

Fact Sheet



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

This Fact Sheet serves to address the changes specific to this Minor 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: **R30-09900014-2012**

Application Received: **June 30, 2015**

Plant Identification Number: **03-54-099-00014**

Permittee: **Columbia Gas Transmission, LLC**

Facility Name: **Kenova Compressor Station**

Mailing Address: **1700 MacCorkle Avenue, SE, Charleston, WV 25314**

Permit Action Number: MM02 Revised: *January 19, 2016*

Physical Location:	Kenova, Wayne County, West Virginia
UTM Coordinates:	360.9 km Easting • 4,248.0 km Northing • Zone 17
Directions:	Traveling I-64 West from Charleston, take the Kenova-Ceredo exit for US Route 52. Follow US 52 South approximately 2 miles to Route 1 intersection. The station is located on Route 1 near the intersection of Route 1 and Route 52.

Facility Description

The Kenova Station is a natural gas transmission and oil and gas production facility covered by Standard Industrial Code (SIC) 4922. The station has the potential to operate seven (7) days per week, twenty-four (24) hours per day. The station consists of four (4) 2000-hp and four (4) 1100-hp natural gas fired reciprocating compressor engines, a wastewater evaporation injection system and numerous storage tanks of various sizes. On-site support equipment includes one (1) 500-hp emergency generator, one (1) 6.3 MMBtu/hr heating system boiler and one (1) 1.5 MMBtu/hr line heater. The facility also has a 1,000 gallon mercaptan tank.

This modification is for the previously installed non-selective catalytic reduction (NSCR) control devices on Engines E05-E08 and the recognition that this facility is an area source of HAPs. This modification incorporates changes under R13-2251E.

Emissions Summary

Plant wide Emissions Summary [Tons per Year]

Regulated Pollutants	Current Potential Emissions	Change in Potential Emissions	New Potential Emissions
Carbon Monoxide (CO)	802.35	-569.95	232.40
Nitrogen Oxides (NO _x)	1,341.62	0.0	1,341.32
Particulate Matter (PM ₁₀)	18.45	0.0	18.45
Total Particulate Matter (TSP)	18.45	0.0	18.45
Sulfur Dioxide (SO ₂)	0.38	0.0	0.38
Volatile Organic Compounds (VOC)	41.76	-1.82	39.94

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Current Potential Emissions	Change in Potential Emissions	New Potential Emissions
Formaldehyde	9.46	0.0	9.46
Total HAPs	19.14	0.0	19.14

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

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 232.40 tons per year of Carbon Monoxide and 1,341.32 tons per year of Nitrogen Oxides. 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	Construction Permits
	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for Hazardous Air Pollutants
	40CFR63 Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines.

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)
R13-2251E	October 2, 2015	

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," which may be downloaded from DAQ's website.

Determinations and Justifications

This facility has been incorrectly designated as a major source of HAP emissions in recent permitting actions issued by the DAQ. Columbia has submitted the proper documentation which shows that this facility is not a major source of HAP emissions (specifically formaldehyde). Therefore, along with adding the NSCR control devices to engines E05-E08, changes have been made to the Title V Permit to recognize that the facility is in fact an area source of HAPs.

Section 1.0 Emission Units and Listing of Applicable Requirements

- The applicable requirements for boiler BLR2 were updated to include the current R13 conditions and to remove the non-applicable 40CFR63 Subpart DDDDD requirements. See Non-Applicability Determinations.
- The applicable requirements for the line heater HTR1 were updated to include the current R13 conditions.
- The control devices listed for engines E05-E08 in Table 1.0 were changed from N/A to NSCR.
- The applicable requirements listed for Engines E01-E08 and G3 were updated;

On July 8, 2005 Columbia submitted a permit determination detailing the MACT applicability (40CFR63 Subpart ZZZZ) surrounding this facility. A complete technical background of this determination can be found in Permit Determination PD05-097, in which the DAQ agreed with this HAP non-major determination in regards to 40CFR63 Subpart ZZZZ.

