



Modi, Beena J <beena.j.modi@wv.gov>

RE: [EXTERNAL] R30-09900118-2025-Marathon Petroleum Company LP

1 message

Adams, Tina N. <tadams3@marathonpetroleum.com>
To: "Modi, Beena J" <beena.j.modi@wv.gov>

Wed, Nov 20, 2024 at 10:04 AM

Thank you. We have no further comments.

Tina

From: Modi, Beena J <beena.j.modi@wv.gov>
Sent: Wednesday, November 20, 2024 10:02 AM
To: Adams, Tina N. <tadams3@marathonpetroleum.com>
Subject: Fwd: [EXTERNAL] R30-09900118-2025-Marathon Petroleum Company LP

I have forwarded a response from my manager.

----- Forwarded message -----

From: **McCumbers, Carrie** <carrie.mccumbers@wv.gov>
Date: Wed, Nov 20, 2024 at 9:55 AM
Subject: Re: [EXTERNAL] R30-09900118-2025-Marathon Petroleum Company LP
To: Modi, Beena J <beena.j.modi@wv.gov>

If the specific NSPS or MACT regulation requires reporting through CEDRI, the DAQ includes these specific requirements in the permit. Title V boilerplate condition 3.5.3 is meant to fill in any gaps when the method of reporting, submissions, or communications to EPA was not specified. For condition 3.5.5, EPA has not informed WV DAQ that Title V annual compliance certifications should be submitted through CEDRI.

On Wed, Nov 20, 2024 at 9:22 AM Modi, Beena J <beena.j.modi@wv.gov> wrote:

----- Forwarded message -----

From: **Adams, Tina N.** <tadams3@marathonpetroleum.com>
Date: Wed, Nov 20, 2024 at 9:06 AM
Subject: RE: [EXTERNAL] R30-09900118-2025-Marathon Petroleum Company LP
To: Modi, Beena J <beena.j.modi@wv.gov>

Attached are revisions to the PTE in the fact sheet to match what we have in the Butane Cavern permit.

In the permit, should section 3.5.3 make note that reports to USEPA are sent through the CDX (CEDRI) system? The same for 3.5.5 and 3.5.6?

Thanks,

Tina

From: Modi, Beena J <beena.j.modi@wv.gov>
Sent: Tuesday, November 19, 2024 4:33 PM
To: Adams, Tina N. <tadams3@marathonpetroleum.com>
Subject: [EXTERNAL] R30-09900118-2025-Marathon Petroleum Company LP

Hi Tina,

Please review the attached files and let me know your comments by December 1st. .

Thank you!

Beena Modi

Fact Sheet



For Draft/Proposed Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-09900118-2025**
Application Received: **May 9, 2024**
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	2023 Actual Emissions
Carbon Monoxide (CO)	0.64	<0.01
Nitrogen Oxides (NO _x)	2.33	0.01
Particulate Matter (PM _{2.5})	0.09	<0.01
Particulate Matter (PM ₁₀)	0.17	0.04
Total Particulate Matter (TSP)	0.41	0.16
Sulfur Dioxide (SO ₂)	0.85	<0.01
Volatile Organic Compounds (VOC)	6.88	0.92

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2018 Actual Emissions
Total HAPs	0.01	<0.01

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 458.92336.6 TPY of PM₁₀, 2,658.25600.0 TPY of SO₂, 2,538.942370.7 TPY of NO_x, 4,342.262930.9 TPY of CO, 7327.281754.1 TPY of VOC, 469.816.9 TPY of Benzene, 460.714.3 TPY of Cumene, and 338.355.4 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) (15)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	45CSR34	NESHAP
	40 C.F.R. Part 60, Subpart GGGa	Equipment leaks in petroleum refineries.
	40 C.F.R. Part 60 Subpart IIII	Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
	40 C.F.R. Part 61	Asbestos inspection and removal

	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.
	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 (<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

Title V Boilerplate changes:

- **Conditions 2.1.3., 3.5.4., and 3.5.8.a.2.** – Revised resulting from changes to 45CSR30.
- **Condition 2.11.4.** – The citation was revised due to changes to 45CSR30.
- **Condition 2.22.1.** – The citation was revised because 45CSR38 has been repealed.
- **Condition 3.5.3.** – The mailing address for the U.S. EPA was revised.
- **Conditions 2.17., 3.5.7., 3.5.8.a.1.** – Deleted based on changes to 45CSR30.
- **Conditions 3.1.6. and 3.3.1.** – The citation was revised to refer to the current version of the WV Code.
- **Condition 3.3.1.b.** – This condition was updated to include the following additional language: “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.”

Other Changes:

- **Conditions 5.1.1., 5.1.2., and 5.1.5.** – Revised due to changes to 40 C.F.R. 60 Subpart III.

Non-Applicability Determinations

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

- 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.
- 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§21-2.54, 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—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 Part 64 – The facility did not have any pollutant specific emissions units (PSEUs) that satisfied all of the applicability criteria requirements of 40 CFR §64.2(a). There have been no emission units added to this permit since the previous renewal was issued, so CAM remains not applicable to any emission unit listed in the renewal application.

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: (Date of Notice Publication)

Ending Date: (Publication Date PLUS 30 Days)

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)

(Choose) Not applicable.

OR

Describe response to comments that are received and/or document any changes to the final permit from the draft/proposed permit.



Modi, Beena J <beena.j.modi@wv.gov>

RE: [EXTERNAL] Fwd: Title V Operating Permit R30-09900118-2024

1 message

Adams, Tina N. <tadams3@marathonpetroleum.com>
To: "Modi, Beena J" <beena.j.modi@wv.gov>

Tue, Oct 29, 2024 at 9:42 AM

See below. In the application, I put the potential emissions for the particulate matter TST and 2.5 in reverse order on the facility summary. They are correct in the emission unit forms.

Thanks,

Tina

From: Modi, Beena J <beena.j.modi@wv.gov>
Sent: Tuesday, October 29, 2024 9:27 AM
To: Adams, Tina N. <tadams3@marathonpetroleum.com>
Subject: [EXTERNAL] Fwd: Title V Operating Permit R30-09900118-2024

----- Forwarded message -----
From: **Modi, Beena J** <beena.j.modi@wv.gov>
Date: Thu, Oct 24, 2024 at 4:49 PM
Subject: Title V Operating Permit R30-09900118-2024
To: Adams, Tina N. <tadams3@marathonpetroleum.com>

Hi Tina,

Could you please fill out the missing numbers in the table below?

