

# Fact Sheet



## For Final Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-04900052-2013**

Application Received: **April 23, 2012**

Plant Identification Number: **049-00052**

Permittee: **Equitrans, L. P.**

Facility Name: **Curtisville #50 Compressor Station**

Mailing Address: **100 Allegheny Center Mall, Pittsburgh, PA 15212-5331**

*Revised: N/A*

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Physical Location:	Mannington District, Marion County, West Virginia
UTM Coordinates:	549.65 km Easting • 4377.15 km Northing • Zone 17
Directions:	Interstate 79 North to the Downtown Fairmont Exit (Number 137). Bear to the right on off ramp and merge into left lane prior to stop light. Make left at stop light and stay on Route 310 for 3 stop lights. Make right turn onto bridge at 3rd light. Go up the hill at stop light after crossing bridge. Go thru 2nd stop light. Make a left at next stop light. Bear to the right hand lane for two stop lights and make a right onto Route 250 North. Stay on Route 250N to Mannington. In Mannington after passing Rite Aid (on right), make left hand turn onto Market street. At the Y at the end of Market Street, bear right onto Buffalo Road and continue on this road past Mannington Fairgrounds into the community of Logansport. After leaving Logansport make a left hand turn onto a new two lane bridge (1st left after Logansport) to Owen-Davey Creek Road. The first right turn leads to the station.

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### Facility Description

The Curtisville Compressor Station #50 is a natural gas transmission facility covered by NAICS 48210 and SIC 4922. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station consists of one (1) 1100-hp natural gas internal combustion reciprocating engine, one (1) 70-hp electric generator, one (1) 125-hp electric generator, one (1) heating boiler, one (1) TEG dehydrator, one (1) dehydrator boiler, one (1) dehydrator flare, and four (4) tanks of various sizes. The Curtisville #50 Compressor Station is used to compress storage gas.

## Emissions Summary

<b>Plantwide Emissions Summary [Tons per Year]</b>		
<b>Regulated Pollutants</b>	<b>Potential Emissions</b>	<b>2010 Actual Emissions</b>
Carbon Monoxide (CO)	40.76	5.1
Nitrogen Oxides (NO <sub>x</sub> )	142.16	39.2
Particulate Matter (PM <sub>10</sub> )	2.11	0.5
Total Particulate Matter (TSP)	2.11	0.5
Sulfur Dioxide (SO <sub>2</sub> )	0.03	<0.1
Volatile Organic Compounds (VOC)	5.62	1.5

*PM<sub>10</sub> is a component of TSP.*

<b>Hazardous Air Pollutants</b>	<b>Potential Emissions</b>	<b>2010 Actual Emissions</b>
Benzene	0.10	0.0
Ethylbenzene	0.08	0.0
Toluene	0.08	0.0
Xylenes	0.11	0.0
n-Hexane	0.05	0.0
Formaldehyde	2.34	0.7
Total HAPs	3.72	0.7

*Some of the above HAPs may be counted as PM or VOCs.*

### Title V Program Applicability Basis

This facility has the potential to emit 142.16 TPY of NO<sub>x</sub>. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Equitrans, L. P. is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

**Legal and Factual Basis for Permit Conditions**

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers
	45CSR6	Open burning prohibited
	45CSR10	SO <sub>x</sub> emissions.
	45CSR11	Standby plans for emergency episodes
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting
	45CSR30	Operating permit requirement
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 63, Subpart ZZZZ	RICE MACT
	40 C.F.R. Part 64	Compliance Assurance Monitoring
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors
	45 CSR17	To Prevent and Control Particulate Air Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

**Active Permits/Consent Orders**

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit <i>(if any)</i>
N/A	N/A	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

## Determinations and Justifications

### RICE MACT Requirements

With this permit renewal, it has been determined that the engines at this facility are subject to 40 C.F.R. 63, Subpart ZZZZ: National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

The two Kohler engines (G-100 and G-002) are non-emergency spark-ignition four-stroke rich burn engines rated at 70 and 125 HP. They fall into the Existing Stationary Engine under 500 HP Located at Area Sources of HAP category. The compliance date for these requirements is October 19, 2013. The following applicable requirements were added to this permit:

