

West Virginia Department of Environmental Protection  
Division of Air Quality

Jim Justice  
Governor

Austin Caperton  
Cabinet Secretary

# Permit to Operate



Pursuant to  
**Title V**  
of the Clean Air Act

Issued to:  
**Dominion Transmission, Inc.**  
Cornwell Station/Clendenin  
R30-03900051-2017

A handwritten signature in blue ink, appearing to read "William F. Durham", written over a horizontal line.

*William F. Durham*  
Director

Issued: June 12, 2017 • Effective: June 26, 2017  
Expiration: June 12, 2022 • Renewal Application Due: December 12, 2021

Permit Number: **R30-03900051-2017**  
Permittee: **Dominion Transmission, Inc.**  
Facility Name: **Cornwell 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: Clendenin, Kanawha County, West Virginia  
Facility Mailing Address: 2883 River Haven Road, Clendenin, WV 25045  
Telephone Number: (304) 548-6901  
Type of Business Entity: Corporation  
Facility Description: Natural Gas Compressor Station  
SIC Codes: 4922  
UTM Coordinates: 476.19 km Easting • 4,259.58 km Northing • Zone 17

Permit Writer: Bobbie Scroggie

*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
<b>Transmission Pipeline System</b>					
001-04	EN10	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF; 2SLB	1947	1350 HP	N/A
001-05	EN11	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF; 2SLB	1947	1350 HP	N/A
001-06	EN12	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF; 2SLB	1947	1350 HP	N/A
001-07	EN13	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF; 2SLB	1947	1350 HP	N/A
001-08	EN14	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF; 2SLB	1947	1350 HP	N/A
001-09	EN15	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF; 2SLB	1947	1350 HP	N/A
001-0A	EN16	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF; 2SLB	1947	1350 HP	N/A
001-0B	EN17	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF; 2SLB	1947	1350 HP	N/A
001-0C	EN18	Reciprocating Engine/Integral Compressor; Ingersoll Rand 410-KVT; 4SLB	1962	2500 HP	N/A
001-0D	EN19	Reciprocating Engine/Integral Compressor; Ingersoll Rand 410-KVT; 4SLB	1962	2500HP	N/A
002-04	AUX04	Reciprocating Engine/Generator; Caterpillar G3512; emergency	2002	810 HP	N/A
<b>Production Gathering Pipeline System</b>					
001-01 (Engine 07)	EN07	Reciprocating Engine/Integral Compressor; Caterpillar Model G3512; 4SLB; remote	1998	810 HP	N/A
001-02	EN08	Reciprocating Engine/Integral Compressor; Cooper GMX-8TF; 2SLB	1969	440 HP	N/A
001-10	EN09	Reciprocating Engine/Integral Compressor; Ajax DPC-2804LE; lean burn	2012	750 HP	CC01
005-01	DEHY01	Dehydration Unit Still; Natco Model SHV-3	1999	23 mmscf/day	F1
0002	F1	Dehydration unit flare; QT1, Q250	2012	10.0 mmBtu/hr	N/A
<b>Tanks</b>					
TK01	TK01	Horizontal Aboveground Lube Oil Tank	1995	15,000 Gallons	N/A

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
TK02	TK02	Horizontal Aboveground Ethylene Glycol Tank	2000	1,000 Gallons	N/A
TK03	TK03	Horizontal Aboveground Ethylene Glycol Tank	1990	10,000 Gallons	N/A
TK04	TK04	Horizontal Aboveground Waste/Used Oil Tank	1995	4,000 Gallons	N/A
TK05	TK05	Horizontal Aboveground Lube Oil Tank	1995	15,000 Gallons	N/A
TK06	TK06	Horizontal Aboveground Produced Fluids Tank	2004	1,000 Gallons	N/A
TK08	TK08	Horizontal Aboveground Waste Water Tank	1990	1,000 Gallons	N/A
TK10	TK10	Horizontal Aboveground Waste/Used Oil Tank	1990	53 Gallons	N/A
TK11	TK11	Horizontal Aboveground Produced Fluids Tank	2010	550 Gallons	N/A
TK12	TK12	Horizontal Aboveground Ethylene Glycol Tank	1990	200 Gallons	N/A
TK13	TK13	Horizontal Aboveground Ethylene Glycol Tank	1990	200 Gallons	N/A
TK14	TK14	Horizontal Aboveground Waste/Used Oil Tank	2000	75 Gallons	N/A
TK15	TK15	Horizontal Aboveground Waste Water Tank	2011	1,000 Gallons	N/A
TK16	TK16	Horizontal Aboveground Produced Fluids Tank	2007	1,000 Gallons	N/A
TK17	TK17	Vertical Aboveground Triethylene Glycol Tank	1999	330 Gallons	N/A
TK18	TK18	Horizontal Aboveground Lube Oil Tank	2012	1,000 Gallons	N/A
TK19	TK19	Horizontal Aboveground Waste/Used Oil Tank	2012	1,000 Gallons	N/A
TK20	TK20	Horizontal Aboveground Produced Fluids Tank	2013	3,000 Gallons	N/A
TK21	TK21	Horizontal Aboveground Lube Oil Tank	2013	500 Gallons	N/A
TK22	TK22	Vertical Aboveground Waste Water Tank	2012	1,000 Gallons	N/A
TK23	TK23	Horizontal Aboveground Ethylene Glycol Tank	2012	1,000 Gallons	N/A
TK25	TK25	Horizontal Aboveground Ice Chek Tank	2013	230 Gallons	N/A
TK26	TK26	Horizontal Aboveground Ice Chek Tank	2013	130 Gallons	N/A

## 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
<b>R13-2175D</b>	<b>April 30, 2012</b>
<b>R13-2346E</b>	<b>May 2, 2017</b>

