

Fact Sheet



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

Permit Number: **R30-05100127-2021**
Application Received: **March 18, 2020**
Plant Identification Number: **03-54-051-00127**
Permittee: **Williams Ohio Valley Midstream LLC**
Facility Name: **Fort Beeler Gas Processing Plant**
Mailing Address: **100 Teletech Drive, Suite 2, Moundsville, WV 26041**

Physical Location: Cameron, Marshall County, West Virginia
UTM Coordinates: 535.00 km Easting • 4,414.33 km Northing • Zone 17
Directions: From Main Street in Cameron head north on US-250/Waynesburg Pike
~3.7 miles. Turn left to continue on US-250 ~2.5 miles. Turn left onto
access road ~0.2 mile. Entrance to site is straight ahead.

Facility Description

The **Fort Beeler Gas Processing Plant** currently receives natural gas from local production wells and processes this gas through cryogenic processes, removing natural gas liquids from the inlet gas. The facility has the capacity to process 520 million standard cubic feet per day (mmscfd) of raw natural gas through one (1) 120 mmscfd cryogenic plant (Plant 1), and two (2) 200 mmscfd cryogenic plants (Plant 2 and Plant 3).

The co-located **Groves Dehydration Station** utilizes one 5.0 million standard cubic feet per day (mmscfd) triethylene glycol (TEG) dehydrator. The dehydrator is comprised of a contactor/absorber tower (no vented emissions), a flash tank, and a regenerator/still vent. The dehydrator removes water vapor from the inlet wet gas stream to meet pipeline specifications. Other equipment is: one (1) 0.20 MMBTU/hr glycol (TEG) reboiler (BLR-01) to supply heat for the TEG regenerator/still vent, as well as several comparatively small tanks with insignificant emissions for glycol and methanol storage.

Emissions Summary

Plantwide Emissions Summary¹ [Tons per Year]		
Regulated Pollutants	Potential Emissions²	2019 Actual Emissions
Carbon Monoxide (CO)	100.23	59.06
Nitrogen Oxides (NO _x)	97.81	68.58
Particulate Matter (PM _{2.5})	7.49	0.65
Particulate Matter (PM ₁₀)	7.49	0.65
Total Particulate Matter (TSP)	7.49	4.68
Sulfur Dioxide (SO ₂)	0.47	0.36
Volatile Organic Compounds (VOC)	166.80	65.85

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions²	2019 Actual Emissions
Acetaldehyde	1.53	1.02
Acrolein	0.97	0.66
Benzene	0.77	0.62
Ethylbenzene	0.31	0.51
Formaldehyde (HCHO)	4.57	3.04
n-Hexane	4.61	2.88
Methanol (MeOH)	0.54	0.29
Toluene	1.79	0.86
Xylenes	4.75	1.41
Other HAP	0.22	0.04
Total HAP	20.06	9.33

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

¹Plantwide potential emissions includes Fort Beeler Processing Plant and Groves Dehydration Station.

²The changes in in PTE's are attributed to the aggregated changes from incorporation of minor modification MM04 (see discussion below), previous minor modifications that incorporated changes to Permit R13-2826 which include but are not limited to updated gas analyses data, improved emission estimating protocols for HAP speciation, reduced "safety margin" of gas VOC/HAP content and the removal of an old process flare (FL-01).

Title V Program Applicability Basis

This facility has the potential to emit 166.80 tpy of VOC and 100.23 tpy of CO. Due to this facility's potential to emit over 100 tons per year of a criteria pollutant, Williams Ohio Valley Midstream LLC's Fort Beeler Gas Processing 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	To Prevent And Control Particulate Air Pollution From Combustion Of Fuel In Indirect Heat Exchangers
45CSR2A	Testing, Monitoring, Recordkeeping and Reporting Requirements under 45CSR2
45CSR6	Control Of Air Pollution From Combustion Of Refuse.
45CSR10	To Prevent And Control Air Pollution From The Emission Of Sulfur Oxides
45CSR11	Standby Plans For Emergency Episodes.
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
45CSR16	Standards Of Performance For 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	Emission Standards for Hazardous Air Pollutants
40 C.F.R. Part 60, Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units
40 C.F.R. Part 60, Subpart KKK	Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011
40 C.F.R. Part 60, Subpart JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
40 C.F.R. Part 60, Subpart OOOO	Standards of Performance for Crude Oil and Natural Gas Production, Transmission and Distribution for which Construction, Modification or Reconstruction Commenced after August 23, 2011, and on or before September 18, 2015
40 C.F.R. Part 61	Asbestos inspection and removal
40 C.F.R. Part 63, Subpart HH	National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities
40 C.F.R. Part 63, Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 C.F.R. Part 82, Subpart F	Ozone depleting substances

State Only:

45CSR4	No objectionable odors.
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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)
R13-2826N Fort Beeler Gas Processing Plant	October 7, 2020	
R13-3212A Groves Dehydration Station	June 7, 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

This is a renewal of the Title V permit, which was issued on October 9, 2015 and modified on October 3, 2017, February 24, 2020 and June 23, 2020. This renewal permit incorporates minor modification MM04 associated with R13-2826N issued on October 7, 2020. MM04 incorporates the changes made in the Class II Administrative Update to the permit R13-2826M to replace the existing 225 bhp Caterpillar G342NA compressor engine (CE-01) with an 800 bhp Caterpillar G399TA compressor engine (CE-06) equipped with non-selective catalytic reduction (NSCR). Substantial changes to the most recent version of the Title V Permit consist of the following:

1) Title V Boilerplate changes

- **Conditions 3.5.3., 3.5.5. and 3.5.6.** - These conditions were revised to require electronic submittal of the Title V compliance certifications (annual and semi-annual), self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols to the WV DAQ.

