

West Virginia Department of Environmental Protection  
*Division of Air Quality*

Joe Manchin, III  
Governor

Stephanie R. Timmermeyer  
Cabinet Secretary

# Permit to Operate



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

*Issued to:*  
**Dominion Transmission, Inc.**  
Cornwell Station/Clendenin  
R30-03900051-2007

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*John A. Benedict*  
*Director*

*Issued: April 16, 2007 • Effective: April 30, 2007*

*Expiration: April 16, 2012 • Renewal Application Due: October 16, 2011*

Permit Number: **R30-03900051-2007**  
Permittee: **Dominion Transmission, Inc.**  
Facility Name: Cornwell Station  
Mailing Address: 200 River Haven Road  
Clendenin, WV 25045

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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
Mailing Address:	200 River Haven Road, Clendenin, WV 25045
Telephone Number:	(304) 548-6901
Type of Business Entity:	Corporation
Facility Description:	Natural Gas Transmission Plant
SIC Codes:	4922
UTM Coordinates:	476.19 km Easting • 4,259.58 km Northing • Zone 17

*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

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
001-01 (Engine 07)	EN07	Reciprocating Engine/Integral Compressor; Caterpillar Model 63512	1998	810 hp	N/A
001-02	EN08	Reciprocating Engine/Integral Compressor; Cooper GMX-8TF	1969	440 hp	N/A
001-03	EN09	Reciprocating Engine/Integral Compressor; Cooper GMXE-8	1962	660 hp	N/A
001-04	EN10	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF	1947	1350 hp	N/A
001-05	EN11	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF	1947	1350 hp	N/A
001-06	EN12	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF	1947	1350 hp	N/A
001-07	EN13	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF	1947	1350 hp	N/A
001-08	EN14	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF	1947	1350 hp	N/A
001-09	EN15	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF	1947	1350 hp	N/A
001-0A	EN16	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF	1947	1350 hp	N/A
001-0B	EN17	Reciprocating Engine/Integral Compressor; Cooper GMV-A-10TF	1947	1350 hp	N/A
001-0C	EN18	Reciprocating Engine/Integral Compressor; Ingersoll Rand 410-KVT	1962	2500 hp	N/A
001-0D	EN19	Reciprocating Engine/Integral Compressor; Ingersoll Rand 410-KVT	1962	2500 hp	N/A
002-04	AUX04	Reciprocating Engine/Generator, Caterpillar G3512	2002	810 hp	N/A
004-01	CPR01	Air Compressor; Onan MS/4390E	1985	25 hp	N/A
005-01	DEHY01B	Dehydration Unit Still; Natco Model SHV-3	1999	23 mmscf/day	0001
006-01	RBR01 (DEHY 0A in R13-2346B)	Dehy Reboiler; Natco 5GR-375-DX5	1999	0.62 mm Btu/hr	N/A
0001	DEHY01 (DEHY 0B in R13-2346B)	Dehydrator Unit Still Column Flare	1999	2.2 MMBtu/hr	N/A

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

### **2.3. Permit Expiration and Renewal**

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

### **2.4. Permit Actions**

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

### **2.5. Reopening for Cause**

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

**[45CSR§30-6.6.a.]**

## **2.6. Administrative Permit Amendments**

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

## **2.7. Minor Permit Modifications**

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

## **2.8. Significant Permit Modification**

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

## **2.9. Emissions Trading**

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

## **2.10. Off-Permit Changes**

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

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

**[45CSR§30-5.9.]**

## **2.11. Operational Flexibility**

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

**[45CSR§30-5.8]**

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

**[45CSR§30-5.8.a.]**

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

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

**[45CSR§30-5.8.c.]**

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

**[45CSR§30-2.39]**

## **2.12. Reasonably Anticipated Operating Scenarios**

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

[45CSR§30-5.1.i.]

## **2.13. Duty to Comply**

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

[45CSR§30-5.1.f.1.]

## **2.14. Inspection and Entry**

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

[45CSR§30-5.3.b.]

