

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 June 1, 2020.

Permit Number: **R30-03900670-2020**
Application Received: **July 2, 2024**
Plant Identification Number: **03-54-039-00670**
Permittee: **Columbia Gas Transmission, LLC**
Facility Name: **Elk River Compressor Station**
Mailing Address: **1700 MacCorkle Avenue SE, Charleston, WV 25314**

Permit Action Number: *MM02* Revised: *October 1, 2024*

Physical Location: Clendenin, Kanawha County, West Virginia
UTM Coordinates: 472.0 km Easting • 4,259.9 km Northing • Zone 17
Directions: From Charleston, travel north on I-79 to Exit 19. Take Exit 19 and take
US 119 South to Clendenin. In Clendenin, turn onto State Route 4 East
for approximately 1.5 miles. The compressor station is on the right.

Facility Description

The Elk River Compressor Station increases the pressure of the incoming natural gas. The facility has three compressors to increase the pressure of the natural gas. The compressors are powered by three 15,600-HP Solar Mars 100 turbines. The turbines are equipped with advanced dry-low-NO_x combustion controls from SoLoNO_x. Other emission units at the facility include two fuel gas heaters; catalytic heaters with an aggregate design heat input of 2,404 mmBTU/hr; a 1,000-gallon wastewater storage tank; and a 10,000-gallon pipeline liquids tank. The facility is equipped with an 880-HP four-stroke lean-burn Waukesha VGF-L36GL natural gas-fired reciprocating internal combustion engine (RICE) to power an emergency generator. (SIC: 4922, NAICS: 486210)

This minor modification permit incorporates the revisions made with the Class I Administrative Update Permit R13-3294C. The changes include revising the Carbon Monoxide performance testing schedule for the turbines, removing the 40 C.F.R. Part 60 Subpart OOOOa requirements for fugitive emissions components, and other administrative changes. No physical changes will be made to the facility due to this modification.

Emissions Summary

The facility-wide potential emissions will not change due to this modification.

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 243.66 tpy of Carbon Monoxide. 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	NSR Permit Requirements.
	45CSR30	Operating Permit Requirements.

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

The active permits/consent orders affected by this modification are as follows:

Permit or Consent Order Number	Date of Issuance
R13-3294C	July 9, 2024

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 minor modification permit incorporates the revisions made with the Class I Administrative Update Permit R13-3294C. The changes include revising the Carbon Monoxide performance testing schedule for the turbines, removing the 40 C.F.R. Part 60 Subpart OOOOa requirements for fugitive emissions components, and other administrative changes. No physical changes will be made to the facility due to this modification.

The following changes have been made to the Title V operating permit for this modification:

1. Section 1.0. – Emission Units and Active R13, R14, and R19 Permits
 - a. The date of the purchase order for the turbines, March 3, 2015, was added to the Emission Units Table as the date that construction of the turbines commenced.

- b. For the heaters HTR1 and HTR2, the emission unit description has been revised from “Process Heater” to “Fuel Gas Heater”.
- c. For the heater HTR3, the number of catalytic heaters has been removed from the emission unit description.
- d. The table of Active R13, R14, and R19 Permits has been updated with R13-3294C which was issued on July 9, 2024.

2. Section 3.0. – Facility-Wide Requirements

- a. In Condition 3.7.2.b., the permit shield determination for 40 C.F.R. Part 60 Subpart OOOO has been revised. Previously, it was determined that the compressors associated with the turbines T1 to T3 were not subject to Subpart OOOO based on the 2018 installation date of the turbines. However, the permittee has reported that the purchase order date of the turbines was March 3, 2015. Therefore, in accordance with the definition of “commenced” in 40 C.F.R. §60.2, construction of the turbines and associated compressors commenced within the applicability dates of Subpart OOOO. The permit shield determination for Subpart OOOO has been updated as follows:
 - i. The permit shield now specifies that only the pipeline liquids tank (PL Tank) is not subject to Subpart OOOO due to the applicability date specified in §60.5365.
 - ii. The permit shield has been updated to include that the centrifugal compressors driven by the turbines T1 to T3 use dry seals and, therefore, are not subject to Subpart OOOO because a centrifugal compressor affected facility under Subpart OOOO is a single centrifugal compressor using wet seals, per §60.5365(b).