2) Section 1.1. Emission Units Table:

- Removed compressor engine CE-01 and added the new compressor engine CE-06.
- Updated the "Year Installed" for "SSM" and "RPC" associated with the new compressor engine CE-06.
- Updated the "Year Installed" for "FL-02" and "FUG" associated with previous minor modifications but not previously updated.
- Added "Design Capacity" for "T-24" and "T-25" not previously included.

- 3) **Section 1.2. Active R13, R14, and R19 Permits:** The table has been updated to the latest versions of the Rule 13 permits.
 - R13-2826N issued on October 7, 2020 – The updated requirements of this permit are associated with minor modification MM04 as described above and have been included in Section 4.0 of the Title V renewal permit.
 - R13-3212A issued on June 7, 2017 – The table has been updated to the latest version of this permit. However, there were no changes to the applicable requirements. Therefore, there were no changes to the applicable requirements in the Title V renewal permit.
- 4) **Condition 3.7.2.** – As requested by the permittee, added non-applicable permit shield for 40 CFR 60 Subparts VV, VVa, GGG and GGGa
- 5) **Section 4.0. description** – Revised to reflect the removal of CE-01 and the addition of CE-06.
- 6) **Section 4.1. Requirements** – The requirements for CE-01 have been removed and the requirements for CE-06 have been added in Section 4.1. of the permit.
 - The requirements for CE-01 have been replaced with the requirements for CE-06 in conditions 4.1.1. and 4.1.2.
 - The applicability reference for CE-01 has been deleted and CE-06 has been added in conditions 4.1.9., 4.1.13., 4.1.15., 4.1.16. and 4.1.17. CE-06 has been added to conditions 4.1.14., 4.1.22. of the renewal permit.
 - Condition 4.1.22. of the current permit contained requirements for CE-01 and therefore has been deleted. The subsequent conditions have been renumbered.
- 7) **Section 4.2. Requirements** – The requirements for CE-01 have been removed and the requirements for CE-06 have been added in Section 4.2. of the permit.
 - The 01-NSCR has been replaced with 03-NSCR in condition 4.2.1.
 - Condition 4.2.2. of the current permit contained requirements for CE-01 and therefore has been deleted. The subsequent conditions have been renumbered.
 - The applicability reference for CE-01 has been deleted and CE-06 has been added in conditions 4.2.2. and 4.2.3. of the renewal permit.
- 8) **Section 4.4. Requirements** – The requirements for CE-01 have been removed and the requirements for CE-06 have been added in Section 4.4. of the permit.
 - The applicability reference for CE-01 has been deleted and CE-06 has been added in conditions 4.4.3., 4.4.4., 4.4.5. and 4.4.9. of the renewal permit
- 9) **Section 4.5. Requirements** – The requirements for CE-01 have been removed and the requirements for CE-06 have been added in Section 4.5. of the permit.
 - The applicability reference for CE-01 has been deleted and CE-06 has been added in conditions 4.5.1., 4.5.2. and 4.5.6. of the renewal permit.
 - Condition 4.5.7. has been added in the renewal permit for reporting requirements from 40 CFR Subpart JJJ §60.4245(e) applicable to emergency generator GE-01.

10) **Condition 9.1.8.** – Updated the language to the revised language in 40 CFR §60.5370(b).

40 CFR 60 Subpart JJJJ — Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

- 40CFR60 Subpart JJJJ establishes emission limits, fuel requirements, installation requirements, and monitoring requirements based on the year of manufacture of the subject internal combustion engine.
 - Engine CE-06 is an 800 HP, four stroke rich-burn (4SRB) spark ignition engine with a manufacture date of August 26, 1980. Pursuant to 40 CFR §60.4230(a)(4)(i), since the engine was manufactured prior to July 1, 2007, it is not subject to Subpart JJJJ.