## 2.15. Schedule of Compliance

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

[45CSR§30-5.3.d.]

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

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

[45CSR§30-5.1.f.2.]

## 2.17. Emergency

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

[45CSR§30-5.7.a.]

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

[45CSR§30-5.7.b.]

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

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

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

[45CSR§30-5.7.c.]

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

[45CSR§30-5.7.d.]

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

[45CSR§30-5.7.e.]

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

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

[45CSR§30-5.2.a.]

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

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

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

[45CSR§30-5.1.f.5.]

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

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

[45CSR§30-4.2.]

## **2.21. Permit Shield**

- 2.21.1. Compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance provided that such applicable requirements are included and are specifically

identified in this permit or the Secretary has determined that other requirements specifically identified are not applicable to the source and this permit includes such a determination or a concise summary thereof.

**[45CSR§30-5.6.a.]**

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

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

**[45CSR§30-5.6.c.]**

## **2.22. Credible Evidence**

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

**[45CSR§30-5.3.e.3.B. and 45CSR38]**

## **2.23. Severability**

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

**[45CSR§30-5.1.e.]**

## **2.24. Property Rights**

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

**[45CSR§30-5.1.f.4]**

## **2.25. Acid Deposition Control**

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

- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the acid deposition control program, provided that such increases do not require a permit revision under any other applicable requirement.
- b. No limit shall be placed on the number of allowances held by the source. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement.

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

**[45CSR§30-5.1.d.]**

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

**[45CSR§30-5.1.a.2.]**

### 3.0 Facility-Wide Requirements

#### 3.1. Limitations and Standards

- 3.1.1. **Open burning.** The open burning of refuse by any person, firm, corporation, association or public agency is prohibited except as noted in 45CSR§6-3.1.  
[45CSR§6-3.1.]
- 3.1.2. **Open burning exemptions.** The exemptions listed in 45CSR§6-3.1 are subject to the following stipulation: Upon notification by the Secretary, no person shall cause, suffer, allow or permit any form of open burning during existing or predicted periods of atmospheric stagnation. Notification shall be made by such means as the Secretary may deem necessary and feasible.  
[45CSR§6-3.2.]
- 3.1.3. **Asbestos.** The permittee is responsible for thoroughly inspecting the facility, or part of the facility, prior to commencement of demolition or renovation for the presence of asbestos and complying with 40 C.F.R. § 61.145, 40 C.F.R. § 61.148, and 40 C.F.R. § 61.150. The permittee, owner, or operator must notify the Secretary at least ten (10) working days prior to the commencement of any asbestos removal on the forms prescribed by the Secretary if the permittee is subject to the notification requirements of 40 C.F.R. § 61.145(b)(3)(i). The USEPA, the Division of Waste Management and the Bureau for Public Health - Environmental Health require a copy of this notice to be sent to them.  
[40 C.F.R. §61.145(b) and 45CSR15]
- 3.1.4. **Odor.** No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor at any location occupied by the public.  
[45CSR§4-3.1 State-Enforceable only.]
- 3.1.5. **Standby plan for reducing emissions.** When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions of air pollutants in accordance with the objectives set forth in Tables I, II, and III of 45CSR11.  
[45CSR§11-5.2]
- 3.1.6. **Emission inventory.** The permittee is responsible for submitting, on an annual basis, an emission inventory in accordance with the submittal requirements of the Division of Air Quality.  
[W.Va. Code § 22-5-4(a)(14)]
- 3.1.7. **Ozone-depleting substances.** For those facilities performing maintenance, service, repair or disposal of appliances, the permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 C.F.R. Part 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the prohibitions and required practices pursuant to 40 C.F.R. §§ 82.154 and 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 C.F.R. § 82.158.

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

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

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

**[40 C.F.R. 68]**

- 3.1.9. No person shall cause, suffer, allow or permit fugitive particulate matter to be discharged beyond the boundary lines of the property on which the discharge originates or at any public or residential location, which causes or contributes to statutory air pollution.