Thanks,

Beena Modi

Emissions Summary

Plantwide Emissions Summary [Tons per Year]

Regulated Pollutants	Potential Emissions	2023 Actual Emissions
Carbon Monoxide (CO)	0.64	0.00
Nitrogen Oxides (NO _x)	2.33	0.01
Particulate Matter (PM _{2.5})	0.41 0.09	0.16 0.00
Particulate Matter (PM ₁₀)	0.17	0.04
Total Particulate Matter (TSP)	0.09 0.41	0.16
Sulfur Dioxide (SO ₂)	0.85	0.00
Volatile Organic Compounds (VOC)	6.88	0.92

PM₁₀ is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2018 Actual Emissions
None	0.01	0.00



Modi, Beena J <beena.j.modi@wv.gov>

R30-09900118-2024

1 message

Modi, Beena J <beena.j.modi@wv.gov>

Thu, May 30, 2024 at 4:17 PM

To: "Adams, Tina N." <tadams3@marathonpetroleum.com>, jmrichert@marathonpetroleum.com

Your Title V renewal application for a permit to operate the above referenced facility was received by this Division on May 9 , 2024. After review of said application, it has been determined that the application is administratively complete as submitted. Therefore, the above referenced facility qualifies for an Application Shield.

The applicant has the duty to supplement or correct the application. Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. In addition, an applicant shall provide additional information as necessary to address any requirements that become applicable to the source after the date it filed a complete application but prior to release of a draft permit.

The submittal of a complete application shall not affect the requirement that any source have all **preconstruction permits** required under the rules of the Division.

If during the processing of this application it is determined that additional information is necessary to evaluate or take final action on this application, a request for such information will be made in writing with a reasonable deadline for a response. Until which time as your renewal permit is issued or denied, please continue to operate this facility in accordance with 45CSR30, section 6.3.c. which states: *If the Secretary fails to take final action to deny or approve a timely and complete permit application before the end of the term of the previous permit, the permit shall not expire until the renewal permit has been issued or denied, and any permit shield granted for the permit shall continue in effect during that time.* This protection shall cease to apply if, subsequent to the completeness determination made pursuant to paragraph 6.1.d. of 45CSR30 and as required by paragraph 4.1.b., the applicant fails to submit by the deadline specified in writing any additional information identified as being needed to process the application.

Please remember, **failure of the applicant to timely submit information required or requested to process the application may cause the Application Shield to be revoked.** Should you have any questions regarding this determination, please call me at (304)926-0499 ext. 41283.

Sincerely,

Beena Modi

Title V Permit Engineer

Beena.j.modi@wv.gov



Received
May 9, 2024
WV DEP/Div of Air Quality

Catlettsburg Refining, LLC
A subsidiary of Marathon Petroleum Company LP

11631 U.S. Route 23
P.O. Box 1492
Catlettsburg, KY 41129
Tel: 606.921.6200
Fax: 606.921.3500

May 9, 2024

Director
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

ELECTRONIC SUBMITTAL – DEPAirQualityReports@wv.gov

**RE: Marathon Petroleum Company, LP
Propane Storage Cavern
Permit No. R30-09900118-2020
Title V Renewal Application**

Dear Director:

Marathon Petroleum Company, LP (MPC) owns and operates a propane storage cavern (Cavern) in Kenova, West Virginia. While the Cavern is not a major source by its own accord, the West Virginia Department of Environmental Protection (WVDEP) Division of Air Quality (DAQ) considers the MPC's Propane Cavern in Kenova, WV, and Catlettsburg Refining, LLC's Petroleum Refinery in Catlettsburg, KY to be a single source for Clean Air Act permitting purposes and as a result, considers the Cavern to be a major source of HAPs requiring an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

The facility currently operates in accordance with WVDAQ Title V Operating Permit R30-09900118-2020, issued January 2, 2020, and expires January 2, 2025. Please find attached the Renewal Application for the Propane Cavern which is being submitted at least 6 months prior (July 2, 2024) to the permit expiration date.

Note the following attachments listed in the General Application form of the application are not applicable to the Propane Cavern and are not included.

- Attachment F – Schedule of Compliance Form
- Attachment G – Air Pollution Control Device Form
- Attachment H – Compliance Assurance Monitoring Form

May 9, 2024

Page 2

If upon your review, you determine that any additional information is needed or if you have any questions regarding the renewal application, please contact Tina Adams at 606-921-3389 or TAdams3@marathonpetroleum.com.

Respectfully,



Jay M. Richert
Deputy Assistant Secretary
Marathon Petroleum Company, LP
By: MPC Investment, LLC, General Partner

Attachments

tna/wje/gjn
TNA wje/gjn

cc: USEPA Region 3 via CEDRI

Marathon Petroleum, LP
Propane Storage Cavern
Kenova, WV
ID# 099-00118
Title V Renewal Application
Table of Contents

General Application Form

Attachment A – Aerial Map

Attachment B – Plot Plan

Attachment C – Detailed Process Flow Diagram

Attachment D – Equipment Table

Attachment E – Emission Unit Form

Attachment F – Not Applicable (not included)

Attachment G – Not Applicable (not included)

Attachment H – Not Applicable (not included)

Attachment I – Supporting Emission Calculations



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475

www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 sections: 1. Name of Applicant, 2. Facility Name or Location, 3. DAQ Plant ID No., 4. Federal Employer ID No., 5. Permit Application Type, 6. Type of Business Entity, 7. Is the Applicant the..., 8. Number of onsite employees, 9. Governmental Code, 10. Business Confidentiality Claims.

11. Mailing Address		
Street or P.O. Box: P. O. Box 1492		
City: Catlettsburg	State: KY	Zip: 41129
Telephone Number: 606-921-6200		Fax Number: 606-921-3500

12. Facility Location (Physical Address)		
Street: 100 Big Sandy River Rd	City: Kenova	County: Wayne
UTM Easting: 360.688 km	UTM Northing: 4,247.736 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
Directions: From I-64 East take exit 1 for US-52 S toward Kenova Ceredo. On US-52 S/ WV 75 E, turn right onto County Hwy 1/16, turn left to stay on County Hwy 1/16, turn left onto Novamount Rd. Facility is on the right.		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, for what air pollutants?	
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the affected state(s). Ohio, Kentucky	
Is facility located within 100 km of a Class I Area ¹ ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, name the area(s).	
If no, do emissions impact a Class I Area ¹ ? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
¹ Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.		

