.
- d. The flare [F1] shall be used only where the net heating value of the gas being combusted is 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

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

Where:

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

$$K = Constant = 1.740 \times 10^{-7} \left( \frac{1}{ppmv} \right) \left( \frac{g - mole}{scm} \right) \left( \frac{MJ}{kcal} \right)$$

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

$C_i$  = Concentration of sample component  $i$  in ppmv on a wet basis, which may be measured for organics by Test Method 18, but is not required to be measured using Method 18 (unless designated by the Director).

$H_i$  = 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.

$n$  = Number of sample components.

- e. Nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec) as determined by the methods specified in 5.3.2 of this permit except as provided in conditions 5.1.11.f and g.
- f. Nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in 5.3.2 of this permit, 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).
- g. Nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in 5.3.2. of this permit, less than the velocity  $V_{max}$ , as determined by the calculation specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity,  $V_{max}$ , for flares complying with this paragraph shall be determined by the following equation:

$$\log_{10} V_{max} = (H_T + 28.8)/31.7$$

Where:

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

28.8 = Constant.

31.7 = Constant.

$H_T$  = The net heating value as determined in condition 5.1.11.d

**[40 C.F.R. §60.18; 45CSR13, Permit No. R13-2963 (Condition 6.1.3.)]**

- 5.1.12. The dehydration plant is subject to 40 CFR 63, Subpart HH, “National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities”, the amendments of which became effective October 15, 2012. The provisions set forth in 40 C.F.R. 63, Subpart HH shall apply at all times.

**[45CSR34; 40 C.F.R. 63, Subpart HH; 40 CFR §§ 63.760 and 63.762(a) ; 45CSR13, Permit No. R13-2963 (Condition 6.1.6.)]**

- 5.1.13. The actual annual benzene emission limit established in condition 5.1.9 meets the exemption criteria of <0.9 Mg/yr (<1.0 Tons/yr) that is listed in 40 C.F.R. §63.764(e)(1)(ii) and as determined by condition 5.1.15 of this permit. The actual annual benzene emissions shall be determined within 14 months of start-up and verified annually thereafter.

**[45CSR13, Permit No. R13-2963 (Condition 6.1.7.)]**

5.1.14. Table 2 of 40 C.F.R. 63 subpart HH specifies the provisions of 40 C.F.R. 63 subpart A (General Provisions) that apply and those that do not apply to owners and operators of affected sources subject to this subpart. The only affected source is the Glycol Dehydration Unit [DEHY02].

**[45CSR34; 40 C.F.R. 63, Subpart HH; §63.764 (a)]**

5.1.15. Determination of benzene emissions. The procedures of this condition shall be used by an owner or operator to determine glycol dehydration unit natural gas benzene emissions to show compliance with the benzene emission limits established in condition 5.1.9 and the exemption requirement in condition 5.1.13.

The determination of actual average benzene emissions from a glycol dehydration unit shall be made using either of the following procedures. Emissions shall be determined either uncontrolled, or with federally enforceable controls in place.

- a. The owner or operator shall determine actual average benzene emissions using the model GRI-GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled “Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions” (GRI-95/0368.1); or
- b. The owner or operator shall determine an average mass rate of benzene emissions in kilograms per hour through direct measurement using the methods in 40 C.F.R. §63.772(a)(1)(i) or (ii), or an alternative method according to 40 C.F.R. §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.

**[45CSR34; 40 C.F.R. 63, Subpart HH; 40 CFR §63.772 (b)(2); 45CSR13, Permit No. R13-2963 (Condition 6.1.9.)]**

## 5.2. Monitoring Requirements

5.2.1. In order to demonstrate compliance with the area source status, claimed within 5.1.5, and the benzene emission exemption, claimed within 5.1.13, 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 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.c.; 45CSR13, Permit No. R13-2963 (Condition 6.2.1.)] [F1]**

- 5.2.2. To demonstrate compliance with the visible emission and opacity limitations established in 5.1.2 and 5.1.11, the permittee shall conduct monthly visual emission checks. 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 C.F.R. 60, Appendix A. Visible emission checks shall not be required during start-ups, shut-downs and malfunctions.