**[45CSR§17-3.1]**

- 3.1.10. The total volatile hazardous air pollutant (VHAP) concentration in the process stream shall be less than 10% by weight, and therefore the facility shall be exempt from equipment leak monitoring per 40 C.F.R. §63.764(e)(2).

**[45CSR13, R13-2346B, A.11]**

## **3.2. Monitoring Requirements**

- 3.2.1. N/A

## **3.3. Testing Requirements**

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

- c. All periodic tests to determine mass emission limits from or air pollutant concentrations in discharge stacks and such other tests as specified in this permit shall be conducted in accordance with an approved test protocol. Unless previously approved, such protocols shall be submitted to the Secretary in writing at least thirty (30) days prior to any testing and shall contain the information set forth by the Secretary. In addition, the permittee shall notify the Secretary at least fifteen (15) days prior to any testing so the Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

[WV Code § 22-5-4(a)(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, R13-2175C, 4.3.1]

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

[45CSR§30-5.1.c.2.B.]

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

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

- 3.4.4. The permittee shall maintain records and data, kept in a readily accessible location, demonstrating that pieces of equipment exempt from equipment leaks monitoring are (1) not in VHAP service or (2) are in VHAP service for less than 300 hours per year.

[45CSR34; 40 C.F.R §63.764(c)(3), 40 C.F.R §63.764(e)(2), 40 C.F.R §63.774(d)(2) and R13-2346B, A.11]

### 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. All notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, mailed first class or by private carrier with postage prepaid to the address(es) set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

**If to the DAQ:**

Director  
WVDEP  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
  
Phone: 304/926-0475  
FAX: 304/926-0478

**If to the US EPA:**

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

- 3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.  
[45CSR§30-8.]
- 3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification.  
[45CSR§30-5.3.e.]
- 3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such

reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4.  
[45CSR§30-5.1.c.3.A.]

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

3.5.8. **Deviations.**

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

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

[45CSR§30-5.1.c.3.C.]

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

[45CSR§30-5.1.c.3.B.]

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

[45CSR§30-4.3.h.1.B.]

### 3.6. Compliance Plan

3.6.1. N/A

### 3.7. Permit Shield

- 3.7.1. The permittee is hereby granted a permit shield in accordance with 45CSR§30-5.6. The permit shield applies provided the permittee operates in accordance with the information contained within this permit.
- 3.7.2. The following requirements specifically identified are not applicable to the source based on the determinations set forth below. The permit shield shall apply to the following requirements provided the conditions of the determinations are met.
- N/A

### 3.8. Emergency Operating Scenario

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

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

[45CSR§30-12.7]

### 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 Source-Specific 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]

4.1.2. Emissions to the atmosphere from the reboiler stack shall not exceed the following annual limitations:

Pollutant	Emission Factor <sup>(1)</sup> (lb/10 <sup>6</sup> ft <sup>3</sup> )	Annual Emission Limitations <sup>(2)</sup> (ton/yr)
VOC	5.5	0.02
NO <sub>x</sub>	100	0.28
CO	84	0.23
SO <sub>x</sub>	0.6	0.01
PM (Total)	7.6	0.02

(1) AP42, Tables 1.4-1 (Revised 2/98) and 1.4-2 (Revised 3/98).  
(2) Based on a maximum heat input to the reboiler of 0.62 mm Btu/hr (638 ft<sup>3</sup>/hr at 1,000 Btu/ft<sup>3</sup> of natural gas) and 8,760 hours per year of operation.