## 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>NESHAPS</b>	National Emissions Standards for Hazardous Air Pollutants
<b>CBI</b>	Confidential Business Information	<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>CEM</b>	Continuous Emission Monitor	<b>NSPS</b>	New Source Performance Standards
<b>CES</b>	Certified Emission Statement	<b>PM</b>	Particulate Matter
<b>C.F.R. or CFR</b>	Code of Federal Regulations	<b>PM<sub>10</sub></b>	Particulate Matter less than 10µm in diameter
<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>FOIA</b>	Freedom of Information Act	<b>SIC</b>	Standard Industrial Classification
<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</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>UTM</b>	Universal Transverse Mercator
<b>mmBtu/hr</b>	Million British Thermal Units per Hour	<b>VEE</b>	Visual Emissions Evaluation
<b>mmft<sup>3</sup>/hr</b>	Million Cubic Feet Burned per Hour	<b>VOC</b>	Volatile Organic Compounds
<b>NA or N/A</b>	Not Applicable		
<b>NAAQS</b>	National Ambient Air Quality Standards		

### **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), record keeping, reporting, or compliance certification requirements.

[45CSR§30-2.39]

## 2.12. Reasonably Anticipated Operating Scenarios

- 2.12.1. The following are terms and conditions for reasonably anticipated operating scenarios identified in this permit.

- a. Contemporaneously with making a change from one operating scenario to another, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating and to document the change in reports submitted pursuant to the terms of this permit and 45CSR30.
- b. The permit shield shall extend to all terms and conditions under each such operating scenario; and
- c. The terms and conditions of each such alternative scenario shall meet all applicable requirements and the requirements of 45CSR30.  
[45CSR§30-5.1.i.]

### **2.13. Duty to Comply**

- 2.13.1. The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the West Virginia Code and the Clean Air Act and is grounds for enforcement action by the Secretary or USEPA; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.  
[45CSR§30-5.1.f.1.]

### **2.14. Inspection and Entry**

- 2.14.1. The permittee shall allow any authorized representative of the Secretary, upon the presentation of credentials and other documents as may be required by law, to perform the following:
  - a. At all reasonable times (including all times in which the facility is in operation) enter upon the permittee's premises where a source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
  - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - c. Inspect at reasonable times (including all times in which the facility is in operation) any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
  - d. Sample or monitor at reasonable times substances or parameters to determine compliance with the permit or applicable requirements or ascertain the amounts and types of air pollutants discharged.  
[45CSR§30-5.3.b.]

### **2.15. Schedule of Compliance**

- 2.15.1. For sources subject to a compliance schedule, certified progress reports shall be submitted consistent with the applicable schedule of compliance set forth in this permit and 45CSR§30-4.3.h., but at least every six (6) months, and no greater than once a month, and shall include the following:
  - a. Dates for achieving the activities, milestones, or compliance required in the schedule of compliance, and dates when such activities, milestones or compliance were achieved; and

- b. An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measure adopted.  
[45CSR§30-5.3.d.]

## **2.16. Need to Halt or Reduce Activity not a Defense**

- 2.16.1. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. However, nothing in this paragraph shall be construed as precluding consideration of a need to halt or reduce activity as a mitigating factor in determining penalties for noncompliance if the health, safety, or environmental impacts of halting or reducing operations would be more serious than the impacts of continued operations.  
[45CSR§30-5.1.f.2.]

## **2.17. Emergency**

- 2.17.1. An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.  
[45CSR§30-5.7.a.]
- 2.17.2. Effect of any emergency. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions of 45CSR§30-5.7.c. are met.  
[45CSR§30-5.7.b.]
- 2.17.3. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:
  - a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
  - b. The permitted facility was at the time being properly operated;
  - c. During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and
  - d. Subject to the requirements of 45CSR§30-5.1.c.3.C.1, the permittee submitted notice of the emergency to the Secretary within one (1) working day of the time when emission limitations were exceeded due to the emergency and made a request for variance, and as applicable rules provide. This notice, report, and variance request fulfills the requirement of 45CSR§30-5.1.c.3.B. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.  
[45CSR§30-5.7.c.]
- 2.17.4. In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof.  
[45CSR§30-5.7.d.]

- 2.17.5. This provision is in addition to any emergency or upset provision contained in any applicable requirement.  
[45CSR§30-5.7.e.]

## **2.18. Federally-Enforceable Requirements**

- 2.18.1. All terms and conditions in this permit, including any provisions designed to limit a source's potential to emit and excepting those provisions that are specifically designated in the permit as "State-enforceable only", are enforceable by the Secretary, USEPA, and citizens under the Clean Air Act.  
[45CSR§30-5.2.a.]
- 2.18.2. Those provisions specifically designated in the permit as "State-enforceable only" shall become "Federally-enforceable" requirements upon SIP approval by the USEPA.

## **2.19. Duty to Provide Information**

- 2.19.1. The permittee shall furnish to the Secretary within a reasonable time any information the Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Secretary copies of records required to be kept by the permittee. For information claimed to be confidential, the permittee shall furnish such records to the Secretary along with a claim of confidentiality in accordance with 45CSR31. If confidential information is to be sent to USEPA, the permittee shall directly provide such information to USEPA along with a claim of confidentiality in accordance with 40 CFR Part 2.  
[45CSR§30-5.1.f.5.]

## **2.20. Duty to Supplement and Correct Information**

- 2.20.1. Upon becoming aware of a failure to submit any relevant facts or a submittal of incorrect information in any permit application, the permittee shall promptly submit to the Secretary such supplemental facts or corrected information.  
[45CSR§30-4.2.]