As an area source, the applicable requirements for engines were updated such that:

- E01-E04 are existing 2SLB engines >500 hp and are subject to work practice standards. E01-E04 are subject to 40CFR§63.6595(a)(1); §63.6603(a); §§63.6625(e), (h), & (j); §§63.6605(a) & (b); §§63.6640(a) & (e), §§63.6655(d) & (e); 40CFR 63 Subpart ZZZZ Tables 2d(6) and 6(9); General Provisions apply except: §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h) per §63.6645(a)(5)

- E05-E08 are existing 4SRB engines >500 hp and must install a NSCR to reduce HAP emissions, conduct an annual compliance demonstration, and monitor the catalyst inlet temperature. E05-E08 are subject to 40CFR§63.6595(a)(1); §63.6603(a); §63.6625(h); §63.6630; §63.6605; §63.6635; §§63.6640(a), (b), (c), & (e); §63.6645(a),(g), (h); §§63.6655(a),(b), (d), (e); §§63.6650(a), (b), (c), (d), (e), (f); 40CFR63 Subpart ZZZZ Table 2d (12), Table 4 (2 &3) Table 5 (14), Table 6 (15), Table 7(3).
- G3 is an existing emergency SI engine and is subject to work practice standards. G3 is subject to 40CFR§63.6595(a)(1); §63.6603(a); §§63.6625(e), (f), (h), & (j); §63.6605, §§63.6640(a), (e), & (f), §63.6655(except (c)); 40CFR63 Subpart ZZZZ Table 2d (5); Footnote 2 of Table 2d; 40CFR 63 Subpart ZZZZ Table 6 (9); General Provisions apply except: §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), and 63.9(b)-(e), (g) and (h) per §63.6645(a)(5).
- The applicable requirements for the Mercaptan tank were updated to include the current R13 conditions.

Section 21.0 45CSR13, 45CSR14, and Consent Order Requirements

- Updated the listed R13 Permit to R13-2251E.

Section 23.0 Permit Shield

- Updated 23.2.q since the addition of control devices affects the CAM applicability.

Appendix A

- Updated the R13 Permit to R13-2251E.

Non-Applicability Determinations

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

40CFR63, Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants (NESHAP) for Major Sources: Industrial Commercial, and Institutional Boilers and Process Heaters) - The Kenova Compressor Station is not a major source of HAPs in regards to 40CFR63 Subpart DDDDD therefore this rule does not apply.

40CFR60 Subpart OOOO (Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution) - The following affected sources which commence construction, modification or reconstruction after August 23, 2011 are subject to the applicable provisions of this subpart:

- a. Each gas well affected facility, which is a single natural gas well.

There are no gas wells at this facility. Therefore, all requirements regarding gas well affected facilities under 40 CFR 60 Subpart OOOO would not apply.

- b. Each centrifugal compressor affected facility, which is a single centrifugal compressor using wet seals that is located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. For the purposes of this subpart, your centrifugal compressor is considered to have commenced construction on the date the compressor is installed (excluding relocation) at the facility. A centrifugal compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.

The Kenova Compressor Station is not located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. Therefore, all requirements regarding centrifugal compressors under 40 CFR 60 Subpart OOOO would not apply.

- c. Each reciprocating compressor affected facility, which is a single reciprocating compressor located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. For the purposes of this subpart, your reciprocating compressor is considered to have commenced construction on the date the compressor is installed (excluding relocation) at the facility. A reciprocating compressor located at a well site, or an adjacent well site and servicing more than one well site, is not an affected facility under this subpart.

The Kenova Compressor Station is not located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. Therefore, all requirements regarding reciprocating compressors under 40 CFR 60 Subpart OOOO would not apply.

- d. Pneumatic Controllers

- Each pneumatic controller affected facility, which is a single continuous bleed natural gas-driven pneumatic controller operating at a natural gas bleed rate greater than 6 scfh which commenced construction after August 23, 2011, and is located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment and not located at a natural gas processing plant.
- Each pneumatic controller affected facility, which is a single continuous bleed natural gas-driven pneumatic controller which commenced construction after August 23, 2011, and is located at a natural gas processing plant.