**[45CSR13, Permit No. R13-2963 (Condition 6.2.3.)] [F1]**

- 5.2.3. Reserved

- 5.2.4. Reserved

- 5.2.5. The permittee shall monitor the throughput of the wet natural gas feed to the dehydration system on a daily and monthly basis to demonstrate compliance with condition 5.1.10.

**[45CSR13, Permit No. R13-2963 (Condition 6.2.2)]**

- 5.2.6. To demonstrate compliance with the requirements of 5.1.11.c., the permittee shall monitor the presence or absence of a flare pilot flame using a thermocouple or any other equivalent device to detect the presence of a flame, except during SSM events. The system must also be equipped with a continuous recorder.

**[45CSR§30-5.1.c; 45CSR13, Permit No. R13-2963 (Condition 6.2.4)]**

- 5.2.7. The permittee shall monitor the flare [F1] to ensure that it is operated and maintained in conformance with its design.

**[45CSR13, Permit No. R13-2963 (Condition 6.2.5)]**

### 5.3. Testing Requirements

- 5.3.1. In order to demonstrate compliance with condition 5.1.9, upon request of the Director, the permittee shall demonstrate compliance with the HAP emissions thresholds 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.

**[45CSR13, Permit No. R13-2963 (Condition 6.3.1)]**

5.3.2. Flare exit velocity. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), by the unobstructed (free) cross-sectional area of the flare tip, which may be determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60, as appropriate, but is not required to be determined using these Methods (unless designated by the Director).

**[45CSR13, Permit No. R13-2963 (Condition 6.3.2)]**

5.3.3. Visible emissions.

a. In order to demonstrate compliance with the flare visible emission and opacity requirements of conditions 5.1.2 and 5.1.11, the permittee shall conduct a visible emissions test for at least two hours. This test shall demonstrate no visible emissions are observed for more than a total of 5 minutes during any 2 consecutive hour period using 40CFR60 Appendix A Method 22. The applicant shall conduct this test within one (1) year of permit issuance or initial startup whichever is later. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR part 60, appendix A, Method 22 or from the lecture portion of 40 CFR part 60, appendix A, Method 9 certification course.

b. If visible emissions are observed, the permittee shall conduct an opacity test using the procedures and requirements of Method 9 as soon as practicable, but within seventy-two (72) hours of the visual emission check.

**[45CSR13, Permit No. R13-2963 (Condition 6.3.3)]**

5.3.4. The Director may require the applicant to conduct a flare compliance assessment to demonstrate compliance with condition 5.1.11. 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 applicant to conduct Test Method 4 in conjunction with Test Method 18.

**[45CSR13, Permit No. R13-2963 (Condition 6.3.4)]**

## **5.4. Recordkeeping Requirements**

5.4.1. **Minor Source of Hazardous Air Pollutants (HAP).** For the purpose of demonstrating compliance with the facility wide HAP emissions limit and area source status in condition 5.1.5, the permittee shall maintain records of annual HAP emissions using AP-42 emission factors, GRI-GLYCalc model outputs, manufacturer guaranteed values, sample and/or test data, or other methods approved by DAQ demonstrating that the facility-wide HAP emissions are less than those specified in condition 5.1.5.

**[45CSR13, Permit No. R13-2963 (Condition 4.4.4.)]**

5.4.2. To demonstrate compliance with the emission limits established in 5.1.9, the permittee shall maintain records of actual operating hours. The permittee shall also maintain records of the operating parameters in accordance with the requirements in 5.2.1.