## **2.21. Permit Shield**

- 2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.  
[45CSR§30-5.6.a.]
- 2.21.2. Nothing in this permit shall alter or affect the following:
- a. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance; or
  - b. The applicable requirements of the Code of West Virginia and Title IV of the Clean Air Act (Acid Deposition Control), consistent with § 408 (a) of the Clean Air Act.

- c. The authority of the Administrator of U.S. EPA to require information under § 114 of the Clean Air Act or to issue emergency orders under § 303 of the Clean Air Act.

[45CSR§30-5.6.c.]

## **2.22. Credible Evidence**

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

[45CSR§30-5.3.e.3.B. and 45CSR38]

## **2.23. Severability**

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

[45CSR§30-5.1.e.]

## **2.24. Property Rights**

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

[45CSR§30-5.1.f.4]

## **2.25. Acid Deposition Control**

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

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

- b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

- c. Any such allowance shall be accounted for according to the procedures established in rules promulgated under Title IV of the Clean Air Act.

[45CSR§30-5.1.d.]

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

[45CSR§30-5.1.a.2.]

### 3.0. Facility-Wide Requirements

#### 3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person is prohibited except as noted in 45CSR§6-3.1.  
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause or allow any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.  
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 CFR § 61.145, 40 CFR § 61.148, and 40 CFR § 61.150. The permittee must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 CFR § 61.145(b)(3)(I). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.  
[40 CFR 61 and 45CSR34]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.  
[45CSR§4-3.1 State-Enforceable only.]
- 3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.  
[45CSR§11-5.2]
- 3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.  
[W.Va. Code § 22-5-4(a)(14)]
- 3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 CFR §§ 82.154 and 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR § 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR § 82.161.  
[40 CFR 82, Subpart F]

- 3.1.8. **Risk Management Plan.** Should this stationary source, as defined in 40 CFR § 68.3, become subject to Part 68, then the owner or operator shall submit a risk management plan (RMP) by the date specified in 40 CFR § 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 CFR Part 70 or 71.

[40 CFR 68]

- 3.1.9. **Fugitive Particulate Matter.** 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 CFR Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable.
- b. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.
- c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:

1. The permit or rule evaluated, with the citation number and language.
2. The result of the test for each permit or rule condition.
3. A statement of compliance or non-compliance with each permit or rule condition.

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

### 3.4. Recordkeeping Requirements

3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:

- a. The date, place as defined in this permit and time of sampling or measurements;
- b. The date(s) analyses were performed;
- c. The company or entity that performed the analyses;
- d. The analytical techniques or methods used;
- e. The results of the analyses; and
- f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A., 45CSR13, R13-2175, 4.1.1., R13-2346, 4.4.1.]

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

[45CSR§30-5.1.c.2.B.]

3.4.3. **Odors.** For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.

[45CSR§30-5.1.c. State-Enforceable only.]

### 3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that,

based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

**[45CSR§30-4.4. and 5.1.c.3.D.]**

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

3.5.3. Except for the electronic submittal of the annual 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 email, as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

**DAQ:**

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

**US EPA:**

Associate Director  
Office of Air Enforcement and Compliance  
Assistance (3AP20)  
U. S. Environmental Protection Agency  
Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

**DAQ Compliance and Enforcement<sup>1</sup>:** [DEPAirQualityReports@wv.gov](mailto: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](mailto:DEPAirQualityReports@wv.gov)

**US EPA:**

[R3 APD Permits@epa.gov](mailto: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](mailto: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. 45 CSR 10 – Compressor engines (EN07 – EN19) have been excluded from the applicability of SO<sub>2</sub> and H<sub>2</sub>S limits. WVDAQ determined that 45CSR10 is not applicable to compressor engines.
  - b. 40 CFR 60 Subpart JJJJ – The compressor engines (EN07, EN08, EN10 – EN19) and auxiliary generator (AUX04) are not subject to this subpart since they were manufactured before the applicability date.
  - c. 40 CFR 60 Subpart OOOOa – This subpart does not apply to the facility since the facility does not have gas wells, centrifugal compressors, reciprocating compressors, and/or pneumatic controllers constructed, modified, or reconstructed after September 18, 2015. In addition, there has been no increase in compression horsepower at the facility.
  - d. 40 CFR 63 Subpart HHH – This subpart does not apply to the facility since the dehydration unit is located on the production section of the facility, which is not subject to this rule.
  - e. 40 CFR 63 Subpart DDDDD – The reboiler (RBR01) is not subject to this subpart since the production facility is not a major source of HAPs.
  - f. 40 CFR 63 Subpart JJJJJ – The reboiler (RBR01) is not subject to this subpart since it is considered a “process heater,” which is excluded from the definition of “boiler” in 40 CFR §63.11237.
  - g. 40 CFR 64 – The dehy unit (DEHY01) is exempt per 40 CFR §64.2(b)(1)(vi) for VOCs since condition 5.2.2. specifies a "continuous compliance determination method". EN09 is not subject to CAM since potential pre-control device emissions are less than major source thresholds per 40 CFR §64.2(a)(3).

### 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]

### **3.9. Limits On Operation**

The permittee shall burn natural gas meeting the FERC requirements exclusively for all combustion equipment.

[45CSR§30-12.7]

#### 4.0. Reboiler Requirements [RBR01]

##### 4.1. Limitations and Standards

- 4.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average. [45CSR§2-3.1. (RBR01)]
- 4.1.2. Emissions to the atmosphere from the reboiler stack (RBR01) shall not exceed the following limitations:

Pollutant	Maximum Potential Emissions (ton/yr)
Total VOC	0.02
NO <sub>x</sub>	0.28
CO	0.23
SO <sub>x</sub>	0.01
PM (Total)	0.02

[45CSR13, R13-2346, 5.1.1. (RBR01)]

##### 4.2. Monitoring Requirements

- 4.2.1. None.

##### 4.3. Testing Requirements

- 4.3.1. None.