- The requirements in 40 C.F.R § 63.6603(a) and Table 2d to 40 C.F.R. 63, Subpart ZZZZ. (Added as Condition 4.1.1)
- The monitoring, installation, collection, operation, and maintenance requirements of 40 C.F.R. §§ 63.6625(e) and (h). (Added as Conditions 4.1.3 and 4.1.4).
- An oil analysis program according to the requirements of 40 C.F.R. § 63.6625(j). (Added as condition 4.1.6).
- The continuous compliance requirements of 40 C.F.R. §§ 63.6605 and 63.6640(a) and Table 6 of 40 C.F.R. Part 63, Subpart ZZZZ. (Added as Condition 4.1.2).
- The recordkeeping requirements of 40 C.F.R. (d) and (e). (Added as Condition 4.4.1).
- The reporting requirements of 40 C.F.R. §§63.6640(b) and (e). (Added as condition 4.5.2).

The Clark compressor engine (C-001) is a non-emergency spark-ignition two-stroke lean burn engine rated at 1100 HP. This engine falls into the Existing Stationary Engine over 500 HP Located at Area Sources of HAP category. The compliance date for these requirements is October 19, 2013. The following applicable requirements were added to this permit:

- The requirements in 40 C.F.R § 63.6603(a) and Table 2d to 40 C.F.R. 63, Subpart ZZZZ. (Added as Condition 4.1.1)
- The continuous compliance requirements of 40 C.F.R §§ 63.6605 and 63.6640(a) and Table 6 of 40 C.F.R. 63, Subpart ZZZZ. (Added as condition 4.1.2)
- The monitoring, installation, collection, operation, and maintenance requirements of 40 C.F.R. §§ 63.6625(e) and (h). (Added as Conditions 4.1.3 and 4.1.4).
- An oil analysis program according to the requirements of 40 C.F.R. § 63.6625(j). (Added as condition 4.1.6).
- The recordkeeping requirements of 40 C.F.R. §§ 63.6655 (d) and (e). (Added as condition 4.4.1)
- The reporting requirements of 40 C.F.R. §§ 63.6640(b) and (e). (Added as condition 4.5.2).

### Streamlining of Visible Emissions Requirements

45CSR§§6-4.3 and 4.4 limits the emissions of smoke from the flare to 20% opacity during normal operating conditions and 40% during start-up. These requirements were included as conditions 5.1.5 and 5.1.6 of R30-04900052-2007. With this permit renewal, these requirements are combined with condition 5.1.2.b, which previously allowed visible emissions for only 5 minutes during any given two hour period. The new language in condition 5.1.2.b sets the opacity limits from 45CSR§§6-4.3 and 4.4 during the 5-minute period where visible emissions are allowed.

### **SO<sub>2</sub> and H<sub>2</sub>S Emission Limits**

The following limits from 45CSR10 were added with this permit renewal:

- As specified in 45CSR§10-4.1, this facility cannot emit in-stack sulfur dioxide concentrations exceeding 2,000 parts per million by volume (Condition 5.1.5).
- As specified in 45CSR§10-5.1., this facility cannot combust gas containing hydrogen sulfide in a concentration greater than 50 grains per 100 cubic feet of gas except in the case of a person operating in compliance with an emission control and mitigation plan approved by the Director and USEPA (Condition 5.1.6).

### **Monitoring of Inlet Gas Sulfur**

According to the following calculation, compliance with FERC (Federal Energy Regulatory Commission) limit for total sulfur of 20 grains/100 cu.ft will assure compliance with the 45CSR10 limit of 2000 ppm SO<sub>2</sub> (Condition 5.1.5 of the permit):

$$(20\text{grains of S}/100 \text{ cu.ft of gas}) \times (1\text{lb}/7000 \text{ grains}) \times (1\text{lbmol S}/32 \text{ lb S}) \times (1\text{lbmol SO}_2 / 1\text{lbmol S}) \\ \times (385.1 \text{ cu.ft of gas}/1\text{lbmol gas}) \times 106 = 343 \text{ ppm of SO}_2.$$

Compliance with FERC limit for H<sub>2</sub>S of 0.25 grains/100 cu.ft will assure compliance with 45CSR10 limit of 50 grains/100 cu.ft (Condition 5.1.6 of the permit). Pipeline quality natural gas has very low H<sub>2</sub>S content and total sulfur includes H<sub>2</sub>S.

