

Fact Sheet



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

Permit Number: **R30-08300017-2012**
Application Received: **November 2, 2011**
Plant Identification Number: **03-054-083-00017**
Permittee: **Columbia Gas Transmission, LLC**
Facility Name: **Glady Compressor Station**
Mailing Address: **1700 MacCorkle Avenue SE, Charleston, WV 25314**

Revised: N/A

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|--------------------|--|
| Physical Location: | Glady, Randolph County, West Virginia |
| UTM Coordinates: | 615.52 km Easting • 4,293.19 km Northing • Zone 17 |
| Directions: | From US Route 33 East, turn right on Secondary Route 27 at Alpena. Proceed approximately 10 miles to Glady, turn left on Route 22 and travel approximately 1 mile to the station located on the left side of road. |

Facility Description

The Glady Station is a natural gas transmission facility covered by Standard Industrial Classification (SIC) 4922. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station consists of three (3) 1320-hp natural gas fired reciprocating engines, one (1) triethylene glycol (TEG) dehydrator with a NATCO SHV 5.74 MMBtu/hr flare, two (2) 1.40 MMBtu/hr glycol regenerators, one (1) 0.15 MMBtu/hr glycol reclaiming, two (2) 15.0 MMBtu/hr indirect-fired line heaters and numerous storage tanks of various sizes (two of which are 30,000 gallon capacity). Additional on-site support equipment includes two (2) electrical generators rated at 336-hp and 608-hp and one (1) 1.512 MMBTU/hr heating system boiler.

Emissions Summary

| Plantwide Emissions Summary [Tons per Year] | | |
|---|---------------------|------------------------------------|
| Regulated Pollutants | Potential Emissions | 2011 Actual Emissions ¹ |
| Carbon Monoxide (CO) | 152.15 | 124.87 |
| Nitrogen Oxides (NO _x) | 1,108.29 | 401.77 |
| Particulate Matter (PM ₁₀) | 1.07 | Unavailable |
| Total Particulate Matter (TSP) | 1.07 | 0.45 |
| Sulfur Dioxide (SO ₂) | 1.72 | 0.11 |
| Volatile Organic Compounds (VOC) | 39.51 | 12.97 ² |

PM₁₀ is a component of TSP.

| Hazardous Air Pollutants | Potential Emissions | 2011 Actual Emissions |
|--------------------------|---------------------|-----------------------|
| Acetaldehyde | 1.50 | Unavailable |
| Benzene | 2.17 | 1.38 |
| Ethylbenzene | 0.69 | 0.45 |
| Ethylene Glycol | <0.01 | 0.00005 |
| Formaldehyde | 9.26 | 2.94 |
| Hexane | 0.28 | 0.05 |
| Methanol | 0.11 | 0.10 |
| Toluene | 2.29 | 1.47 |
| Xylene (Mixed Isomers) | 1.04 | 0.67 |
| Total HAPs | 17.34 | 7.08 |

1. Actual emissions transcribed from the 2012 Certified Emissions Statement Invoice, and represent emissions from January 1, 2011 through December 31, 2011.
2. Actual VOC emissions include 7.08 tons of VOC-HAP.

Title V Program Applicability Basis

This facility has the potential to emit 152.15 tpy of CO, and 1,108.29 tpy of nitrogen oxides. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Columbia Gas Transmission's Gladly Compressor Station 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 | PM emissions from Indirect Heat Exchangers |
| | 45CSR6 | Open burning prohibited. |
| | 45CSR10 | SO ₂ emissions from Indirect Heat Exchangers |
| | 45CSR11 | Standby plans for emergency episodes. |
| | 45CSR13 | Permits for construction/modification |
| | WV Code § 22-5-4 (a) (14) | The Secretary can request any pertinent information such as annual emission inventory reporting. |
| | 45CSR16 | NSPS requirements |
| | 45CSR30 | Operating permit requirement. |
| | 40 C.F.R. Part 60, Subpart Dc | Steam generating units NSPS |
| | 40 C.F.R. Part 60, Subpart Kb | Tank NSPS after July 23, 1984 |
| | 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 82, Subpart F | Ozone depleting substances |
| State Only: | 45CSR4 | No objectionable odors. |
| | 45CSR17 | Particulate Fugitive |

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 (if any) |
|--------------------------------|------------------|---|
| R13-2218C | 03/11/2003 | |

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

This facility was previously registered under General Permit R30-NGGP-2007 for Natural Gas Compressor Facilities. The Division of Air Quality did not renew the general permit for natural gas compressor facilities, therefore this facility's renewal will be issued as a source-specific permit. The source-specific permit includes various requirements which are potentially applicable to natural gas compressor stations. The applicable requirements column in the Section 1.0 Emission Units Table of the permit indicates which of the requirements in Sections 2.0 through 24.0 are applicable to each emissions unit.

- I. **45CSR2 – To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers.** HTR3 and HTR4 are both subject to requirements in Section 5.0 of the permit, of which 5.1.3. sets the PM limit for each at $(15 \text{ mmBtu/hr}) \times (0.09) = 1.35 \text{ lb/hr}$. However, both units are also subject to the underlying permit limit, which for each is 0.21 lb/hr. Therefore, a streamlining note has been added in the applicable requirements column for HTR3 and HTR4.
- II. **40 C.F.R. 60 Subpart Dc- Standards of Performance for Steam Generating Units** – The line heaters HTR3 and HTR4 are indirect-fired units, each rated 15 mmBtu/hr heat input. Typically, line heaters are used to either control the temperature and condensation of the transmitted gas stream, or to control the temperature and condensation of fuel gas used to power equipment at the station (e.g., reboiler, heating system, line heaters, and engines). The line heaters are indirect-fired, and as such use a heat transfer medium to transfer heat to the gas lines which they serve. The line heaters are not primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst. As such, the line heaters HTR3 and HTR4 do not meet the definition of a *Process heater* in 40 C.F.R. §60.41c.

