

Fact Sheet



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

This Fact Sheet serves to address the changes specific to this Significant Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on October 31, 2012.

Permit Number: **R30-07100008-2012**
Application Received: **September 6, 2012**
Plant Identification Number: **07100008**
Permittee: **Columbia Gas Transmission, LLC**
Facility Name: **Seneca Compressor Station**
Mailing Address: **1700 MacCorkle Ave., SE, Charleston, WV 25314-1273**

Permit Action Number: *SM01* Revised: *July 23, 2013*

Physical Location: Seneca Rocks, Pendleton County, West Virginia
UTM Coordinates: 639.50 km Easting • 4,301.10 km Northing • Zone 17
Directions: Traveling US Route 33 East from Elkins, turn left at the intersection with State Route 28 (Seneca Rocks). Proceed approximately 2 miles to the station which is located on the left.

Facility Description

The Seneca 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 currently consists of one (1) 13,750hp and two (2) 7,700hp natural gas fired turbine engines, two (2) emergency generators, two (2) heating system boilers, one (1) liquids knockout system and fourteen (14) storage tanks of various sizes.

This modification includes the following changes to the Seneca Station approved under R13-2715C, issued on June 4, 2013.

- Addition of a 1,557 hp Solar Saturn turbine/centrifugal compressor.
- Addition of a new Solar Mars turbine rated at 15,432 hp, and associated 0.8 mmbtu/hr fuel gas heater.
- Addition of 40 Bruest model 24-72 catalytic space heaters. Each space heater is rated at 72,000 BTU/hr.
- The old Waukesha model L5990GU (rated at 420 hp) will be replaced with a new Waukesha model VGF36GL (rated at 925 hp).

Emissions Summary

The change in potential emissions associated with the significant modification (SM01) is as follows:

Pollutants	Change in Potential Emissions, TPY
CO	+45.46
NOx	+39.37
PM/PM _{2.5}	+9.09
SO ₂	+1.52
VOC	+4.89
Formaldehyde	+0.54
Other HAPs	+0.32
Total HAPs	+0.86

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 319.37 tons/yr of NOx and 298.23 tons/yr of CO. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Columbia Gas Transmission, LLC 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.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:

45CSR13	Minor New Source Review permits for stationary sources
45CSR16	Standards of Performance for New Stationary Sources Pursuant to 40 C.F.R. Part 60
45CSR30	Operating permit requirement.
40 C.F.R. Part 60 Subpart KKKK	Standards of Performance for Stationary Combustion Turbines
40 C.F.R. Part 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE).

	40 C.F.R. Part 60 Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
State Only:	45CSR4 45CSR17	No objectionable odors. 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>)
R13-2715C	June 4, 2013	

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

R13-2715C has been attached to this Title V significant modification and includes the following changes:

- Table 1.0 was updated to include the new equipment.
- New conditions 4.1.5 through 4.1.16 were added.
- Old conditions 4.2.1 and 4.2.2 were modified to include the new turbines.
- New condition 4.2.3 was added.
- Old conditions 4.3.4, 4.3.5, and 4.3.6, were modified to include the new equipment.
- New conditions 4.3.7 through 4.3.11 were added.
- Old condition 4.4.1 was modified to include the new equipment.
- New conditions 4.4.2 through 4.4.6 were added.

40 C.F.R. Part 63 Subpart ZZZZ; National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)-

The proposed emergency generator is subject to the area source requirements of 40 CFR 63, Subpart ZZZZ. Per 40 CFR§63.6590(c)(1), a new stationary RICE at an area source complies with 40 CFR 63, Subpart ZZZZ by complying with 40 CFR 60, Subpart JJJJ.

40 C.F.R. Part 60 Subpart KKKK; Standards of Performance for Stationary Combustion Turbines-

Per §60.4305, Subpart KKKK applies to combustion turbines with a heat input at peak load of 10 MMBTU/hr or greater. Since the new Solar Mars turbine (E08) is rated at 121 MMBTU/hr and the Solar Saturn turbine (E07) is rated at 25 MMBTU/hr, they will be subject to the rule. The turbines (E07, E08) shall meet NOx emission standards of 40 CFR 60, Subpart KKKK, Table 1 which are shown below:

Unit	Combustion turbine type	Heat input	NOx emission standard
E07	Modified or reconstructed turbine	≤ 50 MMBtu/h	150 ppm at 15 percent O ₂
E08	New turbine firing natural gas	> 50 MMBtu/h and ≤ 850 MMBtu/h	25 ppm at 15 percent O ₂

Compliance with the SO₂ limit will be demonstrated by only burning natural gas which contains total potential sulfur emissions less than 26 ngSO₂/ J (0.060 lb SO₂/ MMBtu) heat input. Per 40CFR§60.4365(a), the turbines will be exempt from monitoring the total sulfur content of the fuel by demonstrating compliance with the FERC tariff limit on total sulfur content of <20 grains of sulfur per 100 standard cubic feet.