##### 4.4. Recordkeeping Requirements

- 4.4.1. None.

##### 4.5. Reporting Requirements

- 4.5.1. None.

##### 4.6. Compliance Plan

- 4.6.1. None.

## 5.0. Dehydrator and Flare Requirements [DEHY01, F1]

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

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

Where, the factor, F, is 5.43 for an incinerator with a capacity of less than 15,000 lbs/hr

*Calculation for PM Emissions:*  $(5.43) \times (0.127 \text{ tons/hr}) = 0.69 \text{ lb/hr}$

[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, except smoke which is less than forty (40%) percent opacity, for a period or periods aggregating no more than eight (8) minutes per start-up.  
[45CSR§§6-4.3. and 4.4; 45CSR13, R13-2346, 5.1.4. (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, R13-2346, 5.1.4. (F1)]
- 5.1.5. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations, except as provided in 45CSR§10-4.1.a. through 45CSR§10-4.1.e.  
[45CSR§10-4.1. (F1)]
- 5.1.6. No person shall cause, suffer, allow or permit the combustion of any refinery process gas stream or any other process gas stream that contains hydrogen sulfide in a concentration greater than 50 grains per 100 cubic feet of gas except in the case of a person operating in compliance with an emission control and mitigation plan approved by the Director and U. S. EPA. In certain cases very small units may be considered exempt from this requirement if, in the opinion of the Director, compliance would be economically unreasonable and if the contribution of the unit to the surrounding air quality could be considered negligible.  
[45CSR§10-5.1. (F1)]
- 5.1.7. The maximum processing/production rate of natural gas through the modified dehydrator unit shall not exceed 23 mm scf/day and 8,395 mm scf/yr based on 8,760 hr/yr of operation.  
[45CSR13, R13-2346, 5.1.2. (F1)]
- 5.1.8. Actual benzene emissions from the dehydrator still column flare [F1] shall not equal or exceed 2,000 pounds per year (less than 0.9 megagrams per year), as determined by the procedures specified in Section 5.2.4. of this permit.  
[45CSR13, R13-2346, 5.1.3. (F1)]

5.1.9. Emissions to the atmosphere shall not exceed the following hourly and annual limitations:

Emission Point ID	Pollutant	Emission Limitations	
		lb/hr	ton/yr
DEHY01	Total VOC	3.64	15.93
	Benzene	0.1	0.42
	Total HAP	0.6	2.63
F1	Total VOC	0.01	0.03
	NO <sub>x</sub>	0.46	2.02
	CO	0.03	0.13
	PM Total	0.06	0.23
	PM 2.5	0.06	0.23
	SO <sub>2</sub>	0.01	0.02

[45CSR13, R13-2346, 5.1.1. (F1, DEHY01)]

5.1.10. The permittee shall meet all applicable area source requirements of 40 CFR 63, Subpart HH, including the following:

a. **Applicability and Designation of Affected Source** - Any source that has actual emissions of 5 tons per year or more of a single HAP, or 12.5 tons per year or more of a combination of HAP (i.e., 50 percent of the major source thresholds), shall update its major source determination within 1 year of the prior determination or October 15, 2012, whichever is later, and each year thereafter, using gas composition data measured during the preceding 12 months.

[45CSR34, 40CFR§63.760(c)]

b. **Exemptions** - The owner or operator of an area source is exempt from the requirements of 40 CFR §63.764(d) if the criteria listed in 40 CFR §63.764(e)(1)(i) or (ii) are met, except that the records of the determination of these criteria must be maintained as required in 40 CFR § 63.774(d)(1).

[45CSR34, 40 CFR §63.764(e)(1)]

1. 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 the procedures specified in condition 5.2.5.

[45CSR34, 40 CFR §63.764(e)(1)(ii)]

c. **General Standards** - At all times the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[45CSR34, 40 CFR §63.764(j)]

- d. The permittee shall meet all applicable requirements, including those not specified above, as given under 40 CFR 63, Subpart HH. Any final revisions made to Subpart HH will, where applicable, supercede those specifically cited in this section.

**[45CSR13, R13-2346, 5.1.5.a., b., c., and f.]**

- 5.1.11. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate the Deydration Unit Flare, F1, and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

**[45CSR§13-5.11. and R13-2346, 4.1.1. (F1)]**

## **5.2. Monitoring Requirements**

- 5.2.1. In order to demonstrate compliance with the flare opacity requirements of condition 5.1.2., the permittee shall conduct a Method 22 opacity 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 40 CFR 60, Appendix A, Method 22. The permittee shall conduct this test within one (1) year of permit issuance or initial startup whichever is later. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR part 60, Appendix A, Method 22 or from the lecture portion of 40 CFR part 60, Appendix A, Method 9 certification course. Visible emission checks shall be conducted at least once per calendar month.

**[45CSR13, R13-2346, 5.2.1. (F1)]**

- 5.2.2. In order to demonstrate compliance with the VOC emission limitation for DEHY01 in Section 5.1.9, the permittee shall monitor for the presence or absence of a flare pilot flame using a thermocouple or any other equivalent device, except during SSM events.

**[45CSR13, R13-2346, 5.2.2. (F1)]**

- 5.2.3. At a minimum of once per year, sample and analyze the inlet gas stream to the dehy utilizing gas chromatography for the presence of Sulfur. Proof of compliance with the 2000 ppm<sub>v</sub> SO<sub>2</sub> limit will be considered demonstrated if the gas chromatograph shows a total sulfur content of 0.57 grains/100ft<sup>3</sup> or less. Records shall be maintained on site or at a reasonably available location for a period of no less than five (5) years stating the date and time of analysis and the sulfur content of the gas sampled.