13. Contact Information		
Responsible Official: Jay M. Richert		Title: Deputy Assistant Secretary
Street or P.O. Box: P. O. Box 1492		
City: Catlettsburg	State: KY	Zip: 41129
Telephone Number: 606-921-6200	Cell Number:	
E-mail address: jmrichert@marathonpetroleum.com		
Environmental Contact: Tina N. Adams, P.E.		Title: Advanced Environmental Engineer
Street or P.O. Box: P. O. Box 1492		
City: Catlettsburg	State: KY	Zip: 41129
Telephone Number: 606-921-3389	Cell Number: 606-331-3116	
E-mail address: tadams3@marathonpetroleum.com		
Application Preparer: Same as Environmental Contact		Title:
Company:		
Street or P.O. Box:		
City:	State:	Zip:
Telephone Number:	Cell Number:	
E-mail address:		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Propane Storage	Propane	424720	4247

Provide a general description of operations.

The propane cavern in Neal, WV was built to store propane produced by the refinery. Propane is primarily sold as a commercial product to outside customers, but it can also be blended into the refinery's fuel gas system for pressure control and to ensure the fuel gas meets heat content specifications. The Catlettsburg refinery produces propane all year from the Saturate Gas Plant, HF Alkylation Unit, and Cumene Unit.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input type="checkbox"/> Minor source NSR (45CSR13)	<input type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR34)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS	<input type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input checked="" type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqts.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> Cross-State Air Pollution Rule (45CSR43)	

19. Non Applicability Determinations
<p>List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.</p> <p>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 meet the definition of a manufacturing process in 45CSR7-2.20.</p> <p>45CSR21-To Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds: The only potentially applicable sections of this regulation are 45CSR21-26 for Leaks from Petroleum Refinery Equipment and 45CSR21-40 for Other Facilities that Emit Volatile Organic Compounds. The propane cavern does not mee the definition of a petroleum refinery in 45CSR21-2.55, 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 40CSR21-26 does not apply. The propane cavern's aggregate maximum theoretical VOC emissions are below 100 TPY; so 45CSR21-40 does not apply.</p>
<input checked="" type="checkbox"/> Permit Shield

19. Non Applicability Determinations (Continued) - Attach additional pages as necessary.

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

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.

Permit Shield

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements).

Discharge of Air Pollutants of Objectionable Odor Not Allowed [45 CSR 4-3.1] (state enforceable only)

Standby Plan for Reducing Emissions [45 CSR 11-5]

Payment of Annual Fees [45 CSR 30]

Risk Management Plan [40 CFR 68]

Control Particulate Matter Air Pollution From Other Sources of Fugitive Matter [45 CSR 17-3]

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Discharge of Air Pollutants of Objectionable Odor Not Allowed [45 CSR 4-3.1]

The permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.

Standby Plan for Reducing Emissions [45 CSR 11-5.2]

When requested by the Secretary, the permittee shall prepare standby plans for reducing the emissions for air pollutants in accordance with objectives set forth in Tables I, II, and III of 45 CSR 11.

Payment of Annual Fees [40 CSR 30]

The permittee shall submit a Certified Emissions Statement (CES) and pay fees on an annual basis in accordance with the submittal requirement of the Division of Air Quality.

Risk Management Plan [40 CFR 68]

The permittee shall submit a risk management plan (RMP) by the date specified in 40 CFR 68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 CFR Part 70.

Control Particulate Matter Air Pollution From Other Sources of Fugitive Matter [45 CSR 17-3]

No person shall cause, suffer, allow or permit fugitive particulate matter to be discharged beyond the boundary lines of the property on which the discharge originates which causes or contributes to statutory air pollution.

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

Open Burning of Refuse [45 CSR 6-3]

Asbestos [45 CSR 34 and 40 CFR 61.145(b)]

Ozone-Depleting Substances [40 CFR 82 Subpart F]

Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Open Burning of Refuse [45 CSR 6-3]

No burning will be conducted except as noted in 45 CSR 6-3.1.

Asbestos [45 CSR 34 and 40 CFR 61.145(b)]

Notification of asbestos demolition or renovation 10 working days prior to commencement. Maintain records.

Ozone-Depleting Substances [40 CFR 82 Subpart F]

Recordkeeping of maintenance, service, repair, or disposal of appliances.

Are you in compliance with all facility-wide applicable requirements? Yes No

If no, complete the Schedule of Compliance Form as ATTACHMENT F.

Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	0.64
Nitrogen Oxides (NO _x)	2.33
Lead (Pb)	--
Particulate Matter (PM _{2.5}) ¹	0.41
Particulate Matter (PM ₁₀) ¹	0.17
Total Particulate Matter (TSP)	0.09
Sulfur Dioxide (SO ₂)	0.85
Volatile Organic Compounds (VOC)	6.88
Hazardous Air Pollutants ²	Potential Emissions
See Detailed Emission Calculations	
for Speciation	
Total HAPs	0.012
Regulated Pollutants other than Criteria and HAP	Potential Emissions

¹PM_{2.5} and PM₁₀ are components of TSP.
²For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input checked="" type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input type="checkbox"/>	3. Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input checked="" type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input type="checkbox"/>	6. Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
<input type="checkbox"/>	7. Blacksmith forges.
<input type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO ₂ lasers, used only on metals and other materials which do not emit HAP in the process.
<input type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input type="checkbox"/>	16. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input type="checkbox"/>	18. Emergency road flares.
<input type="checkbox"/>	19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO _x , SO ₂ , VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	<p>20. Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis:</p>
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	23. Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
<input type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input type="checkbox"/>	26. Fire suppression systems.
<input type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input type="checkbox"/>	29. Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
<input type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.
<input type="checkbox"/>	40. Ozone generators.

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	41. Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
<input type="checkbox"/>	42. Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
<input type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input type="checkbox"/>	44. Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
<input type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input type="checkbox"/>	51. Steam cleaning operations.
<input type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input type="checkbox"/>	54. Steam vents and safety relief valves.
<input type="checkbox"/>	55. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
<input type="checkbox"/>	56. Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input type="checkbox"/>	59. Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table
Fill out the Title V Equipment Table and provide it as ATTACHMENT D .
26. Emission Units
For each emission unit listed in the Title V Equipment Table , fill out and provide an Emission Unit Form as ATTACHMENT E .
For each emission unit not in compliance with an applicable requirement, fill out a Schedule of Compliance Form as ATTACHMENT F . N/A
27. Control Devices
For each control device listed in the Title V Equipment Table , fill out and provide an Air Pollution Control Device Form as ATTACHMENT G . N/A
For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the Compliance Assurance Monitoring (CAM) Form(s) for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as ATTACHMENT H . N/A

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

Note: This Certification must be signed by a responsible official as defined in 45CSR§30-2.38.