40 C.F.R. §60.40c(a) states “Except as provided in paragraphs (d), (e), (f), and (g) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).” 40 C.F.R. §60.41c defines a *Steam generating unit* as “a device that combusts any fuel and produces steam or heats water or heats any heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.” The line heaters HTR3 and HTR4 meet the definition of a *Steam generating unit* and are not excluded since they are not process heaters. The line heaters were installed after June 9, 1989 and meet the heat input criteria of §60.40c(a); therefore, HTR3 and HTR4 are subject to the applicable requirements of 40 C.F.R. 63 Subpart Dc. Since the line heaters combust only natural gas, the only applicable requirements in this regulation are:

§60.48c(g)(2) - Record and maintain records of the amount of each fuel combusted during each calendar month.

§60.48c(i) – Maintain records for 2 years.

The boilers BLR1, BLR2, BLR4, and BLR5 are less than 10 MMBtu/hr; hence, Subpart Dc is not applicable to these sources.

- III. **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 (except Tank A21 and Tank A25) at Gladly station are below 75 m³ in capacity. Since the vessels do not meet applicability criterion at §60.110b(a), this regulation does not apply to these tanks.

Renewal Application Attachment D cites 40 C.F.R §§ 60.110b(b) and 60.116b as being applicable to Tanks A21 and A25. The application states that each tank is 30,000 gallons in capacity, which is approx. 113.6 cubic meters, and stores liquid less than 15 kPa true vapor pressure. 40 C.F.R. §60.110b(b) states “This subpart does not apply to storage vessels with a capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure less than 3.5 kilopascals (kPa) or with a capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure less than 15.0 kPa.” Even though both tanks A21 and A25 are between 75m³ and 151 m³, and both store liquid with a maximum true vapor pressure less than 15.0 kPa, the permittee is required to keep records for the life of each vessel showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel pursuant to applicable requirement §§60.116b(a) and (b).

IV. **40 C.F.R. 63 Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.** The facility is an area source (i.e., non-major) of HAPs. Pertinent details concerning each engine are given below. In accordance with 45CSR§34-4.1.d., the State rule 45CSR34 is not cited with the applicable MACT requirements since the facility is an area source of HAPs.

- a. **Engines 16801, 16802, 16803.** Each engine drives an integral compressor potentially at 8,760 hours per year; therefore, they are considered non-emergency engines. The units are spark ignition (SI) 4-stroke lean burn (4SLB) RICE each rated at 1,320 hp and all constructed in 1965. None of the RICE are equipped with an air pollution control device at the present time. However, the permittee intends to utilize oxidation catalysts for the engines. Thus, requirements pertaining to oxidation catalyst will be incorporated into the permit where applicable. Each engine is an *Existing stationary RICE* since it meets the criteria of §63.6590(a)(1)(iii). The engines do not meet any of the criteria for limited requirements or NSPS requirements in §§63.6590(b) and (c), respectively. Finally, the engines operate more than 24 hours per year, which is a critical point for correct application of the regulation to these RICE. Note that the permittee has petitioned the Administrator for a compliance extension for these engines.

| Section | Condition | Discussion |
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| Compliance Date | | |
| §63.6595(a)(1) | (1) | The engines are considered “an existing stationary SI RICE located at an area source of HAP emissions.” Therefore, the compliance date is October 19, 2013. Since the compliance date is future at the time of this renewal there is a note at the end of this requirement specifying that all subsequent Subpart ZZZZ requirements are subject to this compliance date. |
| Emission and Operating Limitations | | |
| §63.6600 | None | This section is not applicable since the engines are not located at a major source of HAP. |
| §63.6601 | None | This section is not applicable since the engines are not located at a major source of HAP. |
| §63.6602 | None | This section is not applicable since the engines are not located at a major source of HAP. |
| §63.6603(a) | (2) and (3) | This section is applicable since the engine is located at an area source. In particular, Item #8 in Table 2d to Subpart ZZZZ is applicable. This requirement limits concentration of CO in the exhaust to 47 ppmvd at 15 percent oxygen, or to reduce CO emissions by 93 percent or more (condition (2)). Determination of |

