

Fact Sheet



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

Permit Number: **R30-09900118-2020**
Application Received: **March 18, 2019**
Plant Identification Number: **099-00118**
Permittee: **Marathon Petroleum Company LP**
Facility Name: **Neal Propane Cavern**
Mailing Address: **P.O. Box 1492; Catlettsburg, KY 41129**

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

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2018 Actual Emissions
Carbon Monoxide (CO)	0.00	0.00
Nitrogen Oxides (NO _x)	0.00	0.00
Particulate Matter (PM _{2.5})	0.00	0.00
Particulate Matter (PM ₁₀)	0.00	0.00
Total Particulate Matter (TSP)	0.00	0.00
Sulfur Dioxide (SO ₂)	0.00	0.00
Volatile Organic Compounds (VOC)	3.78	0.04

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2018 Actual Emissions
None	0.00	0.00

Title V Program Applicability Basis

This facility, 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 Clean Air Act permitting purposes. The combined facility has the potential to emit 458.8 TPY of PM₁₀, 2,657.4 TPY of SO₂, 2,536.6 TPY of NO_x, 4,312.2 TPY of CO, 7326.3 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.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR6	Open burning prohibited.
	45CSR11	Standby plans for emergency episodes.
	45CSR16	NSPS
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	40 C.F.R. Part 60, Subpart GGa	Equipment leaks in petroleum refineries.
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.

45CSR17

Fugitive particulate matter.

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)
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

This is the first renewal of this Title V Permit. There have been no changes to the Neal Propane Cavern or any of the applicable State Rules and Federal Regulations since the issuance of the initial Title V permit on September 16, 2014. Below is the original Determinations and Justifications which are still relevant:

40 CFR 60 Subpart GGGa -Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006: 40 CFR 60 Subpart GGGa applies to all equipment leak components within a petroleum refining process unit for which construction, reconstruction, or modification commenced after November 7, 2006. The propane cavern equipment leak components that are located in West Virginia are part of the HF Alkylation petroleum refining process unit permitted by the Kentucky Division for Air Quality (KDAQ). The HF Alky unit meets the definition of a process unit under 40 CFR 60 Subpart GGGa and has already triggered applicability of 40 CFR 60 Subpart GGGa. Therefore, the equipment leak components for the propane cavern are subject to 40 CFR 60 Subpart GGGa. According to 40CFR§60.592a (condition 4.1.1 of this permit), a facility subject to the provisions of 40 CFR 60, Subpart GGGa shall comply with the requirements of 40 CFR §§ 60.482-1a to 60.482-10a as soon as practicable, but no later than 180 days after initial startup.

The following portions of 40 CFR §§ 60.482-1a to 60.482-10a do not apply to this facility:

- 40CFR§60.482-2a: no pumps in light liquid service are used at this facility.
- 40CFR§60.482-3a: no compressors are used at this facility.
- 40CFR§§60.482-4a(a) and (b): no pressure relief devices in gas/vapor service that vent to the atmosphere are used at this facility.

The following portions of 40 CFR §§ 60.482-1a to 60.482-10a were included in this permit:

- 40CFR§60.482-1a(e): exemption requirements for equipment designated as being in VOC service less than 300 hr/yr (condition 4.1.3 of this permit).

- 40CFR§60.482-4a(c): requirements for pressure relief devices in gas/vapor service (condition 4.1.14 of this permit).
- 40CFR§60.482-5a: requirements for sampling connection systems (condition 4.1.15 of this permit).
- 40CFR§60.482-6a: requirements for open-ended valves or lines (conditions 4.1.4 through 4.1.9 of this permit).
- 40CFR§60.482-7a: requirements for valves in light liquid service (conditions 4.2.1 and 4.2.2 of this permit).
 - For a given process unit, the permittee may elect to follow the alternative requirements found in 40CFR §§ 60.483-1a, 60.483-2a, or 63.168 (condition 4.1.2 of this permit).
- 40CFR§60.482-8a: Requirements for pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service (condition 4.2.4 of this permit).
 - According to 40CFR§60.593a(g) (Condition 4.1.16 of this permit), connectors in gas/vapor or light liquid service are exempt from the requirements of 40CFR§60.482-11a (connectors in gas/vapor service and light liquid service), provided the owner or operator complies with 40CFR§60.482-8a for all connectors, not just those in heavy liquid service.
- 40CFR§60.482-9a: delay of repair requirements (conditions 4.1.10 through 4.1.13 and 4.2.3 of this permit).

Additionally, testing requirements of 40CFR§60.485a, recordkeeping requirements of 40CFR§60.486a, and reporting requirements of 40CFR§60.487a were included with this permit as conditions 4.3.1, 4.4.1, and 4.5.1.

Non-Applicability Determinations

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

45CSR7—To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associated Operations: 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.

45CSR21—To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds: 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.

45CSR27—To Prevent and Control the Emissions of Toxic Air Pollutants: 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.

40 CFR 64—Compliance Assurance Monitoring: 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: November 7, 2019
Ending Date: December 9, 2019

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.