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

Responsible official (type or print)

Name:

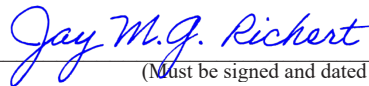
Jay M. Richert

Title:

Deputy Assistant Secretary

Responsible official's signature:

Signature:



Signature Date: 5/9/2024

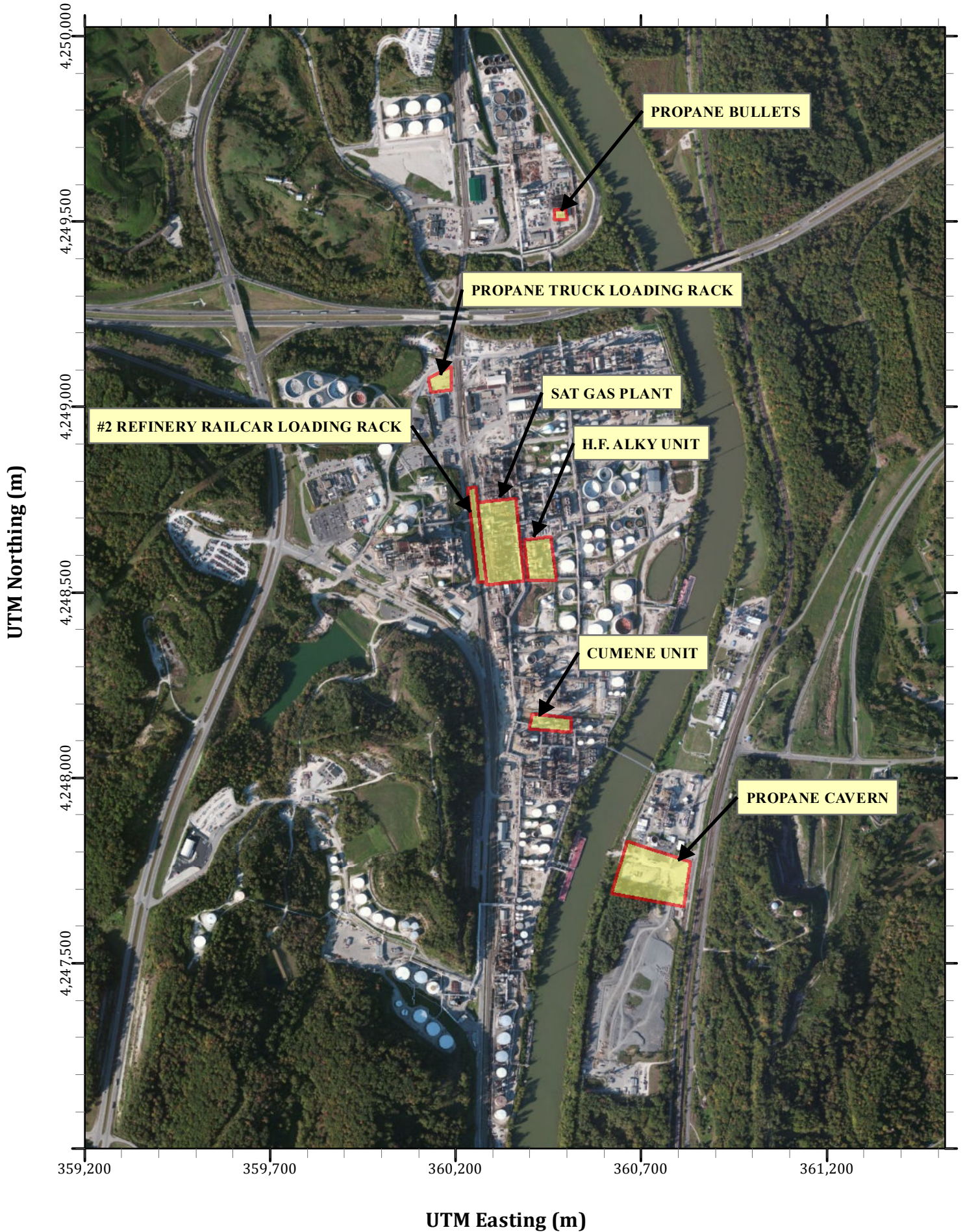
(Must be signed and dated in blue ink or have a valid electronic signature)

Note: Please check all applicable attachments included with this permit application:

- | | |
|-------------------------------------|---|
| <input checked="" type="checkbox"/> | ATTACHMENT A: Area Map |
| <input checked="" type="checkbox"/> | ATTACHMENT B: Plot Plan(s) |
| <input checked="" type="checkbox"/> | ATTACHMENT C: Process Flow Diagram(s) |
| <input checked="" type="checkbox"/> | ATTACHMENT D: Equipment Table |
| <input checked="" type="checkbox"/> | ATTACHMENT E: Emission Unit Form(s) |
| <input type="checkbox"/> | ATTACHMENT F: Schedule of Compliance Form(s) |
| <input type="checkbox"/> | ATTACHMENT G: Air Pollution Control Device Form(s) |
| <input type="checkbox"/> | ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s) |

All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/dag, requested by phone (304) 926-0475, and/or obtained through the mail.