To demonstrate compliance with the SO<sub>2</sub> and H<sub>2</sub>S limits in Conditions 5.1.5 and 5.1.6, the permittee shall demonstrate compliance according to Condition 5.2.13.

### **Area Source of HAPs**

Several permit conditions were added to ensure compliance with the facility's claimed area source status. The new conditions are as follows:

- Condition 5.1.11 requires the necessary monitoring, testing, and recordkeeping to justify the area source status.
- Condition 5.2.5 was added to demonstrate compliance with the area source status, claimed within conditions 5.1.1 and 5.1.11. Using GRI-GLYCalc V3 or higher, the dehydration system will be accurately defined by monitoring and recording actual operating parameters associated with the dehydration system.
- According to condition 5.3.4, Equitrans, L.P. shall determine the contents of the wet natural gas stream by sampling in accordance with GPA method 2166 and analyzing according to extended GPA Method 2286 analysis as specified in the GRI-GLYCalc V3 Technical Reference User Manual and Handbook. This will be done within the third year of this permit term, prior to submitting the permit renewal application. Condition 5.5.6 requires submission of an emission summary.
- Condition 5.4.6. requires records of all monitoring data, wet gas sampling, and annual GLYCalc emission estimates. This condition replaces conditions 5.4.6 and 5.4.7 from R30-04900052-2007.

The following sections of the previous Title V permit were deleted because they related to the benzene exemption for 40 CFR 63, Subpart HHH which does not apply because the facility is an area source: 5.1.1(b), 5.1.10, and 5.4.8.

### **Revision to PM<sub>10</sub> Monitoring Requirements**

Conditions 5.2.3 and 5.2.4 are monitoring requirements to ensure compliance with PM emission limits. These conditions were revised to clarify that the PM limit these conditions refer to is the 45CSR§6-4.1 hourly PM<sub>10</sub> emission limit from condition 5.1.4.

### **Compliance Assurance Monitoring (CAM)**

The only control device at this facility is the Dehydration Flare (Dehy Flare). CAM was addressed in the previous renewal, and the CAM plan is summarized in section 5.7. However, there have been several additions with this permit renewal to clarify the CAM permit language. The following general CAM requirements were added:

- Commencement of Operations requirements as specified in 40 CFR §§ 64.7(a) and 64.6(d) (added as Condition 5.2.6).
- Proper Maintenance requirements as specified in 40 CFR § 64.7(b) (added as Condition 5.2.7).
- Continued Operation requirements as specified in 40 CFR § 64.7(c) (added as Condition 5.2.8).
- Documentation of Need for Improved Monitoring as specified in 40 CFR § 64.7(e) (added as Condition 5.2.9).
- QIP requirements as specified in 40 CFR § 64.8 (added as Condition 5.2.10).
- Identification of Excursions as specified in 40 CFR § 64.6(c)(2) (added as Condition 5.2.11).
- Response to Excursions or Exceedances as specified in 40 CFR § 64.7(d) (added as Condition 5.2.12).

Language was added to Condition 5.2.1 to ensure compliance with the CAM plan. These additions are as follows:

- All manufacturers' recommendations regarding periodic testing/checks for the proper installation and operation of the flare-monitoring will be followed.
- The flare-monitoring device shall be calibrated, maintained, and operated in accordance with manufacturer's specifications.

This additional language is referenced in the CAM Plan Summary (Section 5.7).

**Greenhouse Gas Tailoring Rule:** This is a renewal Title V Permit and there have been no changes that would have triggered a PSD permit. As such, there are no applicable GHG permitting requirements.