| Section | Condition | Discussion |
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| | | these limits allows for proper application of Table 2b requirements (condition (3)). Since oxidation catalysts will be utilized, the requirements in Item #1 of Table 2b will be applicable. |
| §63.6603(b) | None | This section is not applicable since the engines are not CI RICE in Alaska. |
| §63.6604 | None | This section is not applicable since the engines are spark ignition. |
| General Compliance Requirements | | |
| §63.6605(a) | (4) | This section is applicable since the engines are subject to emission limitations and operating limitations of Subpart ZZZZ. |
| §63.6605(b) | (5) | This general duty requirement is included in the permit. |
| Testing and Initial Compliance Requirements | | |
| §63.6610 | None | This section is not applicable since the engine is not located at a major source of HAP. |
| §63.6611 | None | This section is not applicable since the engine is existing and is not located at a major source of HAP. |
| §63.6612(a), Table 4 requirements | (6) | §63.6612(a) is applicable since the engine is an existing stationary RICE at an area source. Table 4, Item #1 will be applicable for the use of a control device. This requirement to reduce CO emissions will be written in the permit. If, however, the permittee elects to limit the concentration of CO in the exhaust, Item #3 is incorporated by reference at the end of the condition. |
| §63.6612(a), Table 5 requirements | (7) | The applicable requirement in Table 5 is either Item #1 or #2, which are based on reducing CO or limiting CO concentration in the exhaust using an oxidation catalyst (permittee's option per §63.6603(a)). Wherever these requirements are specified in the regulation, and an oxidation catalyst will be utilized to meet the standards, there is an accompanying requirement to employ a CPMS. Therefore, the requirement from Items #1 and #2 are both written in the permit. |
| §63.6612(b) | None | This section exempts a facility from performance testing if past testing meets certain criteria specified in the section. Since control devices will be added in the future to comply with Subpart ZZZZ, and performance testing of the engines with the control devices has not been performed, then it is impossible for any past testing to meet this exemption. No permit condition is required for this section of the regulation. |
| §63.6615 | (8) | This section is applicable since the engines are subject to emission limitations. In Table 3, Item #4 is applicable, and has been written as a permit condition. |
| §63.6620(a) | (6) and (8) | This section requires testing in Tables 3 and 4. Since these testing requirements have been determined |

| Section | Condition | Discussion |
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| | | above for §63.6615 (Table 3, Item #4) and §63.6612(a) (Table 4, Item #1), this section will be cited with conditions (6) and (8). |
| §63.6620(b) | (6) | This requirement pertains to testing in accordance with requirements in Table 4 to Subpart ZZZZ. Therefore, this section is cited with condition (6) which already specifies the applicable Table 4 requirements. |
| §63.6620(c) | None | This section is reserved. |
| §63.6620(d) | (9) | This applicable requirement is written as a condition. |
| §63.6620(e) | (10) | The applicable requirement is written as a condition. |
| §63.6620(f) | (11) | The applicable requirement is written as a condition. Non-applicable language regarding formaldehyde concentration is excluded. |
| §63.6620(g) | (12) | The applicable requirement is written as a condition, but will IBR the specifics in (g)(1) through (g)(5). |
| §63.6620(h) | (13) | The applicable requirement is written as a condition, but will IBR the specifics in (h)(1) through (h)(7). |
| §63.6620(i) | (14) | This applicable requirement is written as a condition. |
| §63.6625(a) | (15) | This applicable section is written as a condition, but will IBR the specifics in (a)(1) through (a)(4). |
| §63.6625(b) | (16) | This applicable section is written as a condition. Since a CPMS will be utilized, the specifics in §§63.6625 (b)(1) through (b)(6) are written in the condition (as opposed to IBR). Since the source is not complying with the emission limitations and operating limitations on March 9, 2011, the non-applicable language of this section is not included in in the condition. |
| §63.6625(c) | None | This section is not applicable since the engines do not fire landfill gas or digester gas. |
| §63.6625(d) | None | This section is not applicable since the engine is greater than 500-hp and also is located at an area source. |
| §63.6625(e) | None | The engines do not meet all of the criteria for each of the types of engines specified in §§63.6625(e)(1) through (10); therefore, this section is not applicable. |
| §63.6625(f) | None | The engines are not emergency type; therefore, this section does not apply. |
| §63.6625(g) | None | This section is not applicable since the engines are SI RICE. |
| §63.6625(h) | (17) | This section is applicable to the engine since they are existing. Non-applicable language regarding new or reconstructed engines is removed, as well as the table numbers except for Table 2d. |
| §63.6625(i) | None | This section is not applicable since the engines are not CI RICE. |

| Section | Condition | Discussion |
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| §63.6625(j) | None | The engines are not subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to Subpart ZZZZ or in items 5, 6, 7, 9, or 11 of Table 2d to Subpart ZZZZ. Therefore, this section does not apply. |
| §§63.6630(a) through (c) | (7), (3), (24) | To avoid redundancy, §63.6630(a) is cited with permit condition (7). Similarly, §63.6630(b) is cited with permit condition (3). The NOCS requirement of §63.6630(c) is cited with condition (24). |
| Continuous Compliance Demonstration | | |
| §§63.6635(a) through (c) | (18) | §63.6635(a) through (c) are combined into one permit condition. |
| §63.6640(a) | (19) | Since the engines are subject to requirements of Table 2d (Item #8) and Table 2b (Item #1) of Subpart ZZZZ, this section requires compliance with applicable methods in Table 6 to Subpart ZZZZ. In Table 6, the requirements of Item #10 are applicable to the engines, and are therefore written as a permit condition. Non-applicable language (e.g., 4SRB, formaldehyde, etc.) is excluded. |
| §63.6640(b) | (20) | This applicable requirement requires the permittee to report deviations from the applicable requirements of Table 2d and Table 2b to Subpart ZZZZ. Non-applicable language in the regulation has not been included in this permit condition. |
| §63.6640(c) | None | This section is reserved. |
| §63.6640(d) | None | This section is not applicable since the engine is existing. |
| §63.6640(e) | (21) | Since the engines do not meet any of the exemption criteria in this section, it is applicable and a condition is written which will IBR Table 8 to Subpart ZZZZ. |
| §63.6640(f) | None | This section does not apply since the engines are non-emergency RICE. |
| Notifications | | |
| §§63.6645(a) and (a)(2) | (22) | Since the engines meet the criterion of §63.6645(a)(2) and do not meet the exemptions in §63.6645(a)(5), the notifications under §63.6645(a) are applicable. |
| §63.6645(b) | None | This section is not applicable since the engine is not located at a major source of HAP. |
| §63.6645(c) | None | This section is not applicable since the engine is existing and is not located at a major source of HAP. |
| §63.6645(d) | None | This section is not applicable since the engines are greater than 500 HP and are also not located at a major source of HAP. |
| §63.6645(e) | None | This section is not applicable since the engine is existing. |