3. Section 4.0. – Turbines

- a. The authority of Condition 4.1.1. has been updated in accordance with the changes made in R13-3294C.
- b. Condition 4.1.4. has been removed from the operating permit. The underlying requirement for this condition (Condition 5.1.4. in R13-3294B) was removed from R13-3294C as the turbines are permitted to operate 8,760 hours per year and, therefore, limiting the annual natural gas throughput is unnecessary.
- c. Conditions 4.1.5. through 4.1.7. of the operating permit were renumbered to 4.1.4. through 4.1.6., respectively, and the authority of each condition has been updated in accordance with the changes made in R13-3294C.
- d. In Condition 4.3.2., the schedule for the CO performance testing of the turbines has been revised in accordance with Condition 5.3.2. of R13-3294C. Performance tests to demonstrate compliance with the CO emissions limits in Conditions 4.1.2. through 4.1.3. of the operating permit must be conducted as requested by the Secretary and as outlined in Condition 3.3.1. of the operating permit.
- e. The reference to Condition 4.1.4. has been removed from Condition 4.4.1. of the operating permit.
- f. In Condition 4.4.4., the reference to Condition 4.1.7. has been updated to Condition 4.1.6. due to the changes in the numbering of conditions in Section 4.1. of the operating permit.

4. Section 6.0. – Heaters

- a. In Condition 6.1.1., the emission unit descriptions in the table of the maximum design heat input for the heaters have been updated as follows:
 - i. The descriptions of HTR1 and HTR2 have each been revised to “Fuel Gas Heater”.
 - ii. The number of catalytic heaters has been removed from the description for HTR3.

5. The requirements included in Section 7.0. have been removed from the operating permit with this minor modification. Section 7.0. previously contained 40 C.F.R. Part 60 Subpart OOOOa standards for fugitive emissions components (§60.5397a) and storage tanks (§60.5365(e) and §60.5410a(h)).
 - a. The requirements for fugitive emission components under §60.5397a are inapplicable to the Elk River Compressor Station and, therefore, these standards (Condition 7.1.1.) as well as the associated monitoring (Conditions 7.1.2. and 7.1.3.), recordkeeping (Condition 7.4.1.), and reporting (Condition 7.5.1.) requirements have been removed from the operating permit.

Subpart OOOOa applies to the affected facilities listed in §60.5365a for which construction commenced between September 18, 2015 and December 6, 2022. Although the turbines T1 to T3 which drive the compressors at the facility were installed in 2018, the permittee has reported that the purchase order date of the turbines was March 3, 2015. Therefore, in accordance with the definition of “commenced” in 40 C.F.R. §60.2, construction of the turbines and associated compressors commenced prior to the applicability dates of Subpart OOOOa and, in accordance with §60.5365a(j), the requirements for the collection of fugitive emissions components at a compressor station have not been triggered.

- b. Condition 7.2.1. was included in the initial operating permit (R30-03900670-2020) and contained requirements from §60.5365a(e) and §60.5410a(h). Under this condition, the permittee was required to calculate the potential VOC emissions of the storage tank PL to determine if the tank is an affected source under Subpart OOOOa. However, in the Subpart OOOOa annual report submitted on December 20, 2019, the permittee reported that the Elk River Compressor Station did not operate any tanks with potential VOC emissions greater than 6 tpy. Therefore, storage tank PL is not an affected facility under Subpart OOOOa, and the requirements of §60.5410a(h) are inapplicable.

Non-Applicability Determinations

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

Not Applicable.

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.

Ending Date: Not applicable.

Point of Contact

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

Sarah Barron
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
304/414-1915
sarah.k.barron@wv.gov

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)

The following boilerplate changes have been made to the permit. These changes to the boilerplate became effective September 23, 2024.

- **Condition 3.1.6.** – Revised the citation to refer to the current version of the WV Code.
- **Condition 3.3.1.** – Revised the citation to refer to the current version of the WV Code.
- **Condition 3.3.1.b.** – Added “If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit shall be revised in accordance with 45CSR§30-6.4 or 45CSR§30-6.5 as applicable.”