**Non-Applicability Determinations**

The following requirements have been determined not to be applicable to the subject facility due to the following:

45CSR10	Since the heating boiler and the dehydrator boiler are less than 10 MMBtu/hr, they are exempt from sulfur dioxide standards of 45CSR§§10-3, 6 through 8. The Curtisville facility does not refine or process gas streams, therefore, it is not subject to 45CSR§10-5. Also, since the Curtisville facility is not a manufacturing process, it is not subject to 45CSR§10-4.
45CSR21	Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds. Curtisville #50 station is not located in Cabell, Kanawha, Putnam, Wayne, or Wood counties that are affected by 45CSR21.
45CSR27	To Prevent and Control the Emissions of Toxic Air Pollutants. Natural gas is included as a petroleum product and contains less than 5% benzene by weight. 45CSR§27-2.4 exempts equipment used in the production and distribution of petroleum products providing that such equipment does not produce or contact materials containing more than 5% benzene by weight.
40 C.F.R. 60 Subpart GG	Standards of Performance for Stationary Gas Turbines. There are no turbines at the Curtisville #50 Compressor Station.
40 C.F.R. 60 Subpart K	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978. All tanks are below 40,000 gallons in capacity.
40 C.F.R. 60 Subpart Ka	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984. All tanks are below 40,000 gallons in capacity.
40 C.F.R. 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. All tanks storing volatile organic liquids are below 75 m <sup>3</sup> in capacity.
40 C.F.R. 60 Subpart KKK	Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Curtisville #50 Compressor Station is not engaged in the extraction of natural gas from field gas or in the fractionation of mixed natural gas liquids to natural gas products.
40 C.F.R. 60 Subpart LLL	Standards of Performance for Onshore Natural Gas Processing: SO <sub>2</sub> Emissions. There are no sweetening units at the Curtisville #50 Compressor Station.
40 C.F.R. 60 Subpart KKKK	Standards of Performance for Stationary Combustion Turbines. There are no turbines at the Curtisville #50 Compressor Station.
40 CFR 63 Subpart HH	National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities. Curtisville #50 Compressor Station is not subject to Subpart HH since this station is not a natural gas production facility.
40 CFR 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters. This facility is not a major source of HAPs, therefore this subpart does not apply according to 40 C.F.R. §63.7485.

**Request for Variances or Alternatives**

None.

**Insignificant Activities**

Insignificant emission unit(s) and activities are identified in the Title V application.

### **Comment Period**

Beginning Date: December 7, 2012  
Ending Date: January 7, 2013

All written comments should be addressed to the following individual and office:

Rex Compston, P.E.  
Title V Permit Writer  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

### **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

### **Point of Contact**

Rex Compston, P.E.  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 1209 • Fax: 304/926-0478

### **Response to Comments (Statement of Basis)**

The comments were received from Thomas Hadden by email dated December 28, 2012:

#### **1. 1.2 Emission Units**

The permit incorrectly identifies engine C-001 as a Clark Model HRA8 4SRB RICE. The engine is actually a 2SLB RICE (all models and serial numbers are correct). This correction to the existing permit was included in the renewal application. The Curtisville Station also operates two (2) natural gas-fired reciprocating engines used to power generators used for back-up electricity generation. These engines are both four-stroke rich burn (4SRB) engines rated at 70 and 125 hp respectively, and are correctly identified in the permit.

Per 40 CFR §63.6625(h), Equitrans will minimize the engines' time spent at idle and minimize the engines' startup to a period needed for appropriate and safe loading of the engines. Equitrans will also comply with the work practice standards in 40 CFR §63.6603 and maintain records to show these standards have been met. Work practice standards include changing the oil and filter, inspecting spark plugs and replacing as necessary and inspecting all hoses and belts and replacing as necessary at intervals specified in Table 2d of Subpart ZZZZ.

All of the emission standards, testing requirements, etc. that would apply to a 4SRB engine in this draft, are incorrect and should be revised to reflect a 2SLB engine. EQT has reviewed section 4.0 of the permit and made specific comments and recommendations.