| Section | Condition | Discussion |
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| §63.6645(f) | None | This section is not applicable since the engines do not meet the criteria of §63.6590(b). |
| §63.6645(g) | (23) | The permittee is required to conduct a performance test; therefore, this section is applicable. |
| §63.6645(h) | (24) | The permittee is required to conduct a performance test; therefore, this section is applicable. |
| Reporting | | |
| §63.6650(a) | (25) | This section is applicable to the engines since they meet the criteria in Item #1 of Table 7 to Subpart <i>ZZZZ</i> . |
| §63.6650(b) | (26) | Since the engines are not subject to limited requirements, the semiannual reporting schedule is applicable. The requirements of §63.6650(b)(5) are written in the permit to refer to the appropriate semiannual monitoring report condition 3.5.6. |
| §63.6650(c) | (27) | This section is applicable and is written in the permit. |
| §63.6650(d) | (28) | This section is applicable and is written in the permit. |
| §63.6650(e) | (29) | This section is applicable and is written in the permit. |
| §63.6650(f) | (30) | This section is an applicable requirement to report deviations (as defined in 40 C.F.R. §63.6675). This requirement is modified for coherence in the renewal permit. |
| §63.6650(g) | None | This section is not applicable since the engine is existing and does not fire landfill gas or digester gas. |
| Recordkeeping | | |
| §63.6655(a) | (31) | This section is applicable and is written in the permit. |
| §63.6655(b) | (32) | This section is applicable and is written in the permit. |
| §63.6655(c) | None | This section is not applicable since the engine is existing and does not fire landfill gas or digester gas. |
| §63.6655(d) | (33) | This section is the recordkeeping requirement that corresponds to the continuous compliance demonstration specified by §63.6640(a). Rather than writing the same requirements again from Table 6, this requirement will reference permit condition (19). |
| §63.6655(e) | None | This section is not applicable since the engines meet none of the criteria in §63.6655(e)(1) through (3). That is, the engines are not located at a major source of HAP; are not emergency type; and are not subject to management practices as shown in Table 2d to Subpart <i>ZZZZ</i> . |
| §63.6655(f) | None | This section is not applicable since the engines meet none of the criteria in §63.6655(f)(1) and (2). That is, the engines are not emergency type. |
| §63.6660(a), (b), and (c) | (34) | These applicable requirements have been written in the permit. |
| General Provisions | | |
| §63.6665 | (35) | The engine does not meet any of the exemption criteria of this section. A condition has been written that will IBR the applicable requirements of Table 8 to Subpart <i>ZZZZ</i> . |

- b. **Engine 168G1.** This unit is a spark ignition (SI) 4-stroke rich burn (4SRB) non-emergency¹ engine rated at 336 hp, constructed in 1992. The engine is an *Existing stationary RICE* since it meets the criteria of §63.6590(a)(1)(iii). The engine does not meet any of the criteria for limited requirements or NSPS requirements in §§63.6590(b) and (c), respectively.

| Section | Condition | Discussion |
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| Compliance Date | | |
| §63.6595(a)(1) | (1) | The engine is considered “an existing stationary SI RICE located at an area source of HAP emissions.” Therefore, the compliance date is October 19, 2013. Since the compliance date is future at the time of this renewal there is a note at the end of this requirement specifying that all subsequent Subpart ZZZZ requirements are subject to this compliance date. |
| Emission and Operating Limitations | | |
| §63.6600 | None | This section is not applicable since the engine is rated less than 500 brake HP (bhp). |
| §63.6601 | None | This section is not applicable since the engine is not 4SLB and is not located at a major source of HAP. |
| §63.6602 | None | This section is not applicable since the engine is not located at a major source of HAP. |
| §63.6603(a) | (2) | This section is applicable since the engine is located at an area source. In particular, only Item #9 in Table 2d to Subpart ZZZZ is applicable. No requirement in Tables 1b or 2b of Subpart ZZZZ are applicable. Note: The applicable requirements of Table 2d, Item #9, are considered “Work Practice Requirements”. These are not the same as emission limitations and operating limitations described elsewhere in the regulation. Emission limitations are items such as reduction of carbon monoxide emissions and limiting the concentration of formaldehyde in the exhaust stream (cf. non-applicable Table 2a of the subpart). Operating limitations are items such as maintaining pressure drop across a catalyst, and maintaining exhaust gas temperature in a specified range (cf. non-applicable Table 2b of the subpart). However, work practices pertain to frequencies of oil changes, inspections of spark plugs and belts and hoses. The notes following Table 2d in the regulation affirm that these requirements are management practice requirements. Based upon these distinctions, all associated MRR requirements in the regulation that pertain to emission limits and operating limits will not be included in the permit since they are not applicable to the engine. |
| §63.6603(b) | None | This section is not applicable since the engine is not a CI RICE in Alaska. |

¹ While the renewal application states that 168G1 is an “Emergency SI” engine for determining applicable 40 C.F.R. 63 Subpart ZZZZ requirements, the permittee stated in a 9/10/2012 email that engine 168G1 is a non-emergency electric generator. The remote location of Gladly Station requires the permittee to generate its own electricity because there is no electric utility service at the station.