The Kenova Compressor Station is not located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment. Therefore, all requirements regarding pneumatic controllers under 40 CFR 60 Subpart OOOO would not apply.

- e. Each storage vessel affected facility, which is a single storage vessel, located in the oil and natural gas production segment, natural gas processing segment or natural gas transmission and storage segment.

40CFR60 Subpart OOOO defines a storage vessel as a unit that is constructed primarily of nonearthen materials (such as wood, concrete, steel, fiberglass, or plastic) which provides structural support and is designed to contain an accumulation of liquids or other materials. The following are not considered storage vessels:

- Vessels that are skid-mounted or permanently attached to something that is mobile (such as trucks, railcars, barges or ships), and are intended to be located at a site for less than 180 consecutive days. If the source does not keep or are not able to produce records, as required by §60.5420(c)(5)(iv), showing that the vessel has been located at a site for less than 180 consecutive days, the vessel described herein is considered to be a storage vessel since the original vessel was first located at the site.
- Process vessels such as surge control vessels, bottoms receivers or knockout vessels.
- Pressure vessels designed to operate in excess of 204.9 kilopascals and without emissions to the atmosphere.

This rule requires that the permittee determine the VOC emission rate for each storage vessel affected facility utilizing a generally accepted model or calculation methodology within 30 days of startup, and minimize emissions to the extent practicable during the 30 day period using good engineering practices. For each storage vessel affected facility that emits more than 6 tpy of VOC, the permittee must reduce VOC emissions by 95% or greater within 60 days of startup. The compliance date for applicable storage vessels is October 15, 2013.

The storage vessels located at the Kenova Compressor Station commenced construction, modification, or reconstruction before August 23, 2011. Therefore, Columbia is not required by this section to reduce VOC emissions by 95%.

- f. The group of all equipment, except compressors, within a process unit is an affected facility.
- Addition or replacement of equipment for the purpose of process improvement that is accomplished without a capital expenditure shall not by itself be considered a modification under this subpart.
 - Equipment associated with a compressor station, dehydration unit, sweetening unit, underground storage vessel, field gas gathering system, or liquefied natural gas unit is covered by §§60.5400, 60.5401, 60.5402, 60.5421 and 60.5422 of this subpart if it is located at an onshore natural gas processing plant. Equipment not located at the onshore natural gas processing plant site is exempt from the provisions of §§60.5400, 60.5401, 60.5402, 60.5421 and 60.5422 of this subpart.
 - The equipment within a process unit of an affected facility located at onshore natural gas processing plants and described in paragraph (f) of this section are exempt from this subpart if they are subject to and controlled according to subparts VVa, GGG or GGGa of this part.

The Kenova Compressor Station is not a natural gas processing plant. Therefore, Leak Detection and Repair (LDAR) requirements for onshore natural gas processing plants would not apply.

- g. Sweetening units located at onshore natural gas processing plants that process natural gas produced from either onshore or offshore wells.
- Each sweetening unit that processes natural gas is an affected facility; and
 - Each sweetening unit that processes natural gas followed by a sulfur recovery unit is an affected facility.
 - Facilities that have a design capacity less than 2 long tons per day (LT/D) of hydrogen sulfide (H₂S) in the acid gas (expressed as sulfur) are required to comply with recordkeeping and reporting requirements specified in §60.5423(c) but are not required to comply with §§60.5405 through 60.5407 and paragraphs 60.5410(g) and 60.5415(g) of this subpart.
 - Sweetening facilities producing acid gas that is completely reinjected into oil-or-gas-bearing geologic strata or that is otherwise not released to the atmosphere are not subject to §§60.5405 through 60.5407, 60.5410(g), 60.5415(g), and 60.5423 of this subpart.

There are no sweetening units at the Kenova Compressor Station. Therefore, all requirements regarding sweetening units under 40 CFR 60 Subpart OOOO would not apply.

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: Not Applicable for minor modifications.

Ending Date: N/A

Point of Contact

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

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Division of Air Quality
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Charleston, WV 25304
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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.

Response to Comments (Statement of Basis)

Not applicable.