**[45CSR§30-5.1.c. (F1)]**

- 5.2.4. At a minimum of once per year, sample and analyze the inlet gas stream to the dehy utilizing gas chromatography for the presence of H<sub>2</sub>S. Proof of compliance with the 50 grains/100ft<sup>3</sup> limit will be considered demonstrated if the gas chromatograph shows a total H<sub>2</sub>S content of 0.0478 grains/100ft<sup>3</sup> or less. Records shall be maintained on site or at a reasonably available location for a period of no less than five (5) years stating the date of analysis and the hydrogen sulfide content of the gas sampled.

**[45CSR§30-5.1.c. (F1)]**

- 5.2.5. **Determination of glycol dehydration unit benzene emissions.** The determination of actual benzene emissions from a glycol dehydration unit shall be made using the procedure of paragraph i. below. Emissions shall be

determined either uncontrolled, or with federally enforceable controls in place. This requirement will demonstrate compliance with permit section 5.1.10.b.

- i. The owner or operator shall determine actual average benzene emissions using the model GRI-GLYCalc™, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc™ Technical Reference Manual. Inputs to the model shall be representative of actual operating conditions of the glycol dehydration unit and may be determined using the procedures documented in the Gas Research Institute (GRI) report entitled “Atmospheric Rich/Lean Method for Determining Glycol Dehydrator Emissions” (GRI-95/0368.1); or

[45CSR34, 40 CFR §63.772(b)(2)(i), 45CSR13, R13-2346, 5.1.5.d. (FI)]

### 5.3. Testing Requirements

- 5.3.1. The compliance determination for the glycol dehydration unit flare [F1] shall be conducted using Method 22 of 40 CFR part 60, appendix A, to determine visible emissions.

[45CSR13, R13-2346, 5.3.1. (FI)]

### 5.4. Recordkeeping Requirements

- 5.4.1. For the purpose of determining compliance with emission limitations set forth in Sections 5.1.8. and 5.1.9. of this permit, the permittee shall maintain daily and annual records of the dehydrator unit’s operating hours and natural gas flow to the contactor tower (wet or dry gas). These records shall be maintained on site for a period of five (5) years. Copies of these records shall be made available to the Director of the Division of Air Quality or his/her duly authorized representative upon request.

[45CSR13, R13-2346, 5.4.1.; 45CSR34, 40 CFR § 63.760(a)(1)(ii) (FI)]

Note: Meeting the production limits in Section 5.1.7. will show compliance with flare emission limits in Sections 5.1.8. and 5.1.9.

- 5.4.2. The permittee shall record the following for the glycol dehydrator flare [F1]:

1. Flare design (i.e., steam-assisted, air-assisted, or non-assisted);
2. All visible emission readings, heat content determinations, flowrate measurements, and exit velocity determinations made during the compliance determination; and
3. All hourly records and other recorded periods when the pilot flame is absent.

[45CSR13, R13-2346, 5.4.3.]

- 5.4.3. The recordkeeping provisions of 40 CFR part 63, subpart A, that apply and those that do not apply to owners and operators of sources subject to this subpart are listed in Table 2 of 40 CFR 63, subpart HH.

[45CSR34, 40 CFR §63.774(a)]

- 5.4.4. *Malfunctions.* The owner or operator of an affected source subject to this subpart shall maintain records of the occurrence and duration of each malfunction of operation ( i.e., process equipment) or the air pollution control equipment and monitoring equipment. The owner or operator shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR §63.764(j), 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 §63.774(g)]

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

(1) 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 the procedures specified in Condition 5.2.5.

[45CSR34, 40 CFR §63.764(e)(ii), 45CSR13, R13-2346, 5.1.5.e.]

5.4.6. **Record of Maintenance of Air Pollution Control Equipment.** For the Dehydration Flare, F1, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

[45CSR13, R13-2346, 4.4.2.]

5.4.7. **Record of Malfunctions of Air Pollution Control Equipment.** For the Dehydration Flare, F1, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

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

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

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

[45CSR13, R13-2346, 4.4.3.]

## 5.5. Reporting Requirements

5.5.1. The reporting provisions of subpart A of this part, that apply and those that do not apply to owners and operators of sources subject to this subpart are listed in Table 2 of 40 CFR 63 subpart HH.

[45CSR34, 40 CFR §63.775(a)]

## 5.6. Compliance Plan

5.6.1. None.

**6.0. Engine Requirements [EN07, EN08, AUX04]**

**6.1. Limitations and Standards**

- 6.1.1. Maximum emissions from the 810 hp Caterpillar - Model G3512 natural gas fired reciprocating engine (EN07) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (tpy)
Nitrogen Oxides	6.16	26.99
Carbon Monoxide	2.86	12.51
Volatile Organic Compounds	0.71	3.13
Formaldehyde	0.18	0.79

To demonstrate compliance, the quantity of natural gas that shall be consumed in engine EN07 shall not exceed 6,622 cubic feet per hour and  $58.01 \times 10^6$  cubic feet per year.

[45CSR13, R13-2175, 5.1.1. and 5.1.2. (EN07)]

- 6.1.2. The auxiliary generator (AUX04), Caterpillar Model No. G3512, shall not exceed the Maximum Design Heat Input (MDHI) of 6.00 mmBtu/hr as calculated using a natural gas heat content of 1,020 Btu/ft<sup>3</sup>; and shall combust only natural gas.

[45CSR13, R13-2346, 6.1.1. (AUX04)]

- 6.1.3. Emission rates from the operation of the auxiliary generator (AUX04) shall not exceed the following limits:

Pollutant	pounds/hour <sup>(1)</sup>	tons/year <sup>(2)</sup>
Carbon Monoxide (CO)	2.85	2.14
Oxides of Nitrogen (NO <sub>x</sub> )	3.57	2.68
Total Suspended Particulate (TSP)	0.05	0.04
Particulate Matter less than 10 microns (PM <sub>10</sub> )	0.05	0.04
Sulfur Dioxide (SO <sub>2</sub> )	0.01	0.01
Volatile Organic Compounds (VOCs)	1.28	0.96

(1) All pound/hour limits are instantaneous limits.

