

Fact Sheet



***For Final Significant Modification Permitting Action Under 45CSR30
and
Title V of the Clean Air Act***

This Fact Sheet serves to address the changes specific to this Significant Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on July 11, 2023.

Permit Number: **R30-01700034-2023**

Application Received: **May 9, 2024**

Plant Identification Number: **03-54-017-00034**

Permittee: **MarkWest Liberty Midstream & Resources, L.L.C.**

Facility Name: **Sherwood Gas Plant**

Mailing Address: **1515 Arapahoe Street, Tower 1, Suite 1600; Denver, CO 80202-2137**

Permit Action Number: *SM01* Revised: *October 29, 2024*

Physical Location: West Union, Doddridge County, West Virginia
UTM Coordinates: 526.921 km Easting • 4,346.885 km Northing • Zone 17
Directions: From W Virginia 20S, turn onto CO Rd 7/8 (2.8 mi), continue onto CO Rd 80 (0.8 mi), turn left onto CO Rd 7/4 (0.4 mi), turn right onto CO Rd 7/4/Sheep Run (0.8 mi). Turn left onto CO Rd 7/7, arrive at destination.

Facility Description

The Sherwood Gas Plant is used as a processing plant and compressor station to process gas from gas wells throughout West Virginia. High pressure natural gas enters the cryogenic plants and passes through a molecular sieve to remove the excess water in the gas stream. The gas then enters the cryogenic plant, which lowers the temperature of the gas in order to separate ethane and heavier hydrocarbons (Y-grade) from methane gas. After this refrigeration, the gas is ready to go to market and passes through outlet compression prior to entering the downstream pipeline to a distribution pipeline operated by a separate

entity. Liquids removed from the gas stream will pass through the deethanization units to separate ethane as a purity product from the remainder of the natural gas liquid stream. Purity ethane is distributed by pipeline. Natural gas liquids are transferred via pipeline to a fractionation facility. Atmospheric storage tanks at the inlet compressor station will be controlled with a VRU to recover 98% of VOCs. Under normal operating conditions electric pumps will be utilized to transfer the removed saltwater and hydrocarbons from the atmospheric storage tanks to another site for further processing. Truck loading may occur; however, the loading will be done in a closed loop system to minimize emissions. A process/emergency flare currently exists to burn vapors released from the reboiler, pressure relief valves on the demethanizer, and refrigeration plant in the event of an emergency and for control of maintenance activities.

Emissions Summary

This modification results in the following emission changes:

Pollutant	PTE Change (TPY)
Nitrogen Oxides	+3.84
Carbon Monoxide	+17.52
Volatile Organic Compounds	+6.99
PM ₁₀	0.00
Sulfur Dioxide	0.00
Total HAPs	+0.14

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit 190.21 tpy of CO and 163.28 tpy of NO_x. Due to this facility's potential to emit over 100 tons of criteria pollutant, MarkWest Liberty Midstream & Resources, L.L.C. 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	NSR Permits
	45CSR30	Operating permit requirement.
State Only:	N/A	

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>)
R13-2914L	July 23, 2024	

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

The purpose of this modification is to increase the annual flow rate for the process flare (FS-762) for increased operational flexibility. The changes were approved under R13-2914L.

The following changes were made to the Title V Permit:

- Section 1.0
 - Table 1.2 was updated since R13-2914L supersedes and replaces R13-2914K.
- Section 8.0
 - Conditions 8.1.3.g and 8.1.3.h were updated with the revised limits for the increased maximum flow rate of FS-762.

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: September 11, 2024
Ending Date: October 11, 2024

Point of Contact

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

Robert Mullins
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
304/926-0499 ext. 41286
Robert.A.Mullins@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)

The following boilerplate changes have been made to the permit. These changes to the boilerplate became effective September 23, 2024.

- Condition 3.1.6 - Revised the citation to refer to the current version of the WV Code.
- Condition 3.3.1. - Revised the citation to refer to the current version of the WV Code.
- Condition 3.3.1. - Added “If a testing method is specified or approved which effectively replaces a test method specified in the permit, the permit shall be revised in accordance with 45CSR§30-6.4 or 45CSR§30-6.5 as applicable.”