| Section | Condition | Discussion |
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| §63.6604 | None | This section is not applicable since the engine is spark ignition. |
| General Compliance Requirements | | |
| §63.6605(a) | None | This section is not applicable since the engine is not subject to emission limitations and operating limitations of Subpart ZZZZ. |
| §63.6605(b) | (6) | This general duty requirement is included in the permit. |
| Testing and Initial Compliance Requirements | | |
| §63.6610 | None | This section is not applicable since the engine is rated less than 500 brake HP. |
| §63.6611 | None | This section is not applicable since the engine is existing. |
| §63.6612 | None | <p>§63.6612(a) is applicable since the engine is an existing stationary RICE at an area source. However, no specific requirements in §63.6612 apply to the engine, as is demonstrated below.</p> <p>§63.6612(a) refers to applicable requirements in Table 4 and 5 to Subpart ZZZZ. Item #2 in Table 4 is applicable to 4SRB stationary RICE that are complying with the requirement to reduce formaldehyde emissions. Similarly, Item #3 in Table 4 applies to any stationary RICE complying with the requirement to limit CO or formaldehyde in the exhaust stream. However, the engine is not subject to any requirement to reduce CO or formaldehyde emissions (as discussed above under Emission and Operating Limitations); therefore, testing under §63.6612(a) does not apply.</p> <p>§63.6612(b) applies in the case when testing has already been performed. This requirement is not applicable to the engine.</p> |
| §63.6615 | None | This section is not applicable since the engine is not subject to emission limitations and operating limitations under Subpart ZZZZ. |
| §§63.6620(a) through (i) | None | This section is not applicable since the engine is not subject to emission limitations and operating limitations under Subpart ZZZZ. |
| §63.6625(a) | None | This section is not applicable since there is no CEMS required for the engine. |
| §63.6625(b) | None | This section is not applicable since there is no CPMS required for the engine. |
| §63.6625(c) | None | This section is not applicable since the engine does not fire landfill gas or digester gas. |
| §63.6625(d) | None | This section is not applicable since the engine is an existing 4SRB RICE at an area source. |
| §63.6625(e) | (3) | The engine meets the criteria of §63.6625(e)(8), and is therefore required to comply with this section. The language of both §63.6625(e) and §63.6625(e)(8) have |

| Section | Condition | Discussion |
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| | | been combined for the permit condition. The non-applicable language “or black start” has not been included in the condition. |
| §63.6625(f) | None | This section is not applicable since the engine is non-emergency type. |
| §63.6625(g) | None | This section is not applicable since the engine is not a CI RICE. |
| §63.6625(h) | (4) | This section is applicable to the engine since it is existing. |
| §63.6625(i) | None | This section is not applicable since the engine is not a CI RICE. |
| §63.6625(j) | (5) | The oil analysis program is an option mentioned in footnote 1 to Table 2d of Subpart ZZZZ for the applicable work practice standard in Item #9 of Table 2d. The oil analysis program is set forth with non-applicable language excluded. |
| §§63.6630(a) through (c) | None | <p>§63.6630(a) is not applicable since the engine is not subject to emission and operating limitations from Subpart ZZZZ.</p> <p>§63.6630(b) is not applicable since the engine is not subject to operating limitations from Subpart ZZZZ.</p> <p>The NOCS requirement of §63.6630(c) is not applicable since none of the requirements in §§63.6630(a) through (b) are applicable.</p> |
| Continuous Compliance Demonstration | | |
| §§63.6635(a) through (c) | None | <p>§63.6635(a) is not applicable since the engine is not subject to emission and operating limitations from Subpart ZZZZ.</p> <p>§§63.6635(b) and (c) are not applicable since the engine is not subject to any continuous monitoring in Subpart ZZZZ.</p> |
| §63.6640(a) | (3) | Since the engine is subject to requirements of Table 2d of Subpart ZZZZ, this section requires compliance with applicable methods in Table 6 to Subpart ZZZZ. In Table 6, the requirements of Item #9 are applicable to the engine. However, it is the same language as in §63.6625(e). Rather than writing a separate and redundant condition, this section is cited with condition (3). |
| §63.6640(b) | (7) | This applicable requirement requires the permittee to report deviations from the applicable requirements of Table 2d to Subpart ZZZZ. Non-applicable language in the regulation has not been included in this permit condition. |
| §63.6640(c) | None | This section is reserved. |
| §63.6640(d) | None | This section is not applicable since the engine is existing. |

| Section | Condition | Discussion |
|----------------------|-----------|---|
| §63.6640(e) | None | Since the engine is an existing non-emergency stationary RICE, it is not required to meet the requirements in Table 8. |
| §63.6640(f) | None | This section does not apply to the engine since it is a non-emergency stationary RICE. |
| Notifications | | |
| §63.6645(a)(5) | None | This section provides an exemption to the notification requirements (including the NOCS under 40 C.F.R. §63.9(h)) for an existing stationary RICE that is not subject to any numerical emission standards. Since the engine meets this criterion, the notifications under §63.6645 do not apply. |
| §63.6645(b) | None | This section is not applicable since the engine is rated less than 500 brake HP. |
| §63.6645(c) | None | This section is not applicable since the engine is existing and rated less than 500 brake HP. |
| §63.6645(d) | None | This section is not applicable since an initial notification is not required. Requirements for initial notification are in §63.9(b), which is not applicable, in accordance with the determination regarding §63.6645(a)(5). |
| §63.6645(e) | None | This section is not applicable since the engine is existing. |
| §63.6645(f) | None | This section is not applicable since an initial notification is not required. |
| §§63.6645(g) and (h) | None | These sections are not applicable to the engines since no performance tests under Subpart ZZZZ are required. |
| Reporting | | |
| §§63.6650(a) and (b) | None | These sections are not applicable to the engine since it does not meet any of the criteria in Table 7 to Subpart ZZZZ. In particular, each engine type in Table 7 are non-emergency. The permittee's engine is emergency type. |
| §63.6650(c) | None | This section is not applicable since it pertains to Compliance Reports, which are not required for the engines since they meet none of the criteria in Table 7 to Subpart ZZZZ (cf. §63.6650(a)). |
| §63.6650(d) | None | This section is not applicable since it pertains to Compliance Reports, which are not required for the engines since they meet none of the criteria in Table 7 to Subpart ZZZZ (cf. §63.6650(a)). Furthermore, this section is not applicable since the engine is not subject to emissions and operating limitations from Subpart ZZZZ. |
| §63.6650(e) | None | This section is not applicable since the engine is not subject to emissions and operating limitations from Subpart ZZZZ. |