(2) The annual limits represent a twelve (12) month rolling total limits.

[45CSR13, R13-2346, 6.1.2. (AUX04)]

- 6.1.4. The combustion of natural gas in the auxiliary generator (AUX04) shall not exceed 8,823,000 cubic feet on an annual basis. The annual auxiliary generator fuel usage shall be calculated using a twelve (12) month rolling total. A twelve (12) month rolling total shall mean the sum of the natural gas consumed for the previous twelve (12) consecutive months.

[45CSR13, R13-2346, 6.1.3. (AUX04)]

- 6.1.5. If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d of 40 CFR 63 Subpart ZZZZ for non-emergency, non-black start 4SLB remote stationary RICE >500 HP.
- a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;<sup>1</sup>
  - b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and
  - c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.

<sup>1</sup>Sources have the option to utilize an oil analysis program as described in Condition 6.1.10. in order to extend the specified oil change requirement.

Owners and operators of existing non-emergency SI 4SLB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in 40 CFR §63.6675 as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in 40 CFR §63.6675, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

**[45CSR34, 40 CFR §§63.6603(a) and (f) and Table 2d(8) of 40 CFR 63 Subpart ZZZZ(EN07)]**

- 6.1.6. If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d of 40 CFR 63 Subpart ZZZZ for non-emergency, non-black start 2SLB stationary RICE.
- a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;<sup>1</sup>
  - b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first, and replace as necessary; and
  - c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.

<sup>1</sup>Sources have the option to utilize an oil analysis program as described in Condition 6.1.10. in order to extend the specified oil change requirement.

**[45CSR34, 40 CFR §63.6603(a) and Table 2d(6) of 40 CFR 63 Subpart ZZZZ(EN08)]**

- 6.1.7. a. You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.
- b. At all times you 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 you to make any further efforts to reduce emissions if levels required by this standard 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 CFR §63.6605 (EN07 and EN08)]**

- 6.1.8. If you operate an existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2d applies (Condition 6.1.5. for EN07, Condition 6.1.6. for EN08).  
**[45CSR34, 40 CFR §63.6625(h) (EN07 and EN08)]**
- 6.1.9. If you own or operate an existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:  
**[45CSR34, 40 CFR §§63.6625(e) and (e)(5) (EN08)]**
- 6.1.10. If you own or operate a stationary SI engine that is subject to the work, operation or management practices in Conditions 6.1.5. or 6.1.6., you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Conditions 6.1.5. or 6.1.6. The oil analysis must be performed at the same frequency specified for changing the oil in Conditions 6.1.5. or 6.1.6. 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 CFR §63.6625(j) (EN07 and EN08)]**

## 6.2. Monitoring Requirements

- 6.2.1. You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in Conditions 6.1.5. and 6.1.6. according to methods specified in Table 6 of 40 CFR 63, Subpart ZZZZ.

For existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are remote stationary RICE and existing non-emergency 2SLB stationary RICE located at an area source of HAP complying with Work or Management practices:

- i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or
- ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

**[45CSR34, 40 CFR §63.6640(a) and Table 6(9) of 40 CFR 63 Subpart ZZZZ(EN07 and EN08)]**

### **6.3. Testing Requirements**

- 6.3.1. None.

### **6.4. Recordkeeping Requirements**

- 6.4.1. To demonstrate compliance with Section 6.1.1., the permittee shall maintain monthly records and a 12-month rolling total of the amount of natural gas 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, R13-2175, 5.3.1. (EN07) and 45CSR§30-5.1.c.]**

- 6.4.2. For the purpose of determining compliance with the maximum throughput limits for the auxiliary generator (AUX04) set forth in Section 6.1.4. of this permit, the permittee shall maintain records of the date(s) the generator was used, the amount of fuel consumed, and the aggregated amount of fuel consumed for the previous twelve (12) months. Such records shall be retained by the permittee for at least five (5) years. Any records submitted to the agency upon request by the Director shall be certified by a responsible official.

**[45CSR13, R13-2346, 6.4.1. (AUX04)]**

- 6.4.3. a. If you must comply with the emission and operating limitations, you must keep the records described in paragraphs 1. through 5. below.
1. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR §63.10(b)(2)(xiv).
  2. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
  3. Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).
  4. Records of all required maintenance performed on the air pollution control and monitoring equipment.
  5. Records of actions taken during periods of malfunction to minimize emissions in accordance with Condition 6.1.7.b., including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- b. You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.
- c. You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate an existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Conditions 6.1.5. and 6.1.6.

**[45CSR34, 40 CFR §§63.6655(a), (d), (e), and (e)(3) (EN07 and EN08)]**

- 6.4.4. a. Your records must be in a form suitable and readily available for expeditious review according to 40 CFR §63.10(b)(1).
- b. As specified in 40 CFR §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- c. You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR §63.10(b)(1).

**[45CSR34, 40 CFR §63.6660 (EN07 and EN08)]**

## **6.5. Reporting Requirements**

- 6.5.1. a. You must report each instance in which you did not meet each emission limitation or operating limitation in Conditions 6.1.5. and 6.1.6. to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in Condition 6.5.2.

- b. You must also report each instance in which you did not meet the requirements in Table 8 to 40 CFR 63 subpart ZZZZ that apply to you.

**[45CSR34, 40 CFR §§63.6640(b), 63.6640(e) (EN07 and EN08)]**

- 6.5.2. a. For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs b.1. through 4. below and the information in paragraphs a.1. and 2. of this section.

