

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 January 2, 2020.

Permit Number: **R30-09900118-2020**
Application Received: **September 30, 2021**
Plant Identification Number: **099-00118**
Permittee: **Marathon Petroleum Company LP**
Facility Name: **Neal Propane Cavern**
Mailing Address: **P.O. Box 1492; Catlettsburg, KY 41129**

Permit Action Number: *SM01* Revised: *January 26, 2022*

Physical Location:	Kenova, Wayne County, West Virginia
UTM Coordinates:	360.688 km Easting • 4,247.736 km Northing • Zone 17
Directions:	From I-64 East take exit 1 for US-52 S toward Kenova Ceredo. On U.S. 52 S/W Virginia 75 E, turn right onto Co Hwy 1/16, turn left to stay on Co Hwy 1/16, turn left onto Novamount Rd, facility will be on the right.

Facility Description

The propane cavern (SIC: 2911) serves the Catlettsburg refinery by providing intermediate storage of excess propane produced in the Saturate Gas Plant (SGP), HF Alkylation (HF Alky) Unit, and Cumene Unit. After being treated at the refinery to remove contaminants, propane is transferred as a liquid product via a pipeline traversing across the Big Sandy River and is pumped into the propane cavern. The cavern also receives propane extracted from the propylene/propane stream sold by the Catlettsburg refinery to the Braskem America, Inc. (Braskem) Kenova, West Virginia plant. Braskem separates the propane from the propane/propylene stream, uses the propylene stream in their chemical manufacturing process, and routes the separated propane stream to the cavern. On the outlet side of the system, the cavern can supply propane to the refinery's fuel gas system, but its predominant function is to supply the product propane for sale to outside customers. Propane destined for sale or use in the refinery's fuel gas system is transported back across the Big Sandy River via a separate, dedicated cavern discharge piping network. Product propane is

dried, routed through carbon adsorption beds, certified for certain product specifications, and charged to a series of five (5) pressurized, bullet tanks (i.e., Tanks 862- 866 listed in the refinery’s Title V permit). Any off-specification product is pumped back to the cavern. From the bullet tanks, the on-specification product propane is transferred into tanker trucks or railcars for transportation to customers.

Emissions Summary

The change in potential emissions associated with the significant modification (SM01) is as follows:

Pollutants	Change in Potential Emissions, TPY
CO	+0.06
NO _x	+2.33
PM ₁₀	+0.08
SO ₂	+0.85
VOC	+0.06

Title V Program Applicability Basis

Marathon Petroleum Company LP’s Neal Propane Cavern (Facility ID: 099-00118), MPLX Terminal and Storage LLC’s Butane Storage Cavern (Facility ID: 099-00112), and Catlettsburg Refining, LLC’s Catlettsburg Refinery are considered a single source for the Clean Air Act permitting purposes. With the proposed changes associated with this modification, this facility maintains the potential to emit 458.88 TPY of PM₁₀, 2,658.25 TPY of SO₂, 2,538.93 TPY of NO_x, 4,312.26 TPY of CO, 7326.36 TPY of VOC, 169.8 TPY of Benzene, 160.7 TPY of Cumene, and 338.3 TPY of total HAPs. Due to the combined facility’s potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, Marathon Petroleum Company’s Neal Propane Cavern 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:	45CSR30	Operating permit requirement.
	45CSR16	NSPS
	45CSR34	NESHAP
	40 C.F.R. Part 60 Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
	40 C.F.R. Part 63 Subpart ZZZZ	National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
State Only:	None	

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>)
None	N/A	

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

A 95HP diesel fired emergency use fire pump (Emission Point ID-2E) manufactured in June 2016 was installed at the Neal Propane Cavern in October 2016. The engine is subject to 40 CFR 63 Subpart ZZZZ "National Emission Standards for Hazardous Air Pollutants (HAP) for Stationary Reciprocating Internal Combustion Engines (ICE)" and 40 CFR 60 Subpart III "Standards of Performance for Stationary Compression Ignition ICE". 40 CFR §63.6590(c)(6) provides that compliance with Subpart ZZZZ for new emergency engines with a site rate of less than or equal to 500 brake HP located at a major source of HAP emissions will be met by complying with Subpart III with no further requirements under Subpart ZZZZ. Firewater Pump Diesel Engine [Emission point ID-2E] was added to the Emission Units Table and its applicable 40 CFR 60 Subpart III requirements were added in section 5 of this permit.

Non-Applicability Determinations

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

- a. 45CSR7—This rule does not apply since this facility does not emit smoke, particulate matter, or other gaseous matter. Also, this facility does not meet the definition of a manufacturing process in 45CSR§7-2.20.
- b. 45CSR21—The only potentially applicable sections of this regulation are 45CSR§21-26 for Leaks from Petroleum Refinery Equipment and 45CSR§21-40 for Other Facilities that Emit Volatile Organic Compounds. The propane cavern does not meet the definition of a petroleum refinery in 45CSR§21-2.55, since this facility is not engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of petroleum or through the redistillation, cracking, or reforming of unfinished petroleum derivatives; so 45CSR§21-26 does not apply. The propane cavern's aggregate maximum theoretical VOC emissions are below 100 TPY, so 45CSR§21-40 does not apply.
- c. 45CSR27—This facility does not meet the definition of "chemical processing unit" in 45CSR§27-2.4 since the propane stored in the cavern is below 5% benzene by weight, thus this rule does not apply.
- d. 40CFR64—This facility does not have any pollutant-specific emission units that satisfy the requirements of 40CFR§64.2(a), thus 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: December 11, 2021

Ending Date: January 10, 2022

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)

Not applicable.