

Fact Sheet



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

Permit Number: **R30-05100141-2021**

Application Received: **May 7, 2020**

Plant Identification Number: **03-054-05100141**

Permittee: **Williams Ohio Valley Midstream LLC**

Facility Name: **Moundsville Fractionation Plant**

Mailing Address: **100 Teletech Drive, Suite 2, Moundsville, WV 26041**

Physical Location:	Moundsville, Marshall County, West Virginia
UTM Coordinates:	517.35 km Easting • 4,418.11 km Northing • Zone 17
Directions:	From Moundsville, take State WV-2/Lafayette Avenue South, then West, approximately 2 miles. Site is on the right, at the site of the former Olin Facility in Round Bottom.

Facility Description

The permittee currently operates a 42,500 barrel per day (bpd) natural gas liquids (NGLs) fractionation facility and loading terminal located along State Route 2 in Marshall County approximately two (2) miles south of Moundsville. The process and equipment associated with this operation are referred to as Fractionation Train 1 (Frac 1) and Fractionation Train 2 (Frac 2) with combined capacity of 58,200 bpd. The facility is characterized by NAICS and SIC codes 211112 and 1321, respectively.

The Moundsville Fractionation Plant receives NGL and processes it through a series of distillation processes (de-propanizer and de-butanizer towers) to generate three (3) products: propane, mixed butanes and heavier weight organics identified as natural gasoline. The fractionation plant consists of a series of distillation processes where propane and then mixed butanes are removed from the NGL. The remaining liquid is classified as "natural gasoline". The incoming NGL is accumulated in a series of pressure vessels. The primary purpose of these tanks is to act as a buffer for variations in the rate of NGL receipt to ensure a steady flow rate through the process and provide plant storage. Frac 2 is also capable of loading either NGL as received or all of the products into rail cars and trucks for shipment to markets through the existing and new rail and truck loading equipment. The three (3) products will be accumulated in a series of pressure vessels.

There are two (2) 89.85 MMBtu/hr and one (1) 45.54 MMBtu/hr natural gas fired heaters that will heat fluid that is used at various locations throughout the facility to control the temperature within certain process equipment.

This renewal permit also includes changes from minor modification (MM02) which incorporates changes from R13-2892H (issued 8/24/20). R13-2892H updated the fugitive emission counts for the facility and revised the NO_x, CO, VOC, and HAP emission limits for the Flare (5S).

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2019 Actual Emissions
Carbon Monoxide (CO)	130.94	67.72
Nitrogen Oxides (NO _x)	76.41	39.19
Particulate Matter (PM _{2.5})	5.74	3.00
Particulate Matter (PM ₁₀)	5.74	3.00
Total Particulate Matter (TSP)	5.74	3.00
Sulfur Dioxide (SO ₂)	0.45	0.24
Volatile Organic Compounds (VOC)	205.41	67.88

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2019 Actual Emissions
Benzene	0.17	0.05
Ethylbenzene	0.03	0.02
Formaldehyde (HCHO)	0.07	0.03
n-Hexane	10.11	3.59
Toluene	0.28	0.14
2,2,4 - Trimethylpentane	0.65	0.10
Xylenes	0.34 ¹	0.46 ¹
Other HAP	0.02	0.01
Total HAP	11.67	4.40

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

¹Xylene PTE is based on a new extended gas analysis which had a lower xylene concentration than the previous gas analysis. The 2019 actual xylene emissions are based on the older gas analysis which had the higher xylene concentration.