[45CSR13, R13-2346B, A.6] [RBR01]

### 4.2. Monitoring Requirements

4.2.1. N/A

### 4.3. Testing Requirements

4.3.1. N/A

### 4.4. Recordkeeping Requirements

4.4.1. N/A

### 4.5. Reporting Requirements

4.5.1. N/A

### 4.6. Compliance Plan

4.6.1. N/A

## 5.0 Source-Specific Requirements [DEHY01B, DEHY01]

### 5.1 Limitations and Standards

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

Emissions (lb/hr) = F x Incinerator Capacity (tons/hr)

Where, the factor, F, is as indicated in Table I below:

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

Incinerator Capacity: Factor F

A. Less than 15,000 lbs/hr 5.43

B. 15,000 lbs/hr or greater 2.72

*Calculation for PM Emissions:*

$(5.43) \times (0.0143 \text{ tons/hr}) = 0.0776 \text{ lb/hr}$

[45CSR§6-4.1] [DEHY01]

- 5.1.2. Emission of Visible Particulate Matter --No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.  
[45CSR§6-4.3; 45CSR13, R13-2346B, B.3][DEHY01]
- 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][ DEHY01]
- 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, R13-2346B, B.3][DEHY01]
- 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] [DEHY01]
- 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] [DEHY01]

5.1.7. Emissions to the atmosphere from the dehydrator still column flare shall not exceed the following hourly and annual limitations:

Pollutant	Emission Factor	Emission Limitations											
		(lb/hr)	(ton/yr) <sup>(2)</sup>										
VOC	GRI-GLYCalc Version 3.0	0.84	3.69										
NO <sub>x</sub>	0.068 lb/10 <sup>6</sup> Btu <sup>(1)</sup>	0.11 <sup>(3)</sup>	0.48 <sup>(3)</sup>										
CO	0.37 lb/10 <sup>6</sup> Btu <sup>(1)</sup>	0.60 <sup>(3)</sup>	2.61 <sup>(3)</sup>										
SO <sub>2</sub>	0.057 lb/10 <sup>6</sup> Btu <sup>(4)</sup>	0.10 <sup>(3)</sup>	0.41 <sup>(3)</sup>										
<p>(1) AP42, Tables 13.5-1 (English Units), "Emission Factors for Flare Operation." Revised 9/91. Reformatted 1/95.</p> <p>(2) Based on 8,760 hours per year of operation.</p> <p>(3) Based on a Maximum Total Heat Release resulting from burning of the Still Column Flare of 1,607,198 Btu/hr (see below).</p> <table style="margin-left: 40px;"> <tr> <td>638 ft<sup>3</sup>/hr of natural gas (ignitor gas) x 1,000 Btu/ft<sup>3</sup> =</td> <td>638,000 Btu/hr</td> </tr> <tr> <td>264 ft<sup>3</sup>/hr of natural gas (stripping gas) x 1,000 Btu/ft<sup>3</sup> =</td> <td>264,000 Btu/hr</td> </tr> <tr> <td>10 ft<sup>3</sup>/hr of natural gas (pilot gas) x 1,000 Btu/ft<sup>3</sup> =</td> <td>10,000 Btu/hr</td> </tr> <tr> <td>*30.226 lb/hr of hydrocarbons x 23,000 Btu/lb =</td> <td>695,198 Btu/hr</td> </tr> <tr> <td></td> <td style="border-top: 1px dashed black;">1,607,198 Btu/hr</td> </tr> </table> <p>*Note that:</p> <ol style="list-style-type: none"> <li>30.226 lb/hr of hydrocarbons is the total uncontrolled regenerator emissions as calculated by the computer program GRI-GLYCalc.</li> <li>The value of 23,000 Btu/lb of hydrocarbons burned is based on the heat release values for similar type hydrocarbons/fuels: 20-23,000 Btu/lb of Natural Gas; 19, 500 Btu/lb of #2 Diesel Oil; and 18,500 Btu/lb of #6 Residual Oil.</li> </ol> <p>(4) SO<sub>2</sub> emission factor from Columbia Gas Transmission Corporation's Technical Approach Specification, CGT150V2, author: Al Armendariz, creation date: October 1996 (revised July 1997).</p>				638 ft <sup>3</sup> /hr of natural gas (ignitor gas) x 1,000 Btu/ft <sup>3</sup> =	638,000 Btu/hr	264 ft <sup>3</sup> /hr of natural gas (stripping gas) x 1,000 Btu/ft <sup>3</sup> =	264,000 Btu/hr	10 ft <sup>3</sup> /hr of natural gas (pilot gas) x 1,000 Btu/ft <sup>3</sup> =	10,000 Btu/hr	*30.226 lb/hr of hydrocarbons x 23,000 Btu/lb =	695,198 Btu/hr		1,607,198 Btu/hr
638 ft <sup>3</sup> /hr of natural gas (ignitor gas) x 1,000 Btu/ft <sup>3</sup> =	638,000 Btu/hr												
264 ft <sup>3</sup> /hr of natural gas (stripping gas) x 1,000 Btu/ft <sup>3</sup> =	264,000 Btu/hr												
10 ft <sup>3</sup> /hr of natural gas (pilot gas) x 1,000 Btu/ft <sup>3</sup> =	10,000 Btu/hr												
*30.226 lb/hr of hydrocarbons x 23,000 Btu/lb =	695,198 Btu/hr												
	1,607,198 Btu/hr												

