

Fact Sheet



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

Permit Number: **R30-05100157-2021**
Application Received: **October 22, 2020**
Plant Identification Number: **051-00157**
Permittee: **Williams Ohio Valley Midstream LLC**
Facility Name: **Oak Grove Gas Plant**
Mailing Address: **100 Teletech Drive, Suite 2; Moundsville, WV 26041**

Physical Location: Moundsville, Marshall County, West Virginia
UTM Coordinates: 525.9 km Easting • 4,414.1 km Northing • Zone 17
Directions: From Lafayette Ave in Moundsville, head East onto 12th St ~ 1.1 miles.
Continue onto Fork Ridge Rd ~5.4 miles. Site entrance is on the left.

Facility Description

This natural gas processing facility is designed to process 600 million standard cubic feet per day (mmscfd) of incoming natural gas. The facility will receive natural gas from upstream production wells and send it to one (1) of three (3) cryogenic process trains (TXP-1, TXP-2, and TXP-3) where ethane (C₂H₆), propane (C₃H₈), and natural gas liquids (NGLs) are removed leaving residue gas. The residue gas is sent to a natural gas transmission pipeline or can be used as fuel gas on site. The ethane, propane, and NGLs are sent to the deethanizer where ethane is removed. This facility operates under SIC Code 1321.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2020 Actual Emissions
Carbon Monoxide (CO)	196.55	71.38
Nitrogen Oxides (NO _x)	127.93	48.04
Particulate Matter (PM _{2.5})	11.18	3.34
Particulate Matter (PM ₁₀)	11.18	3.34
Total Particulate Matter (TSP)	11.18	3.34
Sulfur Dioxide (SO ₂)	0.79	0.33
Volatile Organic Compounds (VOC)	132.03	47.67
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants	Potential Emissions	2020 Actual Emissions
Total HAPs	16.13	4.56

All individual HAPs are below 10 TPY.

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

Title V Program Applicability Basis

This facility has the potential to emit 196.55 TPY of CO, 127.93 TPY of NO_x, and 132.03 TPY of VOC. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Williams Ohio Valley Midstream 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.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Particulate air pollution from combustion of fuel in indirect heat exchangers.
	45CSR6	Open burning prohibited.
	45CSR10	Sulfur oxide emissions.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	NSR permitting.
	45CSR16	New Stationary Sources
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	45CSR34	Emissions standards for HAPs

	40 C.F.R. 60, Subpart Dc	Standards of performance for small industrial-commercial-institutional steam generating units
	40 C.F.R. 60, Subpart JJJJ	Standards of performance for stationary spark ignition internal combustion engines
	40 C.F.R. 60, Subpart OOOO	Standards of performance for crude oil and natural gas production, transmission and distribution
	40 C.F.R. 60, Subpart OOOOa	Standards of performance for crude oil and natural gas facilities for which construction, modification or reconstruction commenced after September 18, 2015
	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.

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>)
R13-3070C (Oak Grove)	October 17, 2019	
R13-3289B (Francis)	October 12, 2017	

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

1. The following revisions were made to the previous permit (after it was issued on April 26, 2016):
 - MM01 (issued August 2, 2016) - an addition of a natural gas compressor station, the Francis Compressor Station, located at the inlet of the existing Oak Grove Gas Plant (covered by permit R13-3289);
 - MM02 (issued May 2, 2017) - corrected two conditions to reference 40 C.F.R. 60 Subpart OOOOa instead of Subpart OOOO (covered by permit R13-3289A);
 - MM03 and MM04 (issued February 6, 2018) - revised the fugitive emissions from piping and component leaks FUG-G, FUG-L, FUG-M, and FUG-3 (covered by permits R13-3289B and R13-3070B);

- MM05 (issued January 6, 2020) - increased the VOC emissions from the amine unit still vent (covered by permit R13-3070C).
- 2. Emission Units Table 1.1 – revised to add modification year for several emission units, and better describe what is included under emission unit FUG-3 (emission point 25E).
- 3. Permit Shield condition 3.7.2.a was updated, and former condition 3.7.2.b (45CSR19) was deleted to reflect the change of the status of entire state of WV to “attainment”; condition 3.7.2.f (CAM) was revised to add “10 / 25 TPY for individual / total HAPs” applicability criteria overlooked in the past.
- 4. Sections 4, 6, 7, and 11 – for clarification purposes, references to “this section”, “this part” and “this subpart” were replaced with the actual section, part, or subpart identification.
- 5. Conditions 6.1.8.b.2 and 3 (40 CFR §§60.4243(d)(2)(ii) and (iii)) - removed because these sections of the rule were vacated.
- 6. Conditions 7.1.6 and 7.5.2(c)(i) and (ii) - updated according to the latest version of the 40 CFR 60 Subpart OOOO.
- 7. Condition 11.1.4(a) – revised a phrase “Attachment N of Permit Application R13-3289” to “Attachment N of Permit Application R13-3289B” for accuracy.
- 8. Condition 5.3.1 – periodic visible emissions monitoring was added (see Response to Comments).