**[45CSR13, Permit No. R13-2963 (Condition 6.4.1)]**

- 5.4.3. To demonstrate compliance with the maximum wet natural gas throughput limitation established in condition 5.1.10 of this permit, the permittee shall maintain a record of the wet natural gas throughput through the dehydration system on a daily basis. Compliance with the maximum throughput limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the monthly throughput at any given time during the previous twelve consecutive calendar months.  
**[45CSR13, Permit No. R13-2963 (Condition 6.4.2)]**
- 5.4.4. To demonstrate compliance with the visible emission and opacity requirements in conditions 5.1.2 and 5.1.11, the permittee shall maintain records of the visible emission and opacity observations conducted in accordance with the monitoring requirements in condition 5.2.2 and the testing requirements in 5.3.3.  
**[45CSR13, Permit No. R13-2963 (Condition 6.4.3)]**
- 5.4.5. To demonstrate compliance with the flare pilot flame requirements in condition 5.1.11, the permittee shall maintain records of the times and duration of all periods when the pilot flame was absent.  
**[45CSR13, Permit No. R13-2963 (Condition 6.4.4)]**
- 5.4.6. For the purpose of demonstrating compliance with conditions 5.1.11 and 5.3.4, the applicant shall maintain a record of the flare design evaluation. The flare design evaluation shall include, net heat value calculations, exit (tip) velocity calculations, and all supporting concentration calculations and other related information requested by the Director.  
**[45CSR13, Permit No. R13-2963 (Condition 6.4.5)]**
- 5.4.7. To demonstrate compliance with conditions 5.1.12, 5.1.13, and 5.1.15 an owner or operator of a glycol dehydration unit that meets the exemption criteria in 40 C.F.R. §63.764(e)(1)(i) or 40 C.F.R. §63.764(e)(1)(ii) shall maintain the records specified below, 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 40 C.F.R. §63.772(b)(1), or
  - b. The actual average benzene emissions (in terms of benzene emissions per year) as determined in accordance with 40 C.F.R. §63.772(b)(2).
- [45CSR34; 40 C.F.R. §63.774(d)(1); 45CSR13, Permit No. R13-2963 (Condition 6.4.7)]**

## **5.5. Reporting Requirements**

- 5.5.1. Any deviation(s) from the allowable visible emission requirements of conditions 5.1.2 or 5.1.11 for any emission source discovered during observations using 40CFR Part 60, Appendix A, Method 9 or 22 shall be reported in writing to the Director of the Division of Air Quality as soon as practicable, but in any case within ten (10) calendar days of the occurrence and shall include at least the following information: the results of the visible determination of opacity of emissions, the cause or suspected cause of the violation(s), and any corrective measures taken or planned.  
**[45CSR13, Permit No. R13-2963 (Condition 6.5.1)]**
- 5.5.2. The permittee shall report any malfunction of the monitoring device in Condition 5.2.6. and any instance in which the dehydration system was operated without the flare.  
**[45CSR§30-5.1.c] [F1]**

5.5.3. Any deviation(s) from the flare design and operation criteria in condition 5.1.11 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 discovery of such deviation.

**[45CSR13, Permit No. R13-2963 (Condition 6.5.2)]**

5.5.4. If the permittee is required by the Director to demonstrate compliance with condition 5.3.4, then the permittee shall submit a testing protocol at least thirty (30) days prior to testing and shall submit a notification of the testing date at least fifteen (15) days prior to testing. The permittee shall submit the testing results within sixty (60) days of testing and provide all supporting calculations and testing data.

**[45CSR13, Permit No. R13-2963 (Condition 6.5.3)]**

5.5.5. Notification of process change. Whenever a process change is made, or a change in any of the information submitted in the Notification of Compliance Status Report, the owner or operator shall submit a report within 180 days after the process change is made or as a part of the next Periodic Report as required under 40 C.F.R. §63.775(e), whichever is sooner. The report shall include:

- a. A brief description of the process change;
- b. A description of any modification to standard procedures or quality assurance procedures;
- c. Revisions to any of the information reported in the original Notification of Compliance Status Report; and
- d. Information required by the Notification of Compliance Status Report under 5.5.7 for changes involving the addition of processes or equipment.

**[45CSR34; 40 C.F.R. §63.775(f); 45CSR13, Permit No. R13-2963 (Condition 6.5.6)]**

5.5.6. **Electronic reporting.**

- a. Within 60 days after the date of completing each performance test (defined in § 63.2) as required by 40 C.F.R. 63, Subpart HH the permittee must submit the results of the performance tests required by 40 C.F.R. 63, Subpart HH to EPA's WebFIRE database by using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) ([www.epa.gov/cdx](http://www.epa.gov/cdx)). Performance test data must be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT) (see <http://www.epa.gov/ttn/chief/ert/index.html>). Only data collected using test methods on the ERT Web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) must submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media must be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted must be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, the permittee must also submit these reports, including the confidential business information, to the delegated authority in the format specified by the delegated authority.