Permit Writer's Response: I agree, and I will make the revisions. All requirements from 40 C.F.R. 63, Subpart ZZZZ for engine C-001 will be changed from those for a 4SRB engine to a 2SLB engine. Also, in the Determinations and Justifications section of the fact sheet, the RICE MACT requirements for C-001 will be revised from those for a 4SRB engine to a 2SLB engine.

## **2. 3.3.1 Stack Testing**

Paragraph d of condition 3.3.1 describes Reporting Requirements related to stack tests.

The requirements stipulate a summary of conditions which form the basis for the evaluation, and a statement of compliance status. The current wording would require signatures on both of these report elements. EQT suggests the following revision to simplify this requirement and avoid the need to double-sign the reports, without altering the requirement in any substantive way:

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; and the certification described in paragraph 3.5.1.~~ 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.

Condition 3.3.1.d requires the following:

- 1) the certification described in paragraph 3.5.1;
- 2) a statement of compliance status, signed by a responsible official; and
- 3) a summary of conditions which form the basis for the compliance status evaluation.

Permit Writer's Response: The certification described in paragraph 3.5.1 and the statement of compliance status may be submitted as one page in order to avoid the need to "double-sign the reports" as stated in your comment. If these two elements were combined onto one page, you would need to have a statement which reads "based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete" along with a separate statement of compliance status, but the signature by the responsible official could be for both statements on the same page. Since the concerns addressed by the commenter can be resolved without a change to Condition 3.3.1.d, this requirement will remain unchanged.

## **3. 3.5.6 Semi Annual Reports:**

The signature of the responsible official is redundant to requirement 3.5.1 and may be deleted. EQT requests that the line be deleted.

Permit Writer's Response: The sentence in condition 3.5.6 which states "All required reports must be certified by a responsible official consistent with 45CSR§30-4.4" comes directly from 45CSR§30-5.1.c.3.A which is cited as the underlying rule for this requirement. These conditions are required to be in the Title V permit per 45CSR§30-5.1. As such, the requested change will not be made.

## **4. 3.5.8.a.1. Deviations**

The "certification by a responsible official" is redundant to the requirement at Condition 3.5.1 and may be deleted. EQT requests that the line be deleted.

Permit Writer's Response: The sentence in condition 3.5.8.a.1 which states "A written report of such deviation which shall include the probable cause of such deviations, and any corrective actions or preventive measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation" comes directly from 45CSR§30-5.1.c.3.C.1 which is cited as the underlying rule for this requirement. These conditions are required to be in the Title V permit per 45CSR§30-5.1. As such, the requested change will not be made.

#### **5. 3.5.8.a.2. Deviations**

The report may be submitted by persons other than a responsible official. Although a deviation report must be certified, reference to submission by a responsible official should be deleted. EQT requests that the words "by a responsible official" be deleted.

Permit Writer's Response: The sentence in condition 3.5.8.a.2 which states "A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventive measures taken, shall be submitted by a responsible official within ten (10) days of the deviation" comes directly from 45CSR§30-5.1.c.3.C.2 which is cited as the underlying rule for this requirement. These conditions are required to be in the Title V permit per 45CSR§30-5.1. As such, the requested change will not be made.

#### **6. 4.1.1 Limitations and Standards**

Engine C-001 is a 2SLB engine. It will be necessary to add Table 2.d.6. to this section for engine C-001. Table 2.d.9. applies to engines G-100 and G-002. Table 2.d.10 does not apply to any of the engines and may be deleted. The following requirements apply to Engine C-001:

- 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
- c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.

Permit Writer's Response: Item 10 applies to a 4SRB engine rated over 500 hp. Engines G-100 and G-002 are 4SRB rated below 500 hp, and C-001 is a 2SLB rated over 500 hp. The requested revisions were made.

#### **7. 4.1.2 Limitations and Standards**

Table 1b does not apply to any engines (C-100) at this facility and this condition should be deleted.

The Work or Management practices section of Table 6.9 does apply.

The requirements to reduce CO or formaldehyde in Table 6.10 and 6.11, do not apply and should be deleted.

Permit Writer's Response: Permit condition 4.1.2 was removed; and items 10 and 11 of the Table in Condition 4.1.3 were removed as they do not apply to C-100, which is a 2SLB engine.