Attachment A - Aerial Map of Propane Cavern



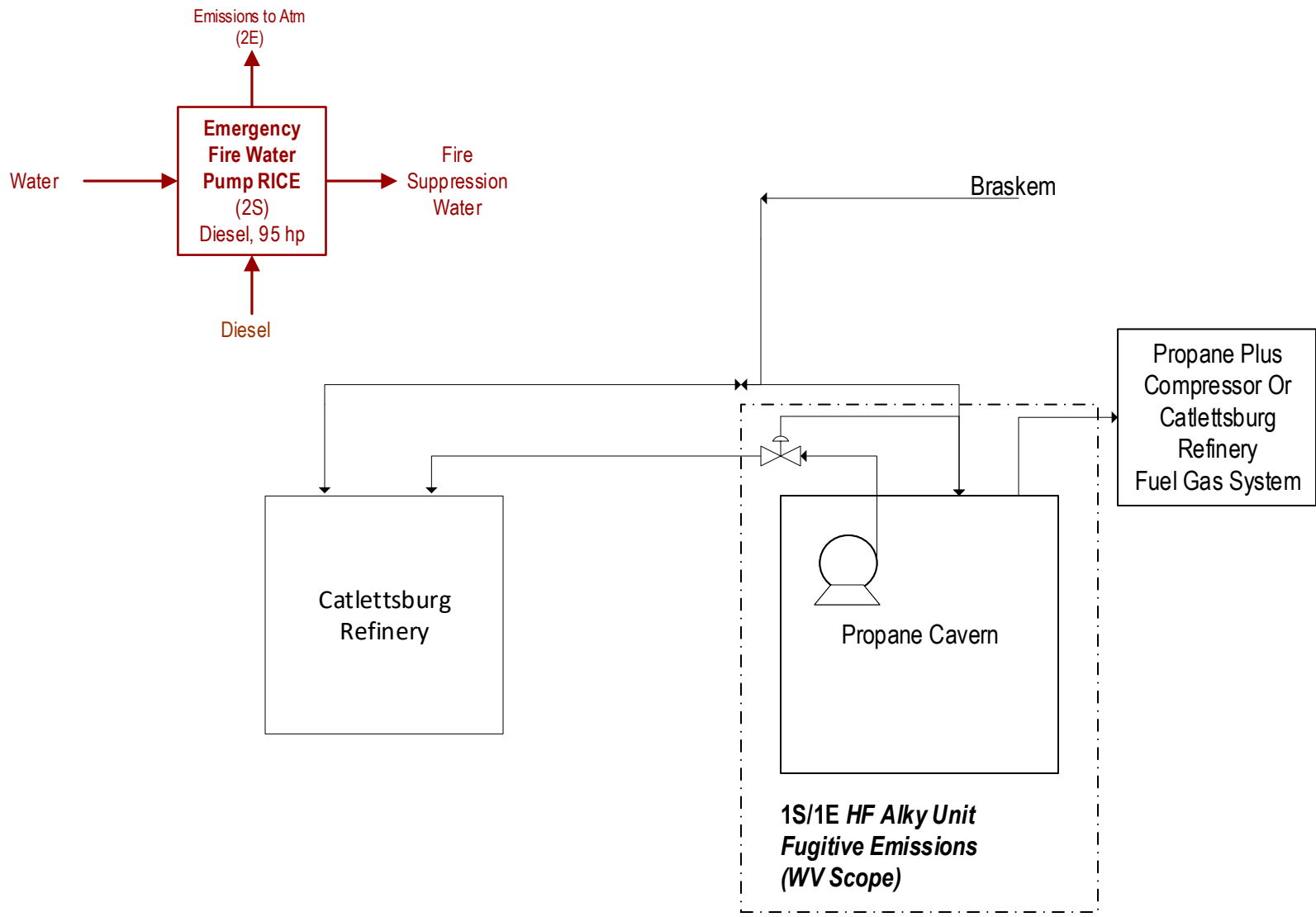
All Coordinates shown in UTM Coordinates,
Zone 17, NAD 83 Datum

Attachment B - Plot Plan



REV.	DATE	BY	DESCRIPTION	APPR.
 CATLETTSBURG REFINING LLC SUBSIDIARY OF MARATHON PETROLEUM COMPANY LLC				
DETAILED PLOT PLAN OF NEAL WV				
DRAWN: J. COOK		WO		
SCALE: 1"=100'		ENG. JOB	CK'D BY	
DATE: 04/14/14		DWG. V: \TRANS\42902		

Attachment C: Propane Cavern Process Flow Diagram



ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 1S	Emission unit name: HF Alky Unit Fugitive Emissions (WV Scope)	List any control devices associated with this emission unit: NA
---------------------------------------	--	---

Provide a description of the emission unit (type, method of operation, design parameters, etc.; for engines, please indicate compression or spark ignition, lean or rich, four or two stroke, non-emergency or emergency, certified or not certified, as applicable)
 Area source emissions from fugitive equipment leak components and dust from roadways in West Virginia associated with the Propane Cavern.

Manufacturer: NA	Model number: NA	Serial number: NA
----------------------------	----------------------------	-----------------------------

Construction date: MM/DD/YYYY August 1979 (start of construction)	Installation date: MM/DD/YYYY 4Q 1980 (Start of operation)	Modification date(s): MM/DD/YYYY NA
--	---	--

Design Capacity (examples: furnaces - tons/hr, tanks – gallons, boilers – MMBtu/hr, engines - hp):
NA

Maximum Hourly Throughput: NA	Maximum Annual Throughput: NA	Maximum Operating Schedule: 8760 hrs
---	---	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
--	--

Maximum design heat input and/or maximum horsepower rating: NA	Type and Btu/hr rating of burners: NA
--	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
 NA

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
NA			

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})	0.05	0.01
Particulate Matter (PM ₁₀)	0.49	0.1
Total Particulate Matter (TSP)	1.81	0.3
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)	1.56	6.81
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).
VOC - Protocol for Equipment Leak Emission Estimates (EPA 453/R-65-017), USEPA, November 1995, Table 2-2: Refinery Average Emission Factors
PM - AP-42 Section 13.2.2, 5th Edition, November 2006

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See attached pages.



Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See attached pages.

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

Emission Unit 1S

Condition Number	Term or Condition Summary	Method of Compliance
40 CFR 60.592a(a) and 45CSR16	The permittee shall comply with the requirements of 40 CFR 60.482-1a to 60.482-10a (Subpart VVa) as soon as practicable, but no later than 180 days after initial startup.	Monitoring. Reporting. Recordkeeping.
40 CFR 60.592a(b) and 45CSR16	The permittee may elect to comply with alternative leaks standards as provided in the standard.	No alternative leak standards have been applied.
40 CFR 60.482-1a(e) and 45CSR16	Equipment that the permittee designates as being in VOC service under the conditions specified in the standard and operating less than 300 hours/year is excluded from the requirements of 40 CFR 60.482-2a through 60.482-11a if it is identified as required.	Recordkeeping
40 CFR 60.482-1a (a)(1) and 45CSR16	Open-ended valves or lines shall be equipped with a cap, blind flange, plug, or second valve unless otherwise as provided in 40 CFR 60.482-1a(c) and conditions 4.1.8 and 4.1.9 of this permit.	Monitoring
40 C.F.R. §60.482-6a(a)(2) and 45CSR16	Open-ended lines shall be sealed at all times except during operations requiring process flow through the open-ended line or valve.	Monitoring
40 C.F.R. §60.482-6a(b) and 45CSR16	Lines equipped with a second valve shall be operated in a manner such that the valve on the process fluid is closed before the second valve is closed.	Monitoring
40 C.F.R. §60.482-6a(c) and 45CSR16]	When a double block-and-bleed system is used, the bleed valve or line may remain open during operations that require venting but shall comply with conditions 4.1.4 and 4.1.5 of this permit at all other times.	Monitoring
40 C.F.R. §60.482-6a(d) and 45CSR16	Open-ended lines or valves designed to open automatically in the event of a process upset are exempt from the requirements of conditions 4.1.4-4.1.7.	Recordkeeping
40 C.F.R. §60.482-6a(e) and 45CSR16]	Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in conditions 4.1.4-4.1.7 are exempt from the requirements of conditions 4.1.4-4.1.7.	Recordkeeping
40 C.F.R. §60.482-9a(b) and 45CSR16	Delay of repair will be allowed for equipment isolated from the process and does not remain in VOC service.	Recordkeeping

