

# 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 April 26, 2016.

Permit Number: **R30-05100157-2016**  
Application Received: **December 23, 2015**  
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**

Permit Action Number: *MM01*      Revised: *August 2, 2016*

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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 12<sup>th</sup> St ~ 1.1 miles.  
    Continue onto Fork Ridge Rd ~5.4 miles. Site entrance is on the left.

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### 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 (C<sub>2</sub>H<sub>6</sub>), propane (C<sub>3</sub>H<sub>8</sub>), 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.

The purpose of this modification is the addition of a natural gas compressor station, the Francis Compressor Station, located at the inlet of the existing Oak Grove Gas Plant. The proposed new compressor station will be considered "one-source" with the Oak Grove Natural Gas Processing Facility. The proposed Francis Compressor Station will consist of one (1) natural gas-fired Caterpillar G3516B 4-Stroke Lean Burn (4SLB) 1,380 horsepower (hp) compressor engine and one (1) electric Leroi LRG-DP compressor to

provide additional pressure to pull natural gas into the adjacent processing plant. This compressor station was permitted under R13-3289.

### Emissions Summary

The emissions increases associated with this modification are as follows:

Pollutant	Increase in PTE (TPY)
CO	3.89
NO <sub>x</sub>	6.66
PM <sub>10</sub>	0.49
SO <sub>2</sub>	0.03
VOC	30.19
HAPs	2.48

### Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 196.55 TPY of CO, 127.92 TPY of NO<sub>x</sub>, and 143.63 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.

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

Federal and State:	45CSR13	Construction permit
	45CSR16	New Stationary Sources
	45CSR30	Operating permit requirement.
	45CSR34	Emissions standards for HAPs.
	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. Part 63, Subpart ZZZZ	RICE MACT

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 following list of permits is related to this modification:

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit ( <i>if any</i> )
R13-3289	April 12, 2016	

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

With the addition of the Francis Compressor Station, the following changes were made in this modification:

- The following emission points were added to the emission units table:

Emission Unit ID	Emission Point ID	Emission Unit Description
CE-01	22E	Caterpillar G3516B 4-Stroke Lean Burn (4SLB) Compressor Engine
RPC-3	23E	Rod Packing/Crankcase Leaks
SSM-2	24E	Start/Stop/Maintenance
FUG-3	25E	Piping and Equipment Fugitives – Gas

- Footnotes 2 and 3 were added to the emission units table.
- Condition 3.1.10, which addresses operation and maintenance of air pollution control equipment, was revised to include a reference to condition 4.1.5 in R13-3289.
- Condition 3.4.1, which contains recordkeeping requirements for monitoring information, was revised to include a reference to condition 4.4.1 in R13-3289.
- Condition 3.4.4, which addresses recordkeeping of malfunctions of air pollution control equipment, was revised to include a reference to condition 4.4.3 in R13-3289.
- Section 11.0 was added with this permit modification to include all remaining requirements for the Francis Compressor Station. These requirements are summarized below:

Condition Number	Condition Description	R13-3289 Condition	Other Citations
11.1.1	Do not exceed listed design capacities and use all control devices.	4.1.1	None
11.1.2.a	Model and horsepower rating of compressor engine	4.1.2	None
11.1.2.b	Use of oxidation catalyst		None
11.1.2.c	Emission limits for compressor engine		None
11.1.2.d	No annual limit of hours of operation		None
11.1.2.e	Periods of start-up and shut-down; operation consistent with good air pollution control practices		
11.1.2.f	Compressor engine compliance with 40 CFR 60, Subpart JJJJ		45CSR16; 40 CFR §60.4233(e)
11.1.2.g	Compressor engine compliance with 40 CFR 60, Subpart OOOO		45CSR16; 40 CFR §§60.5385(a)(1) and (2)
11.1.2.h	Compliance with 40 CFR 63, Subpart ZZZZ by complying with 40 CFR 60, Subpart JJJJ.		45CSR34; 40 CFR §§63.6590(c) and (c)(1)
11.1.3	Use of oxidation catalysts	4.1.3	None
11.1.4	Mitigation of fugitive emissions	4.1.4	None
11.1.5	Operate and maintain stationary SI ICE that achieve the emission standards as required in §60.4233 over the entire life of the engine.	None	45CSR16; 40CFR§60.4234
11.1.6	General Provisions in §§60.1 through 60.19	None	45CSR16; 40CFR§60.4246
11.2.1	Monitoring, Compliance Demonstration, Recording and Reporting Requirements for the oxidation catalyst	4.2.1	None
11.2.2	Monitoring under 40 CFR 60, Subpart JJJJ.	4.2.2	45CSR16; 40 CFR §§60.4243(b), (b)(2), and (b)(2)(ii)
11.2.3	Monitoring, Compliance Demonstration, Recording and Reporting Requirements for the fugitive emissions.	4.2.3	None
11.3.1	Conduct or have conducted test(s) to determine compliance with the emission limitations established in this permit and/or applicable regulations.	4.3.1	None
11.3.2	Compressor engine testing to determine compliance with the CO, NOx, and VOC emission limits given under 11.1.2(c)	4.3.2	None
11.3.3	40 CFR 60, Subpart JJJJ performance testing requirements.	4.3.3	45CSR16; 40CFR§60.4244
11.4.1	Record of Maintenance of Air Pollution Control Equipment	4.4.2	None
11.4.2	40 CFR 60, Subpart JJJJ recordkeeping requirements.	None	45CSR16; 40CFR§60.4245(a)
11.5.1	Initial notification	None	45CSR16; 40CFR§60.4245(c)
11.5.2	Submit a copy of performance tests conducted	None	45CSR16; 40CFR§60.4245(d)