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following (condition 3.7.2):

- a. **45CSR14—Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration:** The Oak Grove Natural Gas Processing Facility is located in Marshall County, WV. Marshall County is classified as "attainment" with all National Ambient Air Quality Standards (NAAQS). Therefore, applicability to major New Source Review (NSR) for all pollutants is determined under 45CSR14.

As the facility is not a "listed source" under 45CSR§14-2.43, the individual major source applicability threshold for all criteria pollutants is 250 TPY. The facility-wide PTE of the Oak Grove Natural Gas Processing Facility is less than 250 TPY for all criteria pollutants. Therefore, the facility is not defined as a "major stationary source" under 45CSR14.

It is also important to note that the facility does not contain a “nested” major stationary source - in this case a secondary listed source: “Fossil Fuel Boilers (or combinations thereof) Totaling More than 250 Million Btu/hour Heat Input.” All the natural-gas fired heaters would contribute to this 250 mmBtu/hr threshold. However, the aggregate MDHI of all the heaters is 223.36 mmBtu/hr. Therefore, no “nested” source is located at the Oak Grove Natural Gas Processing Facility.

- b. **40 CFR 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:** Subpart Kb of 40 CFR 60 is the NSPS for storage tanks containing Volatile Organic Liquids (VOLs) for which construction commenced after July 23, 1984. The Subpart applies to storage vessels used to store volatile organic liquids with a capacity greater than or equal to 75 m³ (19,813 gallons).

None of the tanks at this facility have a capacity greater than 75 m³, therefore this subpart does not apply.

- c. **40CFR 60 Subpart KKK—Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants:** 40CFR60 Subpart KKK applies to onshore natural gas processing plants that commenced construction after January 20, 1984 and on or before August 23, 2011. The Oak Grove Natural Gas Processing Facility was constructed after August 23, 2011, therefore this subpart does not apply.
- d. **40 CFR 60, Subpart OOOO—Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution:** The storage tanks located at the Oak Grove Natural Gas Processing Facility are exempt from Subpart OOOO as each of these tanks have potential VOC emissions less than 6 tons/year.
- e. **40 CFR 64—Compliance Assurance Monitoring:** Since there are no pollutant-specific emission units at this facility with pre-control emissions greater than 100 TPY of regulated air pollutants and 10 / 25 TPY of individual / total HAPs that use a control device to achieve compliance with an emission limitation or standard, CAM does 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: April 13, 2021
Ending Date: May 13, 2021

Point of Contact

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

Natalya V. Chertkovsky-Veselova
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
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)

On May 13, 2021 the following comment was received by email from Ms. Gwedolyn K. Supplee (EPA, Region III, Permit Branch):

“While the facility was required to conduct a one-time Method 22 test to demonstrate compliance with the flare visible emissions limit within one (1) year of R13-3070 permit issuance in accordance with Permit Condition No. 5.3.1, the permit doesn’t require any other periodic monitoring of the visible emissions from the flare in order to assure compliance with the emissions limit in Permit Condition No. 5.1.3.b. WVDEP should add periodic monitoring for the presence of visible emissions from FL-1 in order to assure compliance with the emissions limit.”

DAQ agrees that the permit is lacking periodic visible emissions monitoring to demonstrate compliance with the flare “no visible emissions” limit (as per condition 5.1.3.b). In order to fill this gap, the following periodic monitoring language was added (underlined) to the existing requirement 5.3.1:

“In order to demonstrate compliance with the flare opacity requirements of 5.1.3.b the permittee shall conduct a Method 22 opacity test for at least two hours. This test shall demonstrate no visible emissions are observed for more than a total of 5 minutes during any 2 consecutive hour period using 40CFR60 Appendix A Method 22. The permittee shall conduct this test within one (1) year of R13-3070 permit issuance or initial startup whichever is later. The visible emission checks shall determine the presence or absence of visible emissions. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 CFR part 60, appendix A, Method 22 or from the lecture portion of 40 CFR part 60, appendix A, Method 9 certification course.

In order to continue to demonstrate compliance with the flare opacity requirements of 5.1.3.b the permittee shall conduct visible emission checks at least once per calendar month with a maximum of forty-five (45) days between consecutive readings. These checks shall be performed at flare emission point for a sufficient time interval, but no less than one minute, to determine if any visible emissions are present. Visible emission checks shall be performed during periods of normal facility operation and appropriate weather conditions.

If during these checks or at any other time visible emissions are observed, compliance shall be determined by conducting opacity tests in accordance with 40 CFR 60, Appendix A, Method 22. This test shall be conducted for at least 2 hours and shall demonstrate no visible emissions are observed for more than a total of 5 minutes during any 2 consecutive hour period.

[45CSR13, R13-3070, 6.3.1; 45CSR§30-5.1.c]”