#### **8. 4.1.3 Table 6 of 40 CFR 63 Subpart ZZZZ**

40 CFR §63.6635 is not applicable to engine C-100, and this part of 4.1.3 should be deleted. The sections cited in this table are applicable and are not proposed to change.

Permit Writer's Response: Items 10 and 11 were removed from the table in addition to the sentence which states "The permittee must also demonstrate compliance for C-001 according to 40 CFR §63.6635." A 2SLB engine is not subject to 40 CFR §63.6635 or Items 10 and 11 of Table 6 to 40 CFR 63, Subpart ZZZZ.

### **9. 4.5.3.e.v. Emergency**

“The appropriate certification by a responsible official.” is redundant to requirement at Condition 3.5.1 and may be deleted.

Permit Writer’s Response: I believe you were referring to condition 4.5.1. 45CSR§30-5.1.c.3.D states that “every report submitted under this subsection shall be certified by a responsible official.” Although, this statement may be considered redundant with 3.5.1, it does not require action by the permittee other than what is already required by the underlying rule. No change will be made to Condition 4.5.1.e.v.

### **10. 4.3.1. Testing Requirements**

Engine C-100 is an existing 2SLB engine at an area source and Table 4 of 40 C.F.R. 63, Subpart ZZZZ: Requirements for Performance Tests does not apply to this facility and should be deleted.

Table 5 of 40 C.F.R. 63, Subpart ZZZZ: Initial Compliance with Emission Limitations and Operating Limitations does not apply to this facility and should be deleted.

The cited authorities for this condition §64.6612, “63.6630(a); and Table 4 and 5 to 40 CFR Part 63, Subpart ZZZZ are not applicable to the engines at Curtisville Station.

Permit Writer’s Response: This permit condition was removed. It was originally included because C-001 was believed to be a 4SRB engine rated above 500 hp.

### **11. 4.3.2 Initial Performance Test**

40 CFR § 63.6630 (b) is not applicable to engine C-100. This section should be deleted.

Permit Writer’s Response: This permit condition was removed. It was originally included because C-001 was believed to be a 4SRB engine rated above 500 hp.

### **12. 4.3.3 Subsequent Performance Testing**

40 CFR §63.6615 is not applicable and this section should be deleted.

Permit Writer’s Response: This permit condition was removed. It was originally included because C-001 was believed to be a 4SRB engine rated above 500 hp.

### **13. 4.3.4 Performance Testing**

40 C.F.R. §63.6620 is not applicable to this facility, and this section should be deleted.

Permit Writer’s Response: This permit condition was removed. It was originally included because C-001 was believed to be a 4SRB engine rated above 500 hp.

### **14. 4.4.1 Recordkeeping**

Many of the recordkeeping requirements cited in this section are not applicable to the engines at Curtisville. Under Subpart ZZZZ only 40 CFR §63.6655(d) and (e) are applicable. EQT suggests the following changes to conditions 4.4.1:

4.4.1. The permittee must comply with the following recordkeeping requirements:

~~a. The permittee must keep the following records:~~

~~1. A copy of each notification and report that the permittee submitted to comply with 40 C.F.R. Part 63, Subpart ZZZZ, including all documentation supporting any Initial Notification or Notification of~~

~~Compliance Status that the permittee submitted, according to the requirement in 40 C.F.R. §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 40 C.F.R. §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 40 C.F.R. §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.~~

~~b. For each CEMS or CPMS, the permittee must keep the following records:~~

~~1. Records described in 40 C.F.R. §§63.10(b)(2)(vi) through (xi).~~

~~2. Previous ( i.e., superseded) versions of the performance evaluation plan as required in 40 C.F.R. §63.8(d)(3).~~

~~3. Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in 40 C.F.R. §63.8(f)(6)(i), if applicable.~~

c. The permittee must keep the records required in Table 6 of 40 C.F.R. Part 63, Subpart ZZZZ to show continuous compliance with each applicable emission or operating limitation.