1. The total operating time of the stationary RICE at which the deviation occurred during the reporting period.
2. Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

- b. The Compliance report must contain the information in paragraphs below.

1. Company name and address.
2. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
3. Date of report and beginning and ending dates of the reporting period.
4. If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with Condition 6.1.7.b, including actions taken to correct a malfunction.

**[45CSR34, 40 CFR §§63.6650(d) and (c) (EN07 and EN08)]**

- 6.5.3. You must submit all of the notifications in 40 CFR §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate an existing stationary RICE located at an area source of HAP emissions.  
**[45CSR34, 40 CFR §§63.6645(a) and (a)(2) (EN07 and EN08)]**

## **6.6. Compliance Plan**

- 6.6.1. None.

**7.0. Engine Requirements [EN09]**

**7.1. Limitations and Standards**

7.1.1. Maximum emissions from the 750 hp Ajax DPC-2804LE natural gas fired reciprocating engine (EN09) shall not exceed the following limits:

Pollutant	Maximum Hourly Emissions (lb/hr)	Maximum Annual Emissions (tpy)
Nitrogen Oxides	1.66	7.2
Carbon Monoxide	1.24	5.4
Volatile Organic Compounds	0.5	2.2
Formaldehyde	0.33	1.43

To demonstrate compliance, the quantity of natural gas that shall be consumed in engine EN09 equipped with an oxidation catalyst (CC01) shall not exceed 5,614 cubic feet per hour and  $49.18 \times 10^6$  cubic feet per year. [45CSR13, R13-2175, 5.1.3. and 5.1.4. (EN09)]

7.1.2. The provisions of 40CFR60 Subpart JJJJ are applicable to owners, and operators of stationary spark ignition (SI) internal combustion engines (ICE) as specified below. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

a. Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured:

1. On or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP.

[40CFR§60.4230(a)(4)(ii); 45CSR13 - R13-2175, 6.1.1. and 45CSR16]

7.1.3. 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 below 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 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 the Table below, then the owners and operators may meet the CO certification (not field testing) standard for which the engine was certified.

Engine type and fuel	Maximum engine power	Manufacture date	Emission standards <sup>a</sup>					
			g/HP-hr			ppmvd at 15% O <sub>2</sub>		
			NO <sub>x</sub>	CO	VOC <sup>b</sup>	NO <sub>x</sub>	CO	VOC <sup>b</sup>
Non-Emergency SI Lean Burn Natural Gas and LPG	500 ≤ HP < 1,350	after 7/1/2010	1	2	0.7	82	270	60

<sup>a</sup> Owners and operators of stationary non-certified SI engines may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O<sub>2</sub>.

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

[40CFR§60.4233(e) and Table 1; 45CSR13 - R13-2175, 6.2.1. and 45CSR16]

7.1.4. 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 Section 7.1.3.

[40CFR§60.4233(h); 45CSR13 - R13-2175, 6.2.2. and 45CSR16]

7.1.5. Owners and operators of stationary SI ICE must operate and maintain stationary SI ICE that achieve the emission standards as required in Section 7.1.3. over the entire life of the engine.

[40CFR§60.4234; 45CSR13 - R13-2175, 6.2.3. and 45CSR16]

7.1.6. After July 1, 2009, owners and operators may not install stationary SI ICE with a maximum engine power of greater than or equal to 500 HP that do not meet the applicable requirements in 40CFR§60.4233, except that lean burn engines with a maximum engine power greater than or equal to 500 HP and less than 1,350 HP that do not meet the applicable requirements in 40CFR§60.4233 may not be installed after January 1, 2010.

[40CFR§60.4236(b); 45CSR13 - R13-2175, 6.3.1. and 45CSR16]

7.1.7. Requirements for use of Catalytic Reduction Devices - No person shall knowingly:

- a. Remove or render inoperative the Cameron Catalytic Converter (CC01);
- b. Install any part or component when the principal effect of the part or component is to bypass, defeat or render inoperative the Cameron Catalytic Converter (CC01); or
- c. Cause or allow engine exhaust gases to bypass the Cameron Catalytic Converter (CC01).

[45CSR13, R13-2175, 5.1.5. (CC01)]

7.1.8. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, maintain, and operate the control device listed as CC01 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

[45CSR13 - R13-2175, 4.1.2. (CC01)]

7.1.9. **What standards apply to reciprocating compressor affected facilities?** For each reciprocating compressor affected facility, you must replace the reciprocating compressor rod packing according to either paragraph 1. or 2. below.

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

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

[40 CFR §60.5385(a) and 45CSR16]

## 7.2. Monitoring Requirements

7.2.1. If you are an owner or operator of a stationary SI internal combustion engine and must comply with the emission standards specified in Section 7.1.3., you must demonstrate compliance by:

Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in Section 7.1.3. and according to the requirements specified in 40CFR§60.4244, as applicable, and according to the following:

If you are an owner or operator of a stationary SI internal combustion engine greater than 500 HP, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance.

**[40CFR§§60.4243(b), (b)(1), (b)(2), and (b)(2)(ii); 45CSR13 - R13-2175, 6.4.1. and 45CSR16]**

7.2.2. 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 Section 7.1.3.

**[40CFR§60.4243(e); 45CSR13 - R13-2175, 6.4.2. and 45CSR16]**

7.2.3. 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.

**[40CFR§60.4243(g); 45CSR13 - R13-2175, 6.4.3. and 45CSR16]**

7.2.4. Catalytic Oxidizer Control Devices - 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:

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

**[45CSR13, R13-2175, 5.2.1. (CC01)]**

7.2.5. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

**[40CFR§60.5370(b) and 45CSR16]**

7.2.6. For each reciprocating compressor affected facility complying with Section 7.1.9., you must demonstrate continuous compliance according to paragraphs 1. and 2. below.