| Section | Condition | Discussion |
|---------------------------|-----------|---|
| §63.6650(f) | (8) | This section is an applicable requirement to report deviations (as defined in 40 C.F.R. §63.6675). This requirement is modified for coherence in the renewal permit. |
| §63.6650(g) | None | This section is not applicable since the engine is existing and does not fire landfill gas or digester gas. |
| Recordkeeping | | |
| §63.6655(a) | None | This section does not apply since the engine is not subject to emission and operating limitations. |
| §63.6655(b) | None | This section does not apply since neither CEMS nor CPMS are employed for the engine. |
| §63.6655(c) | None | This section is not applicable since the engine is existing and does not fire landfill gas or digester gas. |
| §63.6655(d) | None | This section does not apply since the engine is not subject to emission and operating limitations. |
| §63.6655(e) | (9) | This section requires demonstration of continuous compliance using recordkeeping of the information required by §63.6625(e) and §63.6625(e)(3). The engine is existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to Subpart ZZZZ; therefore, it meets the criteria of §63.6655(e)(3). Hence, this recordkeeping requirement has been written in the permit. The regulation language “any of the following stationary RICE” in the last sentence has been replaced with the applicable language “an existing stationary RICE located at an area source of HAP emissions subject to the management practices in Table 2d to 40 C.F.R. 63 Subpart ZZZZ.” |
| §63.6655(f) | None | This section is non-applicable since the engine is non-emergency type. |
| §63.6660(a), (b), and (c) | (10) | These applicable requirements have been written in the permit. |
| General Provisions | | |
| §63.6665 | (11) | The engine does not meet any of the exemption criteria of this section. A condition has been written that will IBR the applicable requirements of Table 8 to Subpart ZZZZ. |

- c. **Engine 168G3.** The engine drives an electric generator and is considered an emergency engine. This unit is a spark ignition (SI) 4-stroke lean burn (4SLB) engine rated at 608 hp, and constructed in 1998. The engine is an *Existing stationary RICE* since it meets the criteria of §63.6590(a)(1)(iii). The engine does not meet any of the criteria for limited requirements or NSPS requirements in §§63.6590(b) and (c), respectively.

| Section | Condition | Discussion |
|---|-----------|---|
| Compliance Date | | |
| §63.6595(a)(1) | (1) | The engine is considered “an existing stationary SI RICE located at an area source of HAP emissions.” Therefore, the compliance date is October 19, 2013. Since the compliance date is future at the time of this renewal there is a note at the end of this requirement specifying that all subsequent Subpart ZZZZ requirements are subject to this compliance date. |
| Emission and Operating Limitations | | |
| §63.6600 | None | This section is not applicable since the engine is not located at a major source of HAP. |
| §63.6601 | None | This section is not applicable since the engine is not located at a major source of HAP. |
| §63.6602 | None | This section is not applicable since the engine is not located at a major source of HAP. |
| §63.6603(a) | (2) | This section is applicable since the engine is located at an area source. In particular, only Item #5 in Table 2d to Subpart ZZZZ is applicable. Note: The applicable requirements of Table 2d, Item #5, are considered “Work Practice Requirements”. These are not the same as emission limitations and operating limitations described elsewhere in the regulation. Emission limitations are items such as reduction of carbon monoxide emissions and limiting the concentration of formaldehyde in the exhaust stream (cf. non-applicable Table 2a of the subpart). Operating limitations are items such as maintaining pressure drop across a catalyst, and maintaining exhaust gas temperature in a specified range (cf. non-applicable Table 2b of the subpart). However, work practices pertain to frequencies of oil changes, inspections of spark plugs and belts and hoses. The notes following Table 2d in the regulation affirm that these requirements are management practice requirements. Based upon these distinctions, all associated MRR requirements in the regulation that pertain to emission limits and operating limits will not be included in the permit since they are not applicable to the engine. |
| §63.6603(b) | None | This section is not applicable since the engine is not a CI RICE in Alaska. |
| §63.6604 | None | This section is not applicable since the engine is spark ignition. |