- b. All reports required by 40 C.F.R. 63, Subpart HH not subject to the requirements in paragraph (a) of this condition must be sent to the Administrator at the appropriate address listed in § 63.13. The Administrator or the delegated authority may request a report in any form suitable for the specific case (e.g., by commonly used electronic media such as Excel spreadsheet, on CD or hard copy). The Administrator retains the right to require submittal of reports subject to paragraph (a) of this condition in paper format.

**[45CSR34; 40 C.F.R. §63.775(g); 45CSR13, Permit No. R13-2963 (Condition 6.5.7)]**

## **5.6. Compliance Plan**

- 5.6.1. Reserved.

## 6.0 Source-Specific Requirements [EN01, EN02]

### 6.1. Limitations and Standards

- 6.1.1. As stated in 40 C.F.R. §63.6603, the permittee must comply with the following requirements from Table 2d 40 C.F.R. 63, Subpart ZZZZ 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 ...	During periods of startup you must ...
Non-emergency, non-black start 2SLB stationary RICE (EN01, EN02)	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 replace as necessary; and Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.

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

**[45CSR34; 40 C.F.R. § 63.6603(a), and Table 2d]**

- 6.1.2. The permittee must comply with the applicable emission limitations and operating limitations in this section no later than October 19, 2013.

**[45CSR34; 40 C.F.R. § 63.6595(a)]**

- 6.1.3. The permittee shall comply with the following requirements:

- a. The permittee must be in compliance with the emission limitations, and operating limitations, and other requirements 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.

**[45CSR34; 40 C.F.R. § 63.6605]**

- 6.1.4. 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 C.F.R. 63, Subpart ZZZZ that apply to the permittee according to methods specified in Table 6 to 40 C.F.R. 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 their 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 they did not meet each emission limitation or operating limitation in Table 2d to 40 C.F.R. 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 C.F.R. §63.6650.

c. The permittee must also report each instance in which the applicable requirements in Table 8 to 40 C.F.R. 63, Subpart ZZZZ were not met.

**[45CSR34; 40 C.F.R. §§ 63.6640(a), (b), and (e)]**

6.1.5. Reserved.

6.1.6. The permittee shall comply with all General Provisions which apply according to Table 8 to 40 C.F.R., Part 63, Subpart ZZZZ, except per §63.66459(a)(5) the following do not apply: §§63.7(b) and (c), 63.8(e), (f)(4), and (f)(6), and 63.9(b)-(e), (g), and (h).

**[45CSR34; 40 C.F.R. §§63.6645(a)(5) and 63.6665]**

## **6.2. Monitoring Requirements**

6.2.1. 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 their 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.

**[45CSR34; 40 C.F.R. §§63.6625(e)(3) and (5)]**

b. Reserved.

c. If the permittee operates a new, reconstructed, or existing stationary engine, the permittee 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 Table 2d to 40 C.F.R. Part 63, Subpart ZZZZ apply.

**[45CSR34; 40 C.F.R. §63.6625(h)]**

d. If the permittee owns or operates a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to 40 C.F.R. Part 63, Subpart ZZZZ or in items 5, 6, 7, 9, or 11 of Table 2d to 40 C.F.R., Part 63, Subpart ZZZZ, the permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to 40 C.F.R. Part 63, Subpart ZZZZ. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to 40 C.F.R. Part 63, Subpart ZZZZ. 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 business 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 business 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.

**[45CSR34; 40 C.F.R. §63.6625(j)]**

### **6.3. Testing Requirements**

6.3.1. Reserved.

### **6.4. Recordkeeping Requirements**

6.4.1. 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.

**[45CSR34; 40 CFR §63.6655(a)]**

6.4.2. 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.

**[45CSR34; 40 CFR §63.6655(e)]**

6.4.3. Records of the monitoring required in Condition 6.1.4.a shall be kept.

**[45CSR34; 40 CFR §63.6655(d)]**

6.4.4. Reserved.

### **6.5. Reporting Requirements**

6.5.1. Reserved.

### **6.6. Compliance Plan**

6.6.1. Reserved.

## 7.0 Source-Specific Requirements [EG01 & EG02]

### 7.1. Limitations and Standards

7.1.1. Emergency Generators EG01 and EG02 shall be operated and maintained in accordance with the manufacturer’s recommendations and specifications and in a manner consistent with good operating practices.