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

(Note: 4.4.1.d does not apply to C-001)

**[40 C.F.R. §§63.6655(a), (b), (d), and (e)]**

Permit Writer's Response: Engines C-001, G-100, and G-002 are not required to install air pollution control equipment, CEMS, or a CPMS. They are only subject to work practice standards. Therefore, the requested revisions were made.

#### **15. 4.5.2 Notification of Compliance Status**

Neither §63.6645 nor §63.6630(c) apply to the facility and as a result there is not an initial compliance demonstration, or notice to be submitted. This section should be deleted.

Permit Writer's Response: This permit condition was removed. It was originally included because C-001 was believed to be a 4SRB engine rated above 500 hp.

#### **16. 4.5.3 Reporting Requirements**

This section is based on reporting requirements from §63.6650(a), (b), (c), (d), (e) and (f) for engine C-100. Since engine C-100 is actually a 2SLB engine at an area source, these requirements do not apply except for 63.6650(f). EQT request all of this condition except paragraph (f) be deleted.

Permit Writer's Response: This entire permit condition was removed.

#### 17. 4.5.4 Notification Requirements

This section is based on reporting requirements from §63.6645 for engine C-100. Since engine C-100 is actually a 2SLB engine at an area source, these requirements do not apply except for 63.6645(a). EQT request all of this condition except paragraph (a) be deleted.

Permit Writer's Response: This permit condition was removed. 40 CFR §63.6645(a) is already included as Condition 4.1.6.

#### 18. 5.2.11 Excursions

EQT acknowledges the need to define what constitutes an excursion under a monitoring plan. We request the following minor change to clarify that an excursion only occurs during active operations of the dehy unit that could send flash gas to the flare:

Pilot flame absence while the dehy reboiler unit is in operation, indicates an excursion.

Permit Writer's Response: The requested revision was made to Condition 5.2.11. The permit writer agrees to the clarification of when the pilot flame is necessary and the change will be made in the permit. In addition, Condition 5.4.1 was modified to include the phrase, "Except for periods of shutdown", in order to maintain consistency with the requested change to Condition 5.2.11.

#### 19. 5.2.13 Monitoring Inlet Gas Sulfur

Natural gas from this formation is extremely low in sulfur and cannot reasonably be expected to approach 2000 ppm. EQT considers the recurring sampling, analysis, and recordkeeping burden of this requirement excessive given the quality of gas that is required to be supplied to the pipeline and knowledge that the potential range of sulfur could never approach this concentration. As an alternative EQT requests that the condition allow records to be retained that are adequate to demonstrate gas quality meets this standard.

Permit Writer's Response: As a result of EQT's comment, the following changes have been made to the Title V permit and Fact Sheet.

Revised Permit Condition:

5.2.13. To show compliance with Conditions 5.1.5 and 5.1.6, the permittee may elect not to monitor the total sulfur and H<sub>2</sub>S content of the fuel combusted, if the gaseous fuel is demonstrated to meet the definition of natural gas in 40 C.F.R. § 60.331(u). The owner or operator shall use one of the following sources of information to make the required demonstration:

The gas quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the gaseous fuel, specifying that the maximum total sulfur content of the fuel is 20.0 grains/100 scf or less; or

Representative fuel sampling data which show that the sulfur content of the gaseous fuel does not exceed 20 grains/100 scf. At a minimum, representative fuel data specified in either section 2.3.1.4 or 2.3.2.4 of appendix D to 40 C.F.R.75 is required.

**[45CSR§30-5.1.c.]**

Fact Sheet Explanation

According to the following calculation, compliance with FERC (Federal Energy Regulatory Commission) limit for total sulfur of 20 grains/100 cu.ft will assure compliance with the 45CSR10 limit of 2000 ppm SO<sub>2</sub> (Condition 5.1.5 of the permit):

$(20\text{grains of S}/100 \text{ cu.ft of gas}) \times (1\text{lb}/7000 \text{ grains}) \times (1\text{lbmol S}/32 \text{ lb S}) \times (1\text{lbmol SO}_2/1\text{lbmol S}) \times (385.1 \text{ cu.ft of gas}/1\text{lbmol gas}) \times 10^6 = 343 \text{ ppm of SO}_2$ .