Title V Program Applicability Basis

This facility has the potential to emit 130.94 tpy of CO, 205.41 tpy of VOC, and 10.11 tpy of n-Hexane. Due to this facility's potential to emit over 100 tons per year of criteria pollutant and over ten tons per year of a single hazardous air pollutant, Williams Ohio Valley Midstream's Moundsville Fractionation Plant 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	Control of PM from Indirect Heat Exchangers
	45CSR2A	Testing, Monitoring, Recordkeeping and Reporting Requirements under 45CSR2
	45CSR6	Open burning prohibited.
	45CSR10	Control of Air Pollution from Sulfur Oxides
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Permits for construction/modification
	45CSR16	Standards of performance pursuant to 40 C.F.R. Part 60
	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	Emission standards for HAPs
	40 C.F.R. 60 Subpart Dc	NSPS for small steam generating units
	40 C.F.R. 60 Subpart Kb	NSPS for Volatile Organic Liquid Storage Vessels after July 23, 1984
	40 C.F.R. 60 Subpart JJJJ	NSPS for Spark Ignition IC Engines
	40 C.F.R. 60 Subpart OOOO	NSPS for Crude Oil and Natural Gas Production, Transmission, and Distribution
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. 63, Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants: Industrial / Commercial / Institutional Boilers and Process Heaters
	40 C.F.R. Part 63 Subpart ZZZZ	NESHAPs-MACT for RICE
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.
	45CSR17	Prevention and Control of Fugitive PM

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)
R13-2892H	August 24, 2020	
G60-C069	March 31, 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

R13-2892H was submitted to update the fugitive emission count/emission rate as a result of a recent Leak Detection and Repair (LDAR) audit. The total number of processing piping components (1S/FUG) have increased from 34,924 to 40,334 units. However, the fugitive VOC potential to emit has decreased from 67.13 tons per year to 62.59 tons per year. The decrease in fugitive VOC PTE is due to removal of emissions from pressure relief devices associated with the closed vent system as these components would not have emissions to the atmosphere.

Additionally, because of an updated product extended analysis, the process flare emission limits were decreased.

The minor modification (MM02) includes the following changes (from R13-2892H) in this permit.

- Change in potential emissions due to the modification is as follows:

Pollutant	Change in Potential Emissions (+ or -), TPY
Nitrogen Oxides	-2.48
Carbon Monoxide	-4.95
VOCs	-9.16
Particulate Matter-10	0
Sulfur Dioxide	0
Total HAPs	-1.72

- Permit Conditions 5.1.2 (annual emissions of NOx and CO for Flare (5S)), 5.1.3 (emission limits of VOC and HAPs for Flare (5S)) and 6.1.3 (fugitive VOC emissions from equipment leaks) were updated.
- Section 7.0 - requirements of Class II General Permit G60-D and a General Permit Registration G60-C069 (issued on March 31, 2015) for the Emergency Generator EG-1 were included with the Section 7.0 of the Title V permit during this permit renewal process. In the previous Title V permit, the requirements of General Permit G60-C were incorporated by reference within Section 7.0 and General Permit G60-C was included as Appendix A. These requirements have been incorporated directly into Section 7.0 and the general permit will no longer be included as an Appendix. Additionally, Class II General Permit G60-C was superseded and replaced by Class II General Permit G60-D. Therefore, all the general permit requirements, included in this Title V permit, are based on the latest version of the general permit (G60-D). This change did not affect 40 C.F.R. 60 Subpart JJJJ applicable requirements.

Compliance with the applicable requirements of 40 C.F.R. 60 Subpart JJJJ in Section 7 of this permit ensures compliance with 40 C.F.R. 63 Subpart ZZZZ in accordance with 40 C.F.R. §§63.6590(c) and (c)(6).