Emission Unit 1S

Condition Number	Term or Condition Summary	Method of Compliance
40 C.F.R. §60.482-9a(c) and 45CSR16]	Delay of repair for valves and connectors will be allowed if: a.The permittee demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and b. When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 40 C.F.R. §60.482-10a.	Recordkeeping
40 C.F.R. §60.482-9a(e) and 45CSR16	Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.	Recordkeeping
40 C.F.R. §60.482-9a(f) and 45CSR16	When delay of repair is allowed for a leaking pump, valve, or connector that remains in service, the pump, valve, or connector may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition.	Monitoring. Recordkeeping.
40 CFR 60.482-4a(c) and 45CSR16	Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed vent system as described in 40 CFR 482-10a is exempted from the requirements of 40 CFR 60.482-4a(a) and (b).	Recordkeeping
40 CFR 60.482-5a(a)-(b) and 45CSR16	Each sampling connections system shall be equipped with a closed-vent system, except as provided in 40 CFR 60.482-1a(c) and 40 CFR 60.482-5a(c). Each system shall be designed and operated to capture and transport all purged process fluid to a control device that complies with 40 CFR 60.482-10a.	Recordkeeping
40 CFR 60.482-7a(a)(1), (b), (c), (d), (e) and 45CSR16	Each valve shall be monitored to detect leaks by the methods specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482.7a(b) through (e) according to paragraphs (a) through (d) in Section 4.2.1 of the permit except as provided in 40 CFR. 60.482-7a(f), (g), and (h), 40 CFR 60.482-1a(c) and (f), 40 CFR 60.483-1a, and 40 CFR 60.483-2a.	Monitoring. Reporting. Recordkeeping.

Emission Unit 1S

Condition Number	Term or Condition Summary	Method of Compliance
40 CFR 60.482-7a(a)(2) and 45CSR16	A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to paragraphs (a) or (b), except for a valve that replaces a leaking valve and except as provided in 40 CFR 60.482-7a(f), (g), and (h), 40 CFR 60.482-1a(c), 40 CFR 60.483-1a, and 40 CFR §60.483-2a.	Monitoring. Reporting. Recordkeeping.
40 CFR 60.482-9a(a) and 45CSR16	Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit.	Monitoring. Reporting. Recordkeeping.
40 CFR 60.593a(g), 40 CFR 60.482-8a(a), and 45CSR16	If evidence of a potential leak is found by visible, audible, olfactory, or any other detection method at pumps, valves, and connectors in heavy liquid service and pressure relief devices in light liquid or heavy liquid service, the owner or operator shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485a(b) and shall comply with 40 CFR 60.482-8a(b) through (d).	Monitoring. Reporting. Recordkeeping.
40 CFR 60.592a(d) and 45CSR16	The permittee shall comply with the test methods in 40 CFR 60.485a, except as provided in 40 CFR 60.593a.	Recordkeeping
40 CFR 60.592a(e) and 45CSR16	The permittee shall comply with the recordkeeping provisions of 40 CFR 60.486a.	Recordkeeping
40 CFR 60.592a(e) and 45CSR16	The permittee shall comply with the reporting provisions of 40 CFR 60.487a.	Reporting. Recordkeeping.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 2S	Emission unit name: Firewater Pump Diesel Engine	List any control devices associated with this emission unit: None
---------------------------------------	--	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.; for engines, please indicate compression or spark ignition, lean or rich, four or two stroke, non-emergency or emergency, certified or not certified, as applicable)
 Base Cummins 170 HP diesel engine derated to 95HP by Cummins Firepower using an engine control module for emergency firefighting certified to NFPA requirements.

Manufacturer: Cummins Firepower	Model number: CFP5E-F10	Serial number: 74000793
---	-----------------------------------	-----------------------------------

Construction date: MM/DD/YYYY June 2016	Installation date: MM/DD/YYYY October 2016	Modification date(s): MM/DD/YYYY NA
--	---	--

Design Capacity (examples: furnaces - tons/hr, tanks – gallons, boilers – MMBtu/hr, engines - hp):
95 HP

Maximum Hourly Throughput: 5.1 gallons	Maximum Annual Throughput: 44,600 gallons	Maximum Operating Schedule: 8760
--	---	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 95 HP	Type and Btu/hr rating of burners: NA
---	---

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Diesel (#2 Fuel Oil)	15 ppm		138,700 BTU/gal

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.15	0.64
Nitrogen Oxides (NO _x)	0.53	2.33
Lead (Pb)	0	0
Particulate Matter (PM _{2.5})	0.02	0.08
Particulate Matter (PM ₁₀)	0.02	0.08
Total Particulate Matter (TSP)	0.02	0.08
Sulfur Dioxide (SO ₂)	0.19	0.85
Volatile Organic Compounds (VOC)	0.01	0.06
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
See detailed calculation for speciation		
Total HAPs	0.003	0.012
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).</p> <p>Emission Factors derived from:</p> <ul style="list-style-type: none"> - Cummins Fire Power ULSD EPA Tier 3 Emission Data (June 2014) - AP-42 Stationary Internal Combustion Sources: Table 3.3-1 Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines (10/96) - AP-42 Stationary Internal Combustions Sources: Table 3.3-2 Speciated Organic Compound Emission Factors for Uncontrolled Diesel Engines (10/96) 		

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (Note: Title V permit condition numbers alone are not the underlying applicable requirements). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See attached pages



Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See attached pages

Are you in compliance with all applicable requirements for this emission unit? Yes No

If no, complete the **Schedule of Compliance Form** as ATTACHMENT F.

Emission Unit 2S

Condition Number	Term or Condition Summary	Method of Compliance
40 CFR 60.4211(a) and 45CSR16	<p>a. Operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions;</p> <p>b. Change only those emission-related settings that are permitted by the manufacturer; and</p> <p>c. Meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as they apply to you.</p>	Recordkeeping.
40 CFR 60.4205(c), 40 CFR 60.4206, and 45CSR16	Maximum hourly emissions limits based on Table 4 of 40 CFR 60, Subpart IIII as specified in 40 CFR 60.4205(c)	Recordkeeping
40 CFR 60.4207(b) and 45CSR16	<p>If you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in § 60.4205(c), you must comply by purchasing an engine certified to the emission standards in § 60.4204(b), or § 60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 C.F.R. §60.4211(g).</p>	Recordkeeping
40 CFR 60.4207(b) and 45CSR16	<p>Beginning October 1, 2010, the permittee with stationary CI ICE with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.</p>	Recordkeeping