1. You must continuously monitor the number of hours of operation for each reciprocating compressor affected facility or track the number of months since initial startup, or the date of the most recent reciprocating compressor rod packing replacement, whichever is later.
2. You must replace the reciprocating compressor rod packing before the total number of hours of operation reaches 26,000 hours or the number of months since the most recent rod packing replacement reaches 36 months.

**[40CFR§§60.5385(c), 60.5415(c)(1) and (c)(3), and 45CSR16]**

### 7.3. Testing Requirements

- 7.3.1. Owners and operators of stationary SI ICE who conduct performance tests must follow the procedures in paragraphs a. through f. of this section.
- a. Each performance test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and according to the requirements in §60.8 and under the specific conditions that are specified by Table 2 to 40 C.F.R. part 60, subpart JJJJ.
  - b. You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c). If your stationary SI internal combustion engine is non-operational, you do not need to startup the engine solely to conduct a performance test; however, you must conduct the performance test immediately upon startup of the engine.
  - c. You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must be conducted within 10 percent of 100 percent peak (or the highest achievable) load and last at least 1 hour.
  - d. To determine compliance with the NO<sub>x</sub> mass per unit output emission limitation, convert the concentration of NO<sub>x</sub> in the engine exhaust using Equation 1 of this section:

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

Where:

ER = Emission rate of NO<sub>x</sub> in g/HP-hr.

C<sub>d</sub> = Measured NO<sub>x</sub> concentration in parts per million by volume (ppmv).

1.912×10<sup>-3</sup> = Conversion constant for ppm NO<sub>x</sub> to grams per standard cubic meter at 20 degrees Celsius.

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

T = Time of test run, in hours.

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

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

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

Where:

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

C<sub>d</sub> = Measured CO concentration in ppmv.

1.164×10<sup>-3</sup> = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

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

T = Time of test run, in hours.

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

- f. For purposes of this subpart, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC mass per unit output emission limitation, convert the concentration of VOC in the engine exhaust using Equation 3 of this section:

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

Where:

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

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

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

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

T = Time of test run, in hours.

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

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

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

Where:

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

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

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

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

Where:

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

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

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

Where:  $C_{peq}$  = Concentration of compound i in mg of propane equivalent per DSCM.  
[40CFR§§60.4244(a)-(g); 45CSR13 - R13-2175, 6.5.1. and 45CSR16]

## 7.4. Notification, Reporting, and Recordkeeping

- 7.4.1. 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 paragraphs a.1. through 4. of this section.
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 not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR §60.4243(a)(2), documentation that the engine meets the emission standards.

- b. Owners and operators of stationary SI ICE that are subject to performance testing must submit a copy of each performance test as conducted in 40 CFR §60.4244 within 60 days after the test has been completed. [40CFR§§60.4245(a) and (d); 45CSR13 - R13-2175, 6.6.1. and 45CSR16]
- 7.4.2. To demonstrate compliance with Section 7.1.1., the permittee shall maintain monthly records and a 12-month rolling total of the amount of natural gas consumed in each engine and the hours of operation of the 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, R13-2175, 5.3.1. (EN09) and 45CSR§30-5.1.c.]
- 7.4.3. **Record of Malfunctions of Air Pollution Control Equipment.** For the control device listed as CC01, 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:
- The equipment involved.
  - Steps taken to minimize emissions during the event.
  - The duration of the event.
  - The estimated increase in emissions during the event.

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

- The cause of the malfunction.
  - Steps taken to correct the malfunction.
  - Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.
- [45CSR13, R13-2175, 4.1.3. (CC01)]
- 7.4.4. **Reporting requirements.** You must submit annual reports containing the information specified in paragraphs 1. and 2. below to the Administrator. Annual reports are due no later than same date each year as the initial annual report. If you own or operate more than one affected facility, you may submit one report for multiple affected facilities provided the report contains all of the information required as specified in paragraphs 1. and 2. below. Annual reports may coincide with Title V reports as long as all the required elements of the annual report are included. You may arrange with the Administrator a common schedule on which reports required by this part may be submitted as long as the schedule does not extend the reporting period.
- The general information specified in paragraphs i. through iv. below.
    - The company name and address of the affected facility.
    - An identification of each affected facility being included in the annual report.
    - Beginning and ending dates of the reporting period.
    - A certification by a certifying official of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
  - For each reciprocating compressor affected facility, the information specified in paragraphs i. and ii. below.

- i. The cumulative number of hours of operation or the number of months since initial startup, or since the previous reciprocating compressor rod packing replacement, whichever is later.
- ii. Records of deviations specified in paragraph (c)(3)(iii) of 40 CFR §60.5420 that occurred during the reporting period.

[40CFR§§60.5385(d), 60.5415(c)(2), 60.5420(b), and 45CSR16]

- 7.4.5. **Recordkeeping requirements.** You must maintain the records identified as specified in 40 CFR §60.7(f) and in paragraphs i. through iii. of this section. All records required by this subpart must be maintained either onsite or at the nearest local field office for at least 5 years.

For each reciprocating compressors affected facility, you must maintain the records in paragraphs i. through iii. of this section.

- i. Records of the cumulative number of hours of operation or number of months since initial startup, or the previous replacement of the reciprocating compressor rod packing, whichever is later.
- ii. Records of the date and time of each reciprocating compressor rod packing replacement as specified in Condition 7.1.9.
- iii. Records of deviations in cases where the reciprocating compressor was not operated in compliance with the requirements specified in Condition 7.1.9.

[40CFR§§60.5385(d), 60.5415(c)(2), 60.5420(c)(3), and 45CSR16]

## 7.5. Compliance Plan

- 7.5.1. None.