**[45CSR13, General Permit Registration G60-C041 and G60-C, Condition 5.1.1]**

7.1.2. **Regulated Pollutant Limitation.** The permittee shall not cause, suffer, allow or permit emissions of PM, PM<sub>10</sub>, VOC, SO<sub>2</sub>, NO<sub>x</sub>, CO, and formaldehyde, from emergency generators EG01 and EG02 to exceed the potential to emit (pounds per hour and tons per year) listed in the table below:

Unit ID	NO <sub>x</sub>		CO		VOC		SO <sub>2</sub>		PM <sub>10</sub>		Formaldehyde	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
EG01	0.03	0.01	0.39	0.10	0.19	0.05	<0.01	<0.01	0.02	<0.01	0.03	0.01
EG02	0.03	0.01	0.39	0.10	0.19	0.05	<0.01	<0.01	0.02	<0.01	0.03	0.01
Total	0.06	0.02	0.78	0.20	0.38	0.10	<0.01	<0.01	0.04	<0.01	0.06	0.02

**[45CSR13, General Permit Registration G60-C041 and G60-C, Condition 5.1.2]**

7.1.3. **Maximum Fuel Consumption Limitation.** The maximum fuel consumption for emergency generators EG01 and EG02 shall not exceed 1,667 ft<sup>3</sup>/hr and 0.834 MMft<sup>3</sup>/yr without effecting a modification or administrative update. Compliance with the Maximum Yearly Fuel Consumption Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the fuel consumption at any given time during the previous twelve consecutive calendar months.

**[45CSR13, General Permit Registration G60-C041 and G60-C, Condition 5.1.3]**

7.1.4. Requirements for Use of Catalytic Reduction Devices:

- a. Rich-burn natural gas compressor engines equipped with non-selective catalytic reduction (NSCR) air pollution control devices shall be fitted with a closed-loop, automatic air/fuel ratio controller to ensure emissions of regulated pollutants do not exceed the potential to emit for any engine/NSCR combination under varying load. The closed-loop, automatic air/fuel ratio controller shall control a fuel metering valve to deliver additional fuel when required to ensure a fuel-rich mixture and a resultant exhaust oxygen content of less than or equal to 0.5%. The automatic air/fuel ratio controller shall also incorporate dual-point exhaust gas temperature and oxygen sensors which provide temperature and exhaust oxygen content differential feedback. Such controls shall ensure proper and efficient operation of the engine and NSCR air pollution control device;
- b. The automatic air/fuel ratio controller or closed-loop automatic feedback controller shall provide a warning or indication to the operator and/or be interlocked with the engine ignition system to cease engine operation in case of a masking, poisoning or overrich air/fuel ratio situation which results in performance degradation or failure of the catalyst element; and
- c. No person shall knowingly:

1. Remove or render inoperative any air pollution or auxiliary air pollution control device installed subject to the requirements of General Permit G35-A;
2. Install any part or component when the principal effect of the part or component is to bypass, defeat or render inoperative any air pollution control device or auxiliary air pollution control device installed subject to the requirements of General Permit G35-A; or
3. Cause or allow engine exhaust gases to bypass any catalytic reduction device.

**[45CSR13, General Permit Registration G60-C041 and G60-C, Conditions 5.1.4.a, 5.1.4.c, and 5.1.4.d]**

7.1.5. A new or reconstructed stationary RICE located at an area source must meet the requirements of 40 C.F.R. part 63 by meeting the requirements of 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40 C.F.R. part 63.

**[45CSR34, 40 CFR §§63.6590(c) and (c)(1)]**

7.1.6. Owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) must comply with the emission standards in Table 1 to 40 C.F.R. 60 Subpart JJJJ for their stationary SI ICE. For owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 100 HP (except gasoline and rich burn engines that use LPG) manufactured prior to January 1, 2011 that were certified to the certification emission standards in 40 CFR part 1048 applicable to engines that are not severe duty engines, if such stationary SI ICE was certified to a carbon monoxide (CO) standard above the standard in Table 1 to this subpart, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.