**[45CSR13, R13-2346B, A.12][DEHY01]**

5.1.8. 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, R13-2346B, A.5][DEHY01]**

5.1.9. Except as noted in 40 C.F.R. § 63.762(b), the permittee shall not shut down equipment that is required to comply with the provisions of MACT subpart HH when emissions are being routed to such equipment, unless such equipment is malfunctioning or if continued operation during startup, shutdown, or malfunction may cause damage to such equipment.

**[45CSR34; 40 C.F.R. § 63.762(b)] [DEHY01]**

During startups, shutdowns, and malfunctions, the permittee shall implement measures to prevent or minimize excess emissions to the maximum extent practical.

**[45CSR34; 40 C.F.R. § 63.762(c)] [DEHY01]**

5.1.10. The control device used to reduce HAP emissions shall be a flare that is designed and operated in accordance with the requirements of 40 C.F.R §63.11(b) (See Attachment A to this permit). Per 40 C.F.R § 63.772(e)(2)(i), a compliance determination for the flare shall be conducted using Method 22 of 40 CFR Part 60, Appendix A,

to determine visible emissions. In order for the dehydrator still column flare to be exempt from the control device performance testing requirements per 40 C.F.R § 63.772(e)(1)(i), the dehydrator still column flare shall be designed and operated in accordance with the requirements of 40 C.F.R § 63.11(b).

**[45CSR13, R13-2346B, A.10][DEHY01]**

- 5.1.11. Actual benzene emissions from the dehydrator still column flare shall not equal or exceed 2,000 pounds per year (less than 0.9 megagrams per year).

**[45CSR13, R13-2346B, A.7][DEHY01]**

- 5.1.12. The dehydration plant is subject to 40 CFR 63, Subpart HH, “National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities.” The annual benzene emission limit established in Section 5.1.11 of this permit meets the exemption criteria listed in 40 C.F.R §63.764(e)(ii). Records documenting the actual average benzene emissions per year are to be determined in accordance with 40 C.F.R §63.772(b)(2) which allows emissions to be calculated using the model GRI-GLYCalc™, Version 3.0 or higher, or through 3 runs of direct measurements using EPA Test Method 18, 40 CFR 60, Appendix A. Should actual annual benzene emissions equal or exceed 2,000 pounds, the control requirements in 40 C.F.R §63.765 (including equipment leak monitoring of the closed vent system per 40 C.F.R §63.765(b)(1) and 40 C.F.R §63.771(c)), the monitoring requirements in 40 C.F.R §63.773, the record keeping requirements in 40 C.F.R §63.774, and the reporting requirements in 40 C.F.R §63.775 shall immediately become applicable.