40 C.F.R. Part 60 Subpart JJJJ; Standards of Performance for Stationary Spark Ignition Internal Combustion Engines -

The proposed 925 hp emergency generator G3 is defined under 40 CFR 60, Subpart JJJJ as a stationary spark-ignition internal combustion engine (SI ICE) and is, pursuant to §60.4230(a)(4), subject to the applicable provisions of the rule. This is an emergency engine greater than 500 HP that was manufactured after July 1, 2007. The engine shall meet emission standards of 40 CFR 60, Subpart JJJJ, Table 1 (160, 540, 86ppmvd at 15% O₂ for NO_x, CO and VOC respectively).

Non-Applicability Determinations

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

- a. 45CSR4 shall not apply to the following sources of objectionable odor until such time as feasible control methods are developed: Internal combustion engines.
[45CSR§4-7.1 State-Enforceable only.]
- b. 45CSR10; *To Prevent and Control Air Pollution from the Emission of Sulfur Oxides*-The two heating system boilers are not subject to 45CSR10 since the design heat input for each heating system boiler is less than 10 mmBtu/hr.
- 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. 40 C.F.R. Part 60 Subpart Dc; *Standards of Performance for Steam Generating Units*- The Seneca Compressor Station is not subject to 40 C.F.R. Part 60 Subpart Dc since the boilers at this facility are less than 10 mmBtu/hr.

- f. 40 C.F.R. Part 60 Subpart K; *Standards of Performance for Storage Vessels for Petroleum Liquids*- All tanks at the Seneca Compressor Station are below 40,000 gallons in capacity.
- g. 40 C.F.R. Part 60 Subpart Ka; *Standards of Performance for Storage Vessels for Petroleum Liquids*- All tanks at the Seneca Compressor Station are below 40,000 gallons in capacity.
- h. 40 C.F.R. Part 60 Subpart Kb; *Standards of Performance for Volatile Organic Liquid Storage Vessels* - All tanks at Seneca station are below 75 m³ in capacity.
- i. 40 C.F.R. Part 60 Subpart GG; *Standards of Performance for Stationary Gas Turbines*- The four turbines (E05, E06, E07 and E08) at Seneca Compressor Station are not subject to Subpart GG since they are subject to 40 C.F.R. Part 60 Subpart KKKK. Turbine EO4 was constructed prior to the applicability date of October 3, 1977.
- j. 40 C.F.R. Part 60 Subpart KKK; *Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plant*- Seneca Compressor 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. Turbine E04 was constructed prior to the applicability date of October 3, 1977.
- k. 40 C.F.R. Part 63 Subpart HH; *National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities*- The Seneca Compressor Station is not subject to Subpart HH since Seneca Compressor Station is not a natural gas production facility.
- l. 40 C.F.R. Part 63 Subpart HHH; *National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities*- The Seneca Compressor Station is not a major source of HAPs and does not have a dehydration facility.
- m. 40 C.F.R. Part 63 Subpart YYYY; *National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines* - Seneca Station is not subject to Subpart YYYY since it is not a major source of HAPs.
- n. 40 C.F.R. Part 64; *Compliance Assurance Monitoring*- The facility does not have any pollutant specific emissions units (PSEU) at this facility that satisfy all of the applicability criteria requirements of 40 CFR §64.2(a), i.e., that: 1) have pre-control regulated pollutant potential emissions (PTE) equal to or greater than the “major” threshold limits to be classified as a major source; 2) are subject to an emission limitation or standard and; 3) have a control device to achieve compliance with such emission limitation or standard. Therefore, the facility is not subject to the Compliance Assurance Monitoring (CAM) rule.
- o. 40 C.F.R. 60 Subpart IIII; *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* - There are no compression ignition engines at the facility.

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: June 6, 2013
Ending Date: July 5, 2013

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

Beena Modi
Title V Permit Writer
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

Beena Modi
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1228 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

None