**Table 1 to 40 C.F.R. 60 Subpart JJJJ**

Engine Type and Fuel	Maximum Engine Power	Emission Standards					
		g/HP-hr			ppmvd at 15% O <sub>2</sub>		
		NO <sub>x</sub>	CO	VOC <sup>d</sup>	NO <sub>x</sub>	CO	VOC <sup>d</sup>
Emergency	HP ≥ 130	2.0	4.0	1.0	160	540	86

<sup>d</sup> For purposes of this subpart, when calculating emissions of volatile organic compounds, emissions of formaldehyde should not be included.

**[45CSR13, General Permit Registration G60-C041 and G60-C, Condition 8.2.5; 40CFR§60.4233(e), and Table 1 of 40 C.F.R. 60 Subpart JJJJ; 45CSR16]**

7.1.7. Owners and operators of stationary SI ICE that are required to meet standards that reference 40 CFR 1048.101 must, if testing their engines in use, meet the standards in that section applicable to field testing, except as indicated in 40 C.F.R. §60.4233(e).

**[45CSR13, General Permit Registration G60-C041 and G60-C, Condition 8.2.8; 40CFR§60.4233(h); 45CSR16]**

7.1.8. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in 40 C.F.R. §60.4233 over the entire life of the engine.

**[45CSR13, General Permit Registration G60-C041 and G60-C, Condition 8.2.9; 40CFR§60.4234; 45CSR16]**

7.1.9. For emergency stationary SI ICE with a maximum engine power of greater than 19 KW (25 HP), owners and operators may not install engines that do not meet the applicable requirements in §60.4233 after January 1, 2011.

**[45CSR13, General Permit Registration G60-C041 and G60-C, Condition 8.3.4; 40CFR§60.4236(c) ; 45CSR16]**

- 7.1.10. Starting on January 1, 2011, if the emergency stationary SI internal combustion engine that is greater than or equal to 130 HP and less than 500 HP that was built on or after January 1, 2011, does not meet the standards applicable to non-emergency engines, the owner or operator must install a non-resettable hour meter. **[45CSR13, General Permit Registration G60-C041 and G60-C, Condition 8.3.8; 40CFR§60.4237(b) ; 45CSR16]**
- 7.1.11. If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in 40 C.F.R §60.4233(d) or (e), you must demonstrate compliance according to methods specified in 40 C.F.R. §60.4243(b)(1):
- a. Purchasing an engine certified according to procedures specified in 40 C.F.R. 60 Subpart JJJJ, for the same model year and demonstrating compliance according to the method specified in 40 C.F.R. §60.4243(a)(1).
    - i. If you operate and maintain the certified stationary SI internal combustion engine and control device according to the manufacturer's emission-related written instructions, you must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required if you are an owner or operator. You must also meet the requirements as specified in 40 CFR part 1068, subparts A through D, as they apply to you. If you adjust engine settings according to and consistent with the manufacturer's instructions, your stationary SI internal combustion engine will not be considered out of compliance.

**[45CSR13, General Permit Registration G60-C041 and G60-C, Condition 8.4.2; 40CFR§§60.4243(b)(1), and (a)(1); 45CSR16]**

- 7.1.12. If you own or operate an emergency stationary ICE, you must operate the emergency stationary ICE according to the requirements 40 C.F.R. §§60.4243(d)(1) through (3). In order for the engine to be considered an emergency stationary ICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 C.F.R. §§60.4243(d)(1) through (3), is prohibited. If you do not operate the engine according to the requirements of 40 C.F.R. §§60.4243(d)(1) through (3) listed below, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.
- a. There is no time limit on the use of emergency stationary ICE in emergency situations.
  - b. You may operate your emergency stationary ICE for any combination of the purposes specified in 40 C.F.R. §§60.4243(d)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 C.F.R. §§60.4243(d)(3) counts as part of the 100 hours per calendar year allowed by this paragraph.
    - i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.
  - c. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in 40 C.F.R. §60.4243(d)(2). Except as provided in 40 C.F.R. §60.4243(d)(3)(i), the 50 hours per year for non-

emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

**[45CSR13, General Permit Registration G60-C041 and G60-C, Condition 8.4.4; 40CFR§60.4243(d); 45CSR16]**

- 7.1.13. Owners and operators of stationary SI natural gas fired engines may operate their engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but must keep records of such use. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the owners and operators are required to conduct a performance test to demonstrate compliance with the emission standards of §60.4233.