Emission Unit 2S

Condition Number	Term or Condition Summary	Method of Compliance
40 CFR 60.4211(f) and 45CSR16	<p>The emergency stationary ICE may be operated according to the requirements in 40 C.F.R. §60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 C.F.R. 60, Subpart IIII, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in 40 C.F.R. §§60.4211(f)(1) through (3), is prohibited. If the engine is not operated according to the requirements in 40 C.F.R. §60.4211(f)(1) through (3), the engine will not be considered an emergency engine under 40 C.F.R. 60, Subpart IIII and must meet all requirements for non-emergency engines.</p>	Recordkeeping
40 CFR 60.4211(g)(1) and 45CSR16	<p>If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows: If you are an owner or operator of a stationary CI internal combustion engine with maximum engine power less than 100 HP, you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.</p>	Recordkeeping
40 CFR 60.4209(a) and 45CSR16	<p>If you are the owner or operator of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install a non-resettable hour meter prior to startup of the engine.</p>	Monitoring

Emission Unit 2S

Condition Number	Term or Condition Summary	Method of Compliance
40 CFR 60.4208(h) and (i) and 45CSR16	<p>In addition to the requirements specified in §§ 60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in 40 C.F.R. §§60.4208(a) through (g) after the dates specified in 40 C.F.R. §§60.4208 (a) through (g). The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.</p>	Recordkeeping
40 CFR 60.4212 and 45CSR16	<p>Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (e) of this section.</p>	Recordkeeping
40 CFR 60.4214(b) and 45CSR 16	<p>If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.</p>	Recordkeeping

ATTACHMENT I

SUPPORTING EMISSION CALCULATIONS/ESTIMATIONS

Summary

<u>Pollutant</u>	<u>lb/hr</u>	<u>tpy</u>
VOC	1.57	6.87
NOx	0.53	2.33
CO	0.15	0.64
PM	1.83	0.41
PM10	0.51	0.17
PM2.5	0.07	0.09
SO2	0.19	0.85
Benzene	6.59E-04	2.89E-03
Toluene	2.89E-04	1.27E-03
Xylenes	2.01E-04	8.83E-04
Butadiene	2.76E-05	1.21E-04
Formaldehyde	8.33E-04	3.66E-03
Acetaldehyde	5.48E-04	2.40E-03
Acrolein	6.53E-05	2.87E-04
Naphthalene	5.99E-05	2.63E-04
Polycyclic Aromatic Hydrocarbons	5.88E-05	2.58E-04
Total HAPs	0.003	1.20E-02

Firewater Diesel Pump Engine Emissions

Cummins CFP5E-F10 Fire Pump

Driver

4 Cycle; 4 Cylinder

1760 RPM
 95 HP
 5.1 Gal/hr fuel consumption
 138700 btu/gal diesel
 0.71 mmbtu/hr
 8760 hours

Chemical	Source	g/HP-hr	lb/HP-hr	lb/mmbtu	TPY	lb/hr
VOC	Manufacturer1	0.062	0.00014		0.06	0.01
NOx	Manufacturer1	2.544	0.00561		2.33	0.53
CO	Manufacturer1	0.694	0.00153		0.64	0.15
PM	Manufacturer1	0.088	0.00019		0.08	0.02
SO2	AP-422		0.00205		0.85	0.19
Benzene	AP-423			9.33E-04	2.89E-03	6.59E-04
Toluene	AP-423			4.09E-04	1.27E-03	2.89E-04
Xylenes	AP-423			2.85E-04	8.83E-04	2.01E-04
Butadiene	AP-423			3.91E-05	1.21E-04	2.76E-05
Formaldehyde	AP-423			1.18E-03	3.66E-03	8.33E-04
Acetaldehyde	AP-423			7.76E-04	2.40E-03	5.48E-04
Acrolein	AP-423			9.25E-05	2.87E-04	6.53E-05
Naphthalene	AP-423			8.48E-05	2.63E-04	5.99E-05
Polycyclic Aromatic Hydrocarbons ⁴	AP-423			8.33E-05	2.58E-04	5.88E-05

1 Cummins Fire Power ULSD EPA Tier 3 Emission Data (June 2014)

2 Stationary Internal Combustion Sources: Table 3.3-1 Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines (10/96)

3 Stationary Internal Combustion Sources: Table 3.3-2 Speciated Organic Compound Emission Factors for Uncontrolled Diesel Engines (10/96)

4 PAH excludes Naphthalene

Roadway Fugitive Dust

Parameter	
Vehicle Miles (assumed constant)	
Miles per Round Trip	0.5
Round Trips per Week	28
Weeks per Year	52
Round Trips per Year	728
Vehicle Miles per Year	364
Vehicle Miles in any one hour	1
Emission Factors	
PM 2.5 Final Emission Factor (lb/Vehicle Miles Travelled)	0.049
PM 10 Final Emission Factor (lb/Vehicle Miles Travelled)	0.490
PM 30 Final Emission Factor (lb/Vehicle Miles Travelled)	1.814
PM Emissions (tpy)	
Total PM 2.5 Total Particulate Emissions From Vehicular Dust	0.01
Total PM 10 Total Particulate Emissions From Vehicular Dust	0.1
Total PM 30 Total Particulate Emissions From Vehicular Dust	0.3
PM Emissions (pph)	
Total PM 2.5 Total Particulate Emissions From Vehicular Dust	0.05
Total PM 10 Total Particulate Emissions From Vehicular Dust	0.49
Total PM 30 Total Particulate Emissions From Vehicular Dust	1.81

SILT CONTENT

Assumed Silt Content 6.4

<u>Comparison of gravel vs. dirt</u>			<u>Comparison of East vs. West</u>		
East	S	M	Gravel	--	--
West		--	Dirt	--	M
Overall	S	--	Overall	--	M

In keeping with the findings summarized above, it was decided to provide separate default silt values for gravel and dirt roads, for use throughout the United States (i.e., no distinction between east and west).

<u>Mean Silt Content</u>	
Gravel Roads	6.4 percent
Dirt Roads	11 percent

**Emission Factor Documentation
for AP-42 Section 13.2.2, Unpaved
Roads - Final Report Section 4-29**

Specification of an appropriate default moisture content for a dry road proved more problematic. The overall mean moisture content in publicly accessible road data set was found as 1.1 percent. Although this value potentially could have provided the default, it was believed that 1.1 percent did not adequately represent the extremes of the data set. The data base contained moisture contents approximately 0.1 to 0.3 percent for roads even in what are not considered "dry" parts of the nation. For example, four samples collected for an emission inventory of Grants Pass, Oregon, ranged from 0.14 to 0.38 percent in moisture content, with a mean value of 0.24 percent. The four Raleigh, North Carolina ("BJ") tests presented in Table 4-32 are associated with moisture contents between 0.07 and 0.1 percent. (In fact, the Raleigh test series provided the lowest moisture contents in the entire data set. By comparison, moisture contents for the desert [the Arizona, Palm Springs and Reno tests in References 6, 1 and 2, respectively] ranged from 0.17 to 0.48 percent.)