## Non-Applicability Determinations

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

**45CSR14: Permits for Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration:** The Francis Compressor Station is being constructed and will be considered one source with the Oak Grove Natural Gas Processing Facility. This facility is located in Marshall County, WV. Marshall County is classified as "in attainment" with all National Ambient Air Quality Standards (NAAQS) except for, in certain tax districts, SO<sub>2</sub>. The Clay Tax District, where the Moundsville facility is located, is classified as "non-attainment" for SO<sub>2</sub>. Therefore, applicability to major New Source Review (NSR) for all pollutants except for SO<sub>2</sub> is determined under 45CSR14.

As the facility is not a "listed source" under §45-14-2.43, the individual major source applicability threshold for all criteria pollutants (with the exception of SO<sub>2</sub>) is 250 TPY. The facility-wide post-modification PTE of the Oak Grove Natural Gas Processing Facility (including the Francis Compressor Station) is less than 250 TPY for all criteria pollutants. Therefore, the facility is not defined as a "major stationary source" under 45CSR14.

**45CSR19: Requirements for Pre-Construction Review, Determination of Emission Offsets for Proposed New or Modified Stationary Sources of Air Pollutants and Emission Trading for Intrasource Pollutants:** The Francis Compressor Station is being constructed and will be considered one source with the Oak Grove Natural Gas Processing Facility. Pursuant to §45-19-3.1, 45CSR19 "applies to all major stationary sources and major modifications to major stationary sources proposing to construct anywhere in an area which is designated non-attainment." As noted above, the Oak Grove Natural Gas Processing Facility (including the Francis Compressor Station) is located in Marshall County, WV which is classified as in attainment with all NAAQS; with the exception for SO<sub>2</sub> in the areas defined as the Clay (where the source is located), Washington, and Franklin Tax Districts. Pursuant to §45-19-2.35, the individual major source applicability threshold for all non-attainment pollutants is 100 TPY. The facility-wide post-modification SO<sub>2</sub> PTE of the Oak Grove Natural Gas Processing Facility (including the Francis Compressor Station) is less than 100 TPY. Therefore, the facility is not defined as a "major stationary source" under 45CSR19 and the changes evaluated herein will not trigger the requirements of 45CSR19.

**45CSR27: To Prevent and Control the Emissions of Toxic Air Pollutants:** Pursuant to §45-27-3.1, the "owner or operator of a plant that discharges or may discharge a toxic air pollutant into the open air in excess of the amount shown in the Table A [of 45CSR27] shall employ BAT [Best Available Technology] at all chemical processing units emitting the toxic air pollutant." The PTE of formaldehyde generated by the compressor engine is greater than 0.5 TPY (greater than the 1,000 pound per year threshold given in Table A of 45CSR27). However, internal combustion engines do not meet the definition of "chemical processing units" under §45-27-2.4 and, therefore, the proposed engine is not subject to BAT under 45CSR27.

## 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: N/A  
Ending Date: N/A

### **Point of Contact**

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

Rex Compston, P.E.  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 1209 • Fax: 304/926-0478  
[Rex.E.Compston@wv.gov](mailto:Rex.E.Compston@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.