**[45CSR13, R13-2346B, A.8][DEHY01]**

- 5.1.13. The permittee is exempted from preparing and maintaining the dehydration plant’s Startup, Shutdown, and Malfunction Plan (SSMP) as required by 40 C.F.R §63.6(e). This exemption is provided for in 40 C.F.R §63.762(e) for facilities that meet the exemptions provided in 40 C.F.R §63.764(e). Should actual annual benzene emissions equal or exceed 2,000 pounds, the requirement to prepare a SSMP shall immediately become applicable.

**[45CSR13, R13-2346B, A.9][DEHY01]**

## **5.2. Monitoring Requirements**

- 5.2.1. Visual emission checks of each emission point specified shall be conducted monthly in accordance with 40 CFR 60 Appendix A Method 22. If during these checks or at any other time visible emissions are observed at any emission point, compliance shall be determined by conducting tests in accordance with Method 9 of 40 C.F.R. 60, Appendix A (July 1, 1994) and taking corrective action within three days unless the permittee can demonstrate a valid reason that the time limit should be extended. 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 each visible emission check, the visible emissions survey results and, if appropriate, all corrective actions taken.

**[45CSR§30-5.1.c] [DEHY01]**

- 5.2.2. 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] [DEHY01]**

- 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 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] [DEHY01]**

### 5.3. Testing Requirements

5.3.1. N/A

### 5.4. Recordkeeping Requirements

5.4.1. Any and all malfunctions of the dehydrator still column flare that increase emissions shall be documented in writing. The following information must be documented for each malfunction:

- a) The equipment involved in the malfunction and the cause of the malfunction.
- b) The steps taken to correct the malfunction.
- c) The steps taken to minimize the emissions during the malfunction.
- d) The duration of the malfunction.
- e) The estimated increase in emissions during the malfunction.
- f) The steps taken to prevent a similar malfunction in the future.

These records shall be maintained on site for the duration of the operation. Certified copies shall be made available to the Director or a duly authorized representative of the Director upon request.

**[45CSR13, R13-2346B, A.14][DEHY01]**

5.4.2. For the purpose of determining compliance with production limitations set forth in Section 5.1.8 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). The permittee shall also maintain records of any maintenance performed on the equipment. These records shall be maintained on site for a period of five (5) years. Certified 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, R13-2346B, B.6; 45CSR34; 40 C.F.R. § 63.760(a)(1)(ii)][DEHY01]**

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

5.4.3. The permittee shall maintain records of the actual average benzene emissions determinations, on an annual basis, by using the model GRI-GLYCalc<sup>TM</sup>, Version 3.0 or higher, and the procedures presented in the associated GRI-GLYCalc Technical Reference Manual.

**[45CSR34; 40 C.F.R. §63.764(e)(1), 40 C.F.R. §63.774(d)(1)(ii) & 40 C.F.R. §63.772(b)(2)]**

### 5.5. Reporting Requirements

5.5.1. N/A

### 5.6. Compliance Plan

5.6.1. N/A

**6.0 Source-Specific Requirements [EN07; AUX04]**

**6.1. Limitations and Standards**

6.1.1. Emissions from the Caterpillar - Model 63512 clean burn natural gas fired compressor engine to the atmosphere shall be limited to the following:

Emission Unit	Control Device	Pollutant	Allowable Emissions (lb/hr)	Allowable Emissions (tpy)
Engine 07	None	Benzene	0.01	0.04
		Formaldehyde	0.18	0.79
		CO	2.86	12.51
		NO <sub>x</sub>	6.16	26.99
		PM	0.06	0.26
		SO <sub>2</sub>	0.01	0.02
		VOC	0.71	3.13

[45CSR13, R13-2175C, 4.1.1][EN07]

6.1.2. The auxiliary generator (AUX04) shall not exceed the specified Maximum Design Heat Input (MDHI), shall combust only the specified fuel, and shall utilize the specified control devices, as follows:

ID No.	Manufacturer	Model No.	MDHI (MMBtu/Hr) <sup>(1)</sup>	Fuel	Control Device(s)
002-04	Caterpillar	G3512	6.00	Natural Gas	None

(1) As calculated using a natural gas heat content of 1,020 Btu/ft<sup>3</sup>.