40 CFR 63 Subpart ZZZZ — National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

- Subpart ZZZZ establishes national emission limitations and operating limitations for HAPs emitted from stationary RICE located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.
 - Engine CE-06 is considered an *Existing stationary RICE* for Subpart ZZZZ since its construction was commenced before June 12, 2006 (cf. §63.6590(a)(1)(iii)). The applicable requirements from this subpart have been included in Section 4.0. of the renewal permit. (see discussion above)

Non-Applicability Determinations

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

- a. **45CSR14 – Permits for Construction and Major Modification of Major Stationary Sources for the Prevention of Significant Deterioration of Air Quality.** The Fort Beeler facility is not a “Major stationary source” as defined in 45CSR§14-2.43 and the latest modification (Permit R13-2826N) did not trigger the major source threshold. Therefore, the Fort Beeler Facility is not subject to 45CSR14.
- b. **45CSR19 – Permits for Construction and Major Modification of Major Stationary Sources which Cause or Contribute to Nonattainment Areas.** On September 30, 2013, EPA approved a redesignation request and State Implementation Plan (SIP) revision submitted by the State of West Virginia. The West Virginia Department of Environmental Protection (WVDEP) requested that the West Virginia portion of the Wheeling, WV–OH fine particulate matter (PM_{2.5}) nonattainment area (“Wheeling Area” or “Area”) be redesignated as attainment for the 1997 annual PM_{2.5} national ambient air quality standard (NAAQS). The Fort Beeler facility is located in Marshall County, which is located in this metropolitan statistical area and is an attainment county for all pollutants. Therefore the Fort Beeler Facility is not subject to 45CSR19.
- c. **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.
- d. **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.). The renewal application (Supplement 02 - Regulatory Discussion) indicates that the product produced by the equipment does not contain more than 5% benzene by weight. This is supported in the “Supplement 05 – Lab Analysis” portion of

- the application which gives the benzene weight percentages at various areas and processes at the facility. Of all the data provided in this supplement, the highest “worst case” weight percentage is below 0.5%. Based upon the provided information, none of the weight percentages are greater than 5%. Therefore, none of the equipment contacts materials containing more than 5% benzene by weight. For these reasons, 45CSR27 is not applicable to the Fort Beeler Processing Plant.
- e. **40 CFR 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 CFR §60.40(a)(1)) at the site; therefore, this regulation is not applicable.
 - f. **40 CFR 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 CFR §60.40Da(a)(1)) at the site; therefore, this regulation is not applicable.
 - g. **40 CFR 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 CFR §60.40b(a)) at the site; therefore, this regulation is not applicable.
 - h. **40 CFR 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 CFR §60.110(c)); therefore, this regulation is not applicable.
 - i. **40 CFR 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 CFR §60.110a(a)); therefore, this regulation is not applicable.
 - j. **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.** Except for fourteen (14) pressure vessels, all of the tanks at the facility are less than 75 cubic meters (m³) (19,813 gallons) capacity; therefore, this regulation is not applicable to those tanks (§60.110b(a)). The fourteen (14) pressure vessels are designed to operate in excess of 204.9 kPa and without emissions to the atmosphere; therefore, this regulation is not applicable to the pressure vessels (§60.110b(d)(2)).
 - k. **40 CFR 60 Subpart GG – Standards of Performance for Stationary Gas Turbines.** There is no stationary gas turbine at the facility (40 CFR §60.330(a)); therefore, this regulation is not applicable.
 - l. **40 CFR 60 Subpart VV and VVa – Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for which Construction, Reconstruction, or Modification Commenced (for VV) After January 5, 1981, and on or Before November 7, 2006; (for VVa) After November 7, 2006.** The facility is not an affected facility in the synthetic organic chemicals manufacturing industry (40 CFR §60.480(a) and §60.480a(a)); therefore, these regulations are not applicable.
 - m. **40 CFR 60 Subpart GGG and GGGa– Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for which Construction, Reconstruction, or Modification Commenced (for GGG) After January 4, 1983, and on or Before November 7, 2006; (for GGGa) After November 7, 2006.** The facility is not a petroleum refinery (40 CFR §60.590(a) and §60.590a(a)); therefore, these regulations are not applicable.

- n. **40 CFR 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 CFR §60.640(a)); therefore, this regulation is not applicable.
- o. **40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.** There is no compression ignition engine at the facility (40 CFR §60.4200(a)); therefore, this regulation is not applicable.
- p. **40 CFR 60 Subpart KKKK – Standards of Performance for Stationary Combustion Turbines.** There is no stationary combustion turbine at the facility (40 CFR §60.4305(a)); therefore, this regulation is not applicable.
- q. **40 CFR 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. Further, the facility is an area source of HAP (40 CFR §63.1270(a)). Therefore, this regulation is not applicable.
- r. **40 CFR 63 Subpart YYYY – National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines.** There is no stationary combustion turbine at the facility (40 CFR §§63.6080(a) and 63.6085); therefore, this regulation is not applicable.
- s. **40 CFR 63 Subpart DDDDD – National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.** The facility is not a major source of HAP (40 CFR §63.7480); therefore, this regulation is not applicable.
- t. **40 CFR 63 Subpart JJJJJ – National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources.** There are only gas-fired boilers at the facility which are not subject to requirements of this regulation (40 CFR §63.11195(e)); therefore, this regulation is not applicable.
- u. **40 CFR Part 64 – Compliance Assurance Monitoring.** 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 do not exceed the respective major source threshold. Therefore, CAM is not applicable since the applicability criterion in 40 CFR §64.2(a)(3) is not met.

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: January 26, 2021
Ending Date: February 25, 2021

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.