

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 February 4, 2020.

Permit Number: **R30-01700163-2020 (MM01)**
Application Received: **March 1, 2021**
Plant Identification Number: **03-54-017-00163**
Permittee: **Antero Midstream LLC**
Facility Name: **South Canton Compressor Station**
Mailing Address: **1615 Wynkoop Street, Denver, CO 80202**

Permit Action Number: *MM01* Revised: *June 23, 2021*

Physical Location:	West Union, Doddridge County, West Virginia
UTM Coordinates:	4353.883 km Easting • 516.949 km Northing • Zone 17
Directions:	From the intersection of U.S. 50 and WV-18 near West Union, WV, north on WV-18 for 0.5 miles. Take a right on Main Street and then a left on Davis Street. In 0.2 miles at the round-a-about, keep to the right stay on Davis Street. After 0.2 miles, turn right onto WV-18/Sistersville Pike and drive for 5.1 miles. Turn right on Nutter Fork (Rte 28) and Drive 0.8 miles. The facility driveway will be on the left.

Facility Description

The South Canton Compressor Station separates, compresses, and dries gas off the inlet pipeline stream. The station includes twelve (12) compressor engines with oxidation catalysts, one (1) generator, three (3) 150 MMscfd dehydrators with three (3) reboilers and three (3) flash tanks, three (3) 400-bbl condensate tanks, three (3) 400-bbl produced water tanks, one (1) 500-bbl settling tank, one (1) 0.5 MMBtu/hr fuel conditioning heater, one (1) flare, two (2) vapor recovery units (VRU), liquid load out operations, fugitive component emissions, and six (6) auxiliary tanks.

Emissions Summary

This modification results in the following emission changes:

Pollutants	Change in PTE (TPY)
Carbon Monoxide (CO)	3.24
Nitrogen Oxides (NO _x)	68.08
Particulate Matter (PM ₁₀ /PM _{2.5})	0.63
Sulfur Dioxide (SO ₂)	0.03
Volatile Organic Compounds (VOC)	1.04*
Formaldehyde	0.41
Total HAPs	3.85

* If calculating the change in PTE for VOC emissions from the increase in the R13-3354D permit limits (i.e., 6.52 to 6.97 tpy for each engine and 7.18 to 7.46 tpy for the storage tank battery) and the increase from the low and high pressure pig venting and vessel cleaning/maintenance venting, the total increase in the VOC emissions would be equal to 6.84 tpy yielding a total facility PTE of 162.50 tpy. However, in the application for the initial Title V permit, the total facility PTE for VOC emissions was erroneously shown as 155.66 tpy. The application for the initial Title V permit had 7.00 (should have been 6.52) tpy of VOC for each engine and hence, showed the total facility PTE as 155.66 tpy of VOC instead of 149.86 tpy. Therefore, the change in PTE for VOC emissions for this permitting action is listed as 1.04 tpy yielding a total facility PTE of 156.70 tpy. This total facility PTE value is consistent with the R13-3354D/R30-01700163-2020 (MM01) application and the R3-3354D VOC permit limits.

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 156.70 tons per year of VOC and 164.85 tons per year of NO_x. Due to this facility's potential to emit over 100 tons per year of a criteria pollutant, Antero Midstream LLC's South Canton 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.

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

Federal and State:

45CSR13

Permits For Construction, Modification, Relocation And Operation Of Stationary Sources Of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, And Procedures For Evaluation

45CSR30

Requirements For Operating Permits

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	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-3354D	April 13, 2021	

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 incorporates revisions associated with the Modification Permit R13-3354D to:

- Increase the horsepower of the compressor engines (C-100 – C-1200) to 2,675 hp and increase the NOx emission rate to 0.5 grams per brake horsepower-hour (g/bhp-hr). The engine horsepower is increased through the use of a chip that advances ignition timing to allow more air or fuel to increase horsepower.
- Update low and high pressure pig venting per event volume to the venting episodes emissions source (VENT1).
- Add vessel cleaning/maintenance emissions to the venting episodes emissions source (VENT1).
- Update the SIC code to 4922 and corresponding NAICS code to 486210.

Substantial changes to R30-01700163-2020 consist of the following:

- 1) Updated SIC Code on the facility information page (Page 1 of the permit)
- 2) **Section 1.1. Emission Units Table:**
 - Revised the design capacities for engines C-100 through C-1200.
 - Revised the horsepower rating for the compressor engines in the "Control Devices" Table.
- 3) **Section 1.2. Active R13, R14, and R19 Permits:** The table has been updated to the latest version of R13-3354.
- 4) **Condition 4.1.1.** – This condition has been revised to include the revised requirements of condition 5.1.1. in R13-3354D.
- 5) **Condition 7.1.4.** – This condition has been revised to include the revised requirements of condition 8.1.4. in R13-3354D.
- 6) **Condition 13.1.3.** – This condition has been revised to include the revised requirements of condition 14.1.3. in R13-3354D.
- 7) **Condition 13.1.4.** – This condition has been revised to include the revised requirements of condition 14.1.4. in R13-3354D.

- There exists a typographical error in condition 14.1.4. of permit R13-3354D in which the increased estimated flow is per “event” and should be per “year” as similarly revised in condition 14.1.3. of permit R13-3354D. In discussions with the R13-3354D permit writer the typographical error was confirmed. Furthermore, in the permit R13-3354D evaluation, under “CHANGES TO R13-3354D” it is stated for Condition 14.1.4. “Modify high pressure pigging event annual scf.”
- 8) **Condition 13.1.5.** – This condition has been added as a new applicable requirement from permit R13-3354D.
- 9) **Conditions 13.4.2. and 13.5.1.** – Revised to include the new permit condition 13.1.5.

Non-Applicability Determinations

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

None.

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:

Frederick Tipane
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
304/926-0499 ext. 41910
frederick.tipane@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)

Not applicable.