[45CSR13, R13-2346B, A.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, R13-2346B, A.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, R13-2346B, A.3][AUX04]

## 6.2. Monitoring Requirements

- 6.2.1. N/A

## 6.3. Testing Requirements

- 6.3.1. The permittee shall demonstrate compliance with the CO and NO<sub>x</sub> emissions limit by testing the engine exhaust using a portable analyzer on a quarterly basis. After two consecutive tests proving the engine emissions to be in compliance, the permittee may test the engine once every six months. If any test result shows the engine to be out of compliance, the permittee shall return to testing the engine every quarter until two consecutive tests show the engine emissions to be in compliance. Records of the test results and test dates shall be maintained on site for a period of at least five (5) years and shall be made available to any authorized representative of the Secretary, upon request.  
[45CSR§30-5.1.c.3.C.] [EN07]
- 6.3.2. At least once per calendar year the facility shall test the inlet gas stream to determine sulfur content, moisture content, volatile matter content and BTU content of the fuel.  
[45CSR13, R13-2175C, 4.2.1][EN07]

## 6.4. Recordkeeping Requirements

- 6.4.1. The permittee shall maintain certifiable records on a monthly basis of the amount of natural gas combusted by engine EN07.  
[45CSR13, R13-2175C, 4.3.4][EN07]
- 6.4.2. For the purpose of determining compliance with the maximum natural gas throughput limits for the auxiliary generator (AUX04) set forth in Section 6.1.4 of this permit, the permittee shall maintain a monthly certified record of the date(s) the generator was used, the amount of natural gas consumed, and the aggregated amount of natural gas consumed for the previous twelve (12) months. These records shall be maintained on site for a period of five (5) years. Certified 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, R13-2346B, B.5][AUX04]

## 6.5. Reporting Requirements

- 6.5.1. N/A

## 6.6. Compliance Plan

- 6.6.1. N/A

## Appendix A

The following reflect 40 C.F.R § 63.11(b) requirements as of June 6, 2006 and are subject to change.

### § 63.11 Control device requirements.

#### (b) Flares.

- (1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators using flares shall monitor these control devices.
- (2) Flares shall be steam-assisted, air-assisted, or non-assisted.
- (3) Flares shall be operated at all times when emissions may be vented to them.
- (4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.
- (5) Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
- (6) An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(i) of this section.
  - (i) (A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity  $V_{\max}$ , as determined by the following equation:

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

Where:

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

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

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

$X_{H_2}$ =The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in §63.14).

- (B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.
- (ii) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 M/scm (200 Btu/scf) or greater if the flares is non-assisted. The net heating value of the gas being

combusted in a flare shall be calculated using the following equation:

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

Where:

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

$K$ =Constant=

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

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

$C_i$ =Concentration of sample component  $i$  in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946-77 or 90 (Reapproved 1994) (incorporated by reference as specified in §63.14).

$H_i$ =Net heat of combustion of sample component  $i$ , kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in §63.14) if published values are not available or cannot be calculated.

$n$ =Number of sample components.

- (7) (i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.
- (ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).
- (iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity  $V_{\max}$ , as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity,  $V_{\max}$ , for flares complying with this paragraph shall be determined by the following equation:

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

Where:

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

28.8=Constant.

31.7=Constant.

$H_T$ =The net heating value as determined in paragraph (b)(6) of this section.

- (8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity  $V_{\max}$ . The maximum permitted velocity,  $V_{\max}$ , for air-assisted flares shall be determined by the following equation:

$$V_{\max} = 8.71 = 0.708(H_T)$$

Where:

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

8.71 = Constant.

0.708 = Constant.

$H_T$  = The net heating value as determined in paragraph (b)(6)(ii) of this section.

[59 FR 12430, Mar. 16, 1994, as amended at 63 FR 24444, May 4, 1998; 65 FR 62215, Oct. 17, 2000; 67 FR 16605, Apr. 5, 2002]