Compliance with FERC limit for H<sub>2</sub>S of 0.25 grains/100 cu.ft will assure compliance with 45CSR10 limit of 50 grains/100 cu.ft (Condition 5.1.6 of the permit). Pipeline quality natural gas has very low H<sub>2</sub>S content and total sulfur includes H<sub>2</sub>S.

#### **20. 5.2.14 Monitoring Inlet Gas H<sub>2</sub>S**

Natural gas from this formation is extremely low in sulfur and cannot reasonably be expected to approach levels of H<sub>2</sub>S that could cause exceedance of condition 5.1.6 at 50 grains/100 scf. EQT considers the sampling, analysis, and recordkeeping burden of this requirement excessive given the quality of gas that is required to be supplied to the pipeline and knowledge that the potential range of sulfur could never approach this concentration. As an alternative EQT requests that the condition allow records to be retained that are adequate to demonstrate gas quality meets this standard.

Permit Writer's Response: See Item #19

#### **21. 5.2.3 Visible Emissions Monitoring**

The flare is designed, and effectively operates to produce no visible emissions at any time. EQT appreciates the use of Method 22 as an alternate to Method 9 to demonstrate visible emissions compliance, but objects to the use of a 2-hour observation period. The design and operating standard of 45 CSR §6-4-3 specify visible emissions shall not exceed 5-minutes in any 2-hour period.

Since this condition has been in the permit, visible emissions have not been observed to occur as a result of flare operations at this facility. We therefore request to sample a shorter observation period than the 2-hour period of the standard.

We propose as an alternative test, that the observation period should be at least 24 minutes. This test shall demonstrate no visible emissions are observed during the 24 minute period using 40 CFR Part 60 Appendix A, Method 22. Provided no visible emissions are observed during the 24 minute test, the flare shall be demonstrated as compliant with the standard. If any visible emissions, other than uncombined water vapor are observed during the 18-minute observation period, a full Method 22 analysis will be conducted using a 2-hour observation period, and the visible emission time will be separately accumulated using a stop-watch.

We believe this alternative approach represents an effective alternate monitoring/testing approach to verify the performance of the flare, without excessive use of personnel time to observe a source that never produces visible emissions. The alternative test is more stringent in that it encompasses a period during which up to one minute of visible emissions would be allowed, and the standard would be met; but the test fails if even an instantaneous visible emission is observed.

We would appreciate the opportunity to discuss further how we may demonstrate compliance with general requirement rules, by testing a sample of excessively long compliance periods such as this, using a shorter observation period.

Permit Writer's Response: The 2 hour observation period is used because according to the definition of observation period in 40 C.F.R 60 Appendix A, Method 22, Section 3.4, the accumulated time period during which observations are conducted shall not be less than the period specified in the applicable regulation. In this case the applicable requirement is 5.1.2.b which specifies 2 consecutive hours. Therefore the 2 hour time period must remain unchanged.

#### **22. 5.3.4 GRI-GLYCalc**

The permit contains changing reference to GRI-GLYCalc V3 or V4. The referenced version should be made consistent throughout the permit.

Permit Writer's Response: The requested revision was made to Condition 5.3.4 as well as Condition 5.2.5.

### **23. 5.5.6 Reporting Requirements:**

The signature of the responsible official is redundant to the requirement at Condition 3.5.1.

Permit Writer's Response: 45CSR§30-5.1.c.3.D states that "every report submitted under this subsection shall be certified by a responsible official." The authority cited under condition 5.5.6 is 45CSR§30-5.1.c which requires certification by a responsible official. Although, this statement may be considered redundant with 3.5.1, it does not require action by the permittee other than what is already required by the underlying rule. No change will be made to Condition 5.5.6.

#### **Additional Changes:**

As a result of the comments from EQT, the following additional changes were made:

1. References to C-001 were added to the citations of Conditions 4.1.3 and 4.1.6. 40 C.F.R. §§63.6625(e) and (j), which were referenced by these conditions, also apply to 2SLB engines.
2. Condition 4.5.3 was removed. This condition does not apply to 2SLB engines.