| Section | Condition | Discussion |
|--|-----------|---|
| General Compliance Requirements | | |
| §63.6605(a) | None | This section is not applicable since the engine is not subject to emission limitations and operating limitations of Subpart ZZZZ. |
| §63.6605(b) | (7) | This general duty requirement is included in the permit. |
| Testing and Initial Compliance Requirements | | |
| §63.6610 | None | This section is not applicable since the engine is not located at a major source of HAP. |
| §63.6611 | None | This section is not applicable since the engine is existing and is not located at a major source of HAP. |
| §63.6612 | None | <p>§63.6612(a) is applicable since the engine is an existing stationary RICE at an area source. However, no specific requirements in §63.6612 apply to the engine, as is demonstrated below.</p> <p>§63.6612(a) refers to applicable requirements in Table 4 and 5 to Subpart ZZZZ. All of the items in Tables 4 and 5 are for engines complying with requirements to reduce CO or formaldehyde emissions. However, the engine is not subject to any requirement to reduce CO or formaldehyde emissions (as discussed above under Emission and Operating Limitations); therefore, testing under §63.6612(a) does not apply.</p> <p>§63.6612(b) applies in the case when testing has already been performed. This requirement is not applicable to the engine.</p> |
| §63.6615 | None | This section is not applicable since the engine is not subject to emission limitations and operating limitations under Subpart ZZZZ. |
| §§63.6620(a) through (i) | None | This section is not applicable since the engine is not subject to emission limitations and operating limitations under Subpart ZZZZ. |
| §63.6625(a) | None | This section is not applicable since there is no CEMS for the engines. |
| §63.6625(b) | None | This section is not applicable since there is no CPMS for the engines. |
| §63.6625(c) | None | This section is not applicable since the engines do not fire landfill gas or digester gas. |
| §63.6625(d) | None | This section is not applicable since the engine is greater than 500-hp and also is located at an area source. |
| §63.6625(e) | (3) | The engine meets the criteria of §63.6625(e)(3), and is therefore required to comply with this section. The language of both §63.6625(e) and §63.6625(e)(3) have been combined for the permit condition. The non-applicable language “or black start” has not been included in the condition. |

| Section | Condition | Discussion |
|--|-----------|---|
| §63.6625(f) | (4) | The engine meets the criteria of §63.6625(f), and is therefore subject to the requirement. The non-applicable language concerning a major source of HAP emissions has not been included in the condition. |
| §63.6625(g) | None | This section is not applicable since the engine is emergency SI RICE. |
| §63.6625(h) | (5) | This section is applicable to the engine since it is existing. |
| §63.6625(i) | None | This section is not applicable since the engine is not a CI RICE. |
| §63.6625(j) | (6) | The oil analysis program is an option mentioned in footnote 1 to Table 2d of Subpart ZZZZ for the applicable work practice standard in Item #5 of Table 2d. The oil analysis program is set forth with non-applicable language excluded. |
| §§63.6630(a) through (c) | None | <p>§63.6630(a) is not applicable since the engine is not subject to emission and operating limitations from Subpart ZZZZ.</p> <p>§63.6630(b) is not applicable since the engine is not subject to operating limitations from Subpart ZZZZ.</p> <p>The NOCS requirement of §63.6630(c) is not applicable since none of the requirements in §§63.6630(a) through (b) are applicable.</p> |
| Continuous Compliance Demonstration | | |
| §§63.6635(a) through (c) | None | <p>§63.6635(a) is not applicable since the engine is not subject to emission and operating limitations from Subpart ZZZZ.</p> <p>§§63.6635(b) and (c) are not applicable since the engine is not subject to any continuous monitoring in Subpart ZZZZ.</p> |
| §63.6640(a) | (3) | Since the engine is subject to requirements of Table 2d of Subpart ZZZZ, this section requires compliance with applicable methods in Table 6 to Subpart ZZZZ. In Table 6, the requirements of Item #9 are applicable to the engine. However, it is the same language as in §63.6625(e). Rather than writing a separate and redundant condition, this section is cited with condition (3). |
| §63.6640(b) | (8) | This applicable requirement requires the permittee to report deviations from the applicable requirements of Table 2d to Subpart ZZZZ. Non-applicable language in the regulation has not been included in this permit condition. |
| §63.6640(c) | None | This section is reserved. |
| §63.6640(d) | None | This section is not applicable since the engine is existing. |

| Section | Condition | Discussion |
|----------------------|-----------|---|
| §63.6640(e) | None | Since the engine is an existing emergency stationary RICE, it is not required to meet the requirements in Table 8. |
| §63.6640(f)(1) | (9) | This section applies to the engines since they are existing emergency stationary RICE located at an area source. The first sentence of §63.6640(f)(1)(iii) is applicable in this case. However, the remaining requirements apply to generators that supply power to the electric grid. The engine in this case is not used for this specific purpose; therefore, the non-applicable language is excluded from condition. |
| §63.6640(f)(2) | None | This section is not applicable since the engine is not located at a major source of HAP. |
| Notifications | | |
| §63.6645(a)(5) | None | This section provides an exemption to the notification requirements (including the NOCS under 40 C.F.R. §63.9(h)) for an existing stationary emergency RICE. Since the engine meets these criteria, the notifications under §63.6645 do not apply. |
| §63.6645(b) | None | This section is not applicable since the engine is not located at a major source of HAP. |
| §63.6645(c) | None | This section is not applicable since the engine is existing and is not located at a major source of HAP. |
| §63.6645(d) | None | This section is not applicable since an initial notification is not required. Requirements for initial notification are in §63.9(b), which is not applicable, in accordance with the determination regarding §63.6645(a)(5). |
| §63.6645(e) | None | This section is not applicable since the engine is existing. |
| §63.6645(f) | None | This section is not applicable since an initial notification is not required. |
| §§63.6645(g) and (h) | None | These sections are not applicable to the engines since no performance tests under Subpart ZZZZ are required. |
| Reporting | | |
| §§63.6650(a) and (b) | None | These sections are not applicable to the engine since it does not meet any of the criteria in Table 7 to Subpart ZZZZ. In particular, each engine type in Table 7 are non-emergency. The permittee's engine is emergency type. |
| §63.6650(c) | None | This section is not applicable since it pertains to Compliance Reports, which are not required for the engines since they meet none of the criteria in Table 7 to Subpart ZZZZ (cf. §63.6650(a)). |
| §63.6650(d) | None | This section is not applicable since it pertains to Compliance Reports, which are not required for the engines since they meet none of the criteria in Table 7 to Subpart ZZZZ (cf. §63.6650(a)). Furthermore, this |