**[45CSR13, General Permit registration G60-C041 and G-60C, Condition 8.4.5; 40CFR§60.4243(e); 45CSR16]**

- 7.1.14. If you are an owner or operator of a stationary SI internal combustion engine that is less than or equal to 500 HP and you purchase a non-certified engine or you do not operate and maintain your certified stationary SI internal combustion engine and control device according to the manufacturer's written emission-related instructions, you are required to perform initial performance testing as indicated in 40 C.F.R. §60.4243, but you are not required to conduct subsequent performance testing unless the stationary engine is rebuilt or undergoes major repair or maintenance. A rebuilt stationary SI ICE means an engine that has been rebuilt as that term is defined in 40 CFR §94.11(a).

**[45CSR13, General Permit registration G60-C041 and G60-C, Condition 8.4.6; 40CFR§60.4243(f), 45CSR16]**

- 7.1.15. It is expected that air-to-fuel ratio controllers will be used with the operation of three-way catalysts/non-selective catalytic reduction. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

**[45CSR13, General Permit Registration G60-C041 and G60-C, Condition 8.4.7; 40CFR§60.4243(g), 45CSR16]**

## **7.2. Monitoring Requirements**

### **7.2.1. Catalytic Oxidizer Control Devices**

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

1. Maintaining proper operation of the automatic air/fuel ratio controller or automatic feedback controller.
2. Following operating and maintenance recommendations of the catalyst element manufacturer.

**[45CSR13, General Permit Registration G60-C041 and G60-C, Condition 5.2.1]**

## **7.3. Testing Requirements**

### **7.3.1 None**



#### **7.4. Recordkeeping Requirements**

- 7.4.1. To demonstrate compliance with conditions 7.1.1, 7.1.2, and 7.1.3, the permittee shall maintain records of the amount and type of fuel consumed in each engine and the hours of operation of each engine. Said records shall be maintained on site or in a readily accessible off-site location maintained by the permittee for a period of five (5) years. Said records shall be readily available to the Director of the Division of Air Quality or his/her duly authorized representative for expeditious inspection and review. Any records submitted to the agency pursuant to a requirement of this permit or upon request by the Director shall be certified by a responsible official.

**[45CSR13, General Permit registration G60-C041 and G-60C, Condition 5.4.1]**

- 7.4.2 Owners or operators of stationary SI ICE must meet the following notification, reporting and recordkeeping requirements.

- a. Owners and operators of all stationary SI ICE must keep records of the information in 40 C.F.R. §§60.4245(a)(1) through (4).

1. All notifications submitted to comply with this subpart and all documentation supporting any notification.
2. Maintenance conducted on the engine.
3. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90 and 1048.
4. If the stationary SI internal combustion engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 C.F.R. §60.4243(a)(2), documentation that the engine meets the emission standards.

**[40CFR§60.4245(a)]**

- b. For all stationary SI emergency ICE greater than or equal to 130 HP and less than 500 HP manufactured on or after July 1, 2011 that do not meet the standards applicable to non-emergency engines, the owner or operator of must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation.

**[40CFR§60.4245(b)]**

**[45CSR13, General Permit Registration G60-C041 and G60-C, Condition 8.6.1; 40CFR§60.4245, 45CSR16]**

#### **7.5. Reporting Requirements**

- 7.5.1. If the permittee owns or operates an emergency stationary SI ICE with a maximum engine power more than 100 HP that operates for the purposes specified in 40 C.F.R. §60.4243(d)(3)(i), the permittee must submit an annual report according to 40 C.F.R. §60.4245(e).

**[40CFR§60.4245(e), 45CSR16]**

#### **7.6. Compliance Plan**

- 7.6.1. Reserved.