Non-Applicability Determinations

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

- a. **45CSR21 – Control of VOC Emissions.** The facility is not located in Putnam, Kanawha, Cabell, Wayne, or Wood counties (45CSR§21-1.1.); therefore, this rule is not applicable.
- b. **45CSR27 – Control of TAP Emissions.** This rule applies to chemical processing units (45CSR§27-3.1.). The definition of “Chemical Processing Unit” excludes 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 (45CSR§27-2.4.). Based upon the information provided in the application and in August 31, 2015, technical correspondence from the permittee, the facility does not utilize an assembly of reactors, tanks, distillation columns, heat exchangers, vaporizers, compressors, dryers, decanters, and/or other equipment used to treat, store, manufacture, or use toxic air pollutants. Further, there are no “chemical processing units” at the Moundsville Fractionation Plant because the equipment does not produce or contact materials containing more than 5% benzene by weight. For these reasons, 45CSR27 is not applicable to the Moundsville Fractionation Plant.
- c. **40 C.F.R. 60 Subpart D – Standards of Performance for Fossil-Fuel-Fired Steam Generators.** There is no fossil-fuel-fired steam generating unit greater than 250 MMBtu/hr (40 C.F.R. §60.40(a)(1)) at the site; therefore, this regulation is not applicable.
- d. **40 C.F.R. 60 Subpart Da – Standards of Performance for Electric Utility Steam Generating Units.** There is no electric utility steam generating unit greater than 250 MMBtu/hr (40 C.F.R. §60.40Da(a)(1)) at the site; therefore, this regulation is not applicable.
- e. **40 C.F.R. 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.** There is no steam generating unit greater than 100 MMBtu/hr (40 C.F.R. §60.40b(a)) at the site; therefore, this regulation is not applicable.
- f. **40 C.F.R. 60 Subpart K – Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978.** There is no tank at the facility that was constructed before May 19, 1978 (40 C.F.R. §60.110(c)); therefore, this regulation is not applicable.
- g. **40 C.F.R. 60 Subpart Ka – Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984.** There is no tank at the facility that was constructed before July 23, 1984 (40 C.F.R. §60.110a(a)); therefore, this regulation is not applicable.
- h. **40 C.F.R. 60 Subpart GG – Standards of Performance for Stationary Gas Turbines.** There is no stationary gas turbine at the facility (40 C.F.R. §60.330(a)); therefore, this regulation is not applicable.
- i. **40 C.F.R. 60 Subpart KKK – Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants.** 40 C.F.R. 60 Subpart KKK applies to onshore natural gas processing plants that commenced construction after January 20, 1984 and on or before August 23, 2011. The modifications to the Moundsville Fractionation Plant approved in permits R13-2892C and R13-2892D occurred after August 23, 2011. The permittee will be required to meet the LDAR requirements of Subpart OOOO for natural gas processing facilities. Therefore, the permittee will no longer be subject to 40 C.F.R. 60 Subpart KKK and will be subject to 40 C.F.R. 60 Subpart OOOO.

- j. **40 C.F.R. 60 Subpart LLL – Standards of Performance for SO₂ Emissions From Onshore Natural Gas Processing for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011.** There is no sweetening unit at the facility (40 C.F.R. §60.640(a)); therefore, this regulation is not applicable.
- k. **40 C.F.R. 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.** There is no compression ignition engine at the facility (40 C.F.R. §60.4200(a)); therefore, this regulation is not applicable.
- l. **40 C.F.R. 60 Subpart KKKK – Standards of Performance for Stationary Combustion Turbines.** There is no stationary combustion turbine at the facility (40 C.F.R. §60.4305(a)); therefore, this regulation is not applicable.
- m. **40 C.F.R. 63 Subpart HHH – National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities.** There are no natural gas transmission and storage facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final end user. Therefore, this regulation is not applicable.
- n. **40 C.F.R. 63 Subpart YYYY – National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines.** There is no stationary combustion turbine at the facility (40 C.F.R. §§63.6080(a) and 63.6085); therefore, this regulation is not applicable.
- o. **40 C.F.R. 63 Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources.** This facility is a major source of HAPs; therefore, this regulation is not applicable.
- p. **40 C.F.R. Part 64 – Compliance Assurance Monitoring (CAM).** This facility was evaluated during the initial permit for 40C.F.R.64 CAM applicability. Although there are potential pollutant specific emission units subject to an emissions limitation, and a control device (i.e., Process Flare FL-02) is used to achieve compliance, the potential pre-control emissions of each pollutant from the source do not exceed the respective major source thresholds (40 C.F.R. §64.2(a)(3)). Therefore, CAM is not applicable. There were no modifications to the facility that would have triggered a CAM review subsequent to the initial permit, therefore a CAM evaluation was not made.

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: November 24, 2020
Ending Date: December 28, 2020

Point of Contact

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

Beena Modi
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 41283
Beena.j.modi@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)

None