| Section | Condition | Discussion |
|---------------------------|-----------|---|
| | | section is not applicable since the engine is not subject to emissions and operating limitations from Subpart ZZZZ. |
| §63.6650(e) | None | This section is not applicable since the engine is not subject to emissions and operating limitations from Subpart ZZZZ. |
| §63.6650(f) | (10) | This section is an applicable requirement to report deviations (as defined in 40 C.F.R. §63.6675). This requirement is modified for coherence in the renewal permit. |
| §63.6650(g) | None | This section is not applicable since the engine is existing and does not fire landfill gas or digester gas. |
| Recordkeeping | | |
| §63.6655(a) | None | This section does not apply since the engine is not subject to emission and operating limitations. |
| §63.6655(b) | None | This section does not apply since neither CEMS nor CPMS are employed for the engine. |
| §63.6655(c) | None | This section is not applicable since the engine is existing and does not fire landfill gas or digester gas. |
| §63.6655(d) | None | This section does not apply since the engine is not subject to emission and operating limitations. |
| §63.6655(e) | (11) | This section requires demonstration of continuous compliance using recordkeeping of the information required by §63.6625(e) and §63.6625(e)(3). The engine is existing stationary emergency RICE located at an area source; therefore, it meets the criteria of §63.6655(e)(2). Hence, this recordkeeping requirement has been written in the permit. The regulation language “any of the following stationary RICE” in the last sentence has been replaced with the applicable language “an existing stationary RICE located at an area source of HAP emissions subject to the management practices in Table 2d to 40 C.F.R. 63 Subpart ZZZZ.” |
| §63.6655(f) | (12) | The engines meet the criteria of §63.6655(f)(2); therefore, this section is applicable. The language of both §63.6655(f) and §63.6655(f)(2) have been combined to create one coherent and applicable condition. |
| §63.6660(a), (b), and (c) | (13) | These applicable requirements have been written in the permit. |
| General Provisions | | |
| §63.6665 | (14) | The engine does not meet any of the exemption criteria of this section. A condition has been written that will IBR the applicable requirements of Table 8 to Subpart ZZZZ. |

Non-Applicability Determinations

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

- a. 40 C.F.R. 60 Subparts K,Ka- *Standards of Performance for Storage Vessels for Petroleum Liquids* - All tanks at Gladly station are below 40,000 gallons in capacity.
- b. 40 C.F.R. 60 Subpart KKK- *Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plant* - Gladly station is not engaged in the extraction or fractionation of natural gas liquids from field gas, the fractionation of mixed natural gas liquids to natural gas products, or both.
- c. 45CSR21- *To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds*: This facility is not located in one of the affected counties.
- d. 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.”
- e. WVDEP has determined that 45CSR10 does not apply to gas fired engines. Also 45CSR10 is not applicable to BL1, BL2, BL4, BL5 because they are less than 10 MMBtu/hr.
- f. 40 CFR 64 – The reboilers (BLR1, BLR2, BLR4) do not have any add-on control; therefore, in accordance with 40 C.F.R §64.2(a)(2), CAM is not applicable to these sources. The Heating System Boiler (BLR5) is not a major source and does not utilize a control device; therefore, CAM is not applicable. The line heaters (HTR3, HTR4) do not have any add-on control; therefore, in accordance with 40 C.F.R §64.2(a)(2), CAM is not applicable to these sources. The engines (16801, 16802, 16803, 168G1, 168G3) do not have any add-on control; therefore, in accordance with 40 C.F.R §64.2(a)(2), CAM is not applicable to these sources. The TEG Dedyrator is not a pre-control major source for any pollutant for which it has an emission limitation; therefore, in accordance with 40 C.F.R §64.2(a)(3), CAM is not applicable to this source.
- g. Due to installation of a federally enforceable flare this facility is not a major source of HAPs; hence, 40 C.F.R 63 (MACT) is not applicable to this facility (with the exception of the engines being subject to 40 C.F.R. 63 Subpart ZZZZ).
- h. According to 45CSR§2-11.1, BL1, BL2, BL4, BL5 are exempted from MRR (Monitoring, recordkeeping and reporting) because they each have a heat input less than 10 MMBtu/hr.
- i. Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule. The facility has not made any changes that trigger a PSD modification; therefore, the requirements of the GHG tailoring rule are non-applicable.

Request for Variances or Alternatives

With respect to 40 C.F.R. 63 Subpart ZZZZ, the permittee has submitted a compliance extension request to U.S. EPA for the engines 16801, 16802, and 16803. The engines currently have no air pollution control devices; however, the permittee plans to install oxidation catalysts to comply with the RICE MACT.

Insignificant Activities

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

Comment Period

Beginning Date: September 14, 2012
Ending Date: October 15, 2012

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

Denton B. McDerment, PE
Title V Permit Engineer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th 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

Denton B. McDerment, PE
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1221 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

No comments were received from either the public or U.S. EPA.