VEHICLE WEIGHT

Assumed Mean Vehicle Weight (tons) 2.3

2015 Ford F-150 / Curb weight

4,050 to 4,930 lbs



Assumed Mean Man Weight (tons) 0.10

How much does the average American man weigh? The average American man 20 years old and up weighs **197.9 pounds**. The average waist circumference is 40.2 inches, and the average height is just over 5 feet 9 inches (about 69.1 inches) tall.



<https://www.healthline.com> · Wellness Topics · Nutrition

Assumed Total Vehicle Weight (tons) 2.4

ROUND TRIP DISTANCES

Assumed Daily Round Trips 4

Round Trip Distance - Propane Cavern (Miles) 1

Propane Cavern Round Trip Graphic



PRECIPITATION DAYS

Assumed Precipitation Days > 0.01 inches **135**

Used lower number to account for dry years.

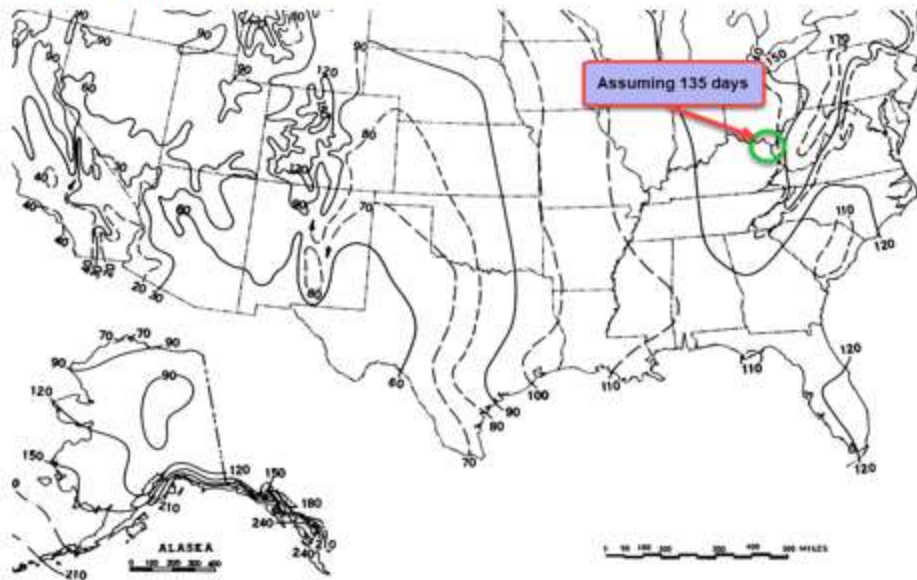


Figure 13.2.2-1. Mean number of days with 0.01 inch or more of precipitation in United States.

EMISSION FACTOR

PM 2.5 Base Emission Factor	0.078
PM 10 Base Emission Factor	0.777
PM 30 Base Emission Factor	2.878

Table 13.2.2-2. CONSTANTS FOR EQUATIONS 1a AND 1b

Constant	Industrial Roads (Equation 1a)			Public Roads (Equation 1b)		
	PM-2.5	PM-10	PM-30*	PM-2.5	PM-10	PM-30*
k (lb/VMT)	0.15	1.5	4.9	0.18	1.8	6.0
a	0.9	0.9	0.7	1	1	1
b	0.45	0.45	0.45	-	-	-
c	-	-	-	0.2	0.2	0.3
d	-	-	-	0.5	0.5	0.3
Quality Rating	B	B	B	B	B	B

* Assumed equivalent to total suspended particulate matter (TSP)
 "-" = not used in the emission factor equation

Table 13.2.2-3. RANGE OF SOURCE CONDITIONS USED IN DEVELOPING EQUATION 1a AND 1b

Emission Factor	Surface Silt Content, %	Mean Vehicle Weight		Mean Vehicle Speed		Mean No. of Wheels	Surface Moisture Content, %
		Mg	ton	km/hr	mph		
Industrial Roads (Equation 1a)	1.8-25.2	1.8-260	2-290	8-69	5-43	4-17*	0.03-13
Public Roads (Equation 1b)	1.8-35	1.4-2.7	1.5-3	16-88	10-55	4-4.8	0.03-13

* See discussion in text.

For vehicles traveling on unpaved surfaces at industrial sites, emissions are estimated from the following equation:

AP-42 Section 13.2.2-4

$$E = k (s/12)^a (W/3)^b \quad (1a)$$

Where:

- a = constant (see Table 13.2.2-2)
- b = constant (see Table 13.2.2-2)
- k = constant (lb/Vehicle Miles Traveled - see Table 13.2.2-2)
- s = Surface material silt content (%)
- W = Weight of vehicle (tons)

PM 2.5 Rain Corrected Emission Factor	0.049
PM 10 Rain Corrected Emission Factor	0.490
PM 30 Rain Corrected Emission Factor	1.814

Rain as natural mitigation

$$E_{\text{nat}} = E [(365 - P)/365] \quad (2)$$

where:

E_{nat} = annual size-specific emission factor extrapolated for natural mitigation, lb/VMT

E = emission factor from Equation 1a or 1b

P = number of days in a year with at least 0.254 mm (0.01 in) of precipitation (see

below)

Wear & Tear Emission Factor 0.0005

Table 13.2.2-4. EMISSION FACTOR FOR 1980'S VEHICLE FLEET EXHAUST, BRAKE WEAR AND TIRE WEAR

Particle Size Range ^a	C, Emission Factor for Exhaust, Brake Wear and Tire Wear ^b lb/VMT
PM _{2.5}	0.00036
PM ₁₀	0.00047
PM ₃₀ ^c	0.00047

^a Refers to airborne particulate matter (PM-x) with an aerodynamic diameter equal to or less than x micrometers.

^b Units shown are pounds per vehicle mile traveled (lb/VMT).

^c PM-30 is sometimes termed "suspendable particulate" (SP) and is often used as a surrogate for TSP.

PM 2.5 Total Emission Factor (lb/VMT) 0.049
PM 2.5 Total Emission Factor (lb/VMT) 0.490
PM 2.5 Total Emission Factor (lb/VMT) 1.814

VOC Potential to Emit from Equipment Leaks

Component Type	Service Type	VOC Emission Factor ¹		Component Additions (#)	Uncontrolled VOC Emission Rate ²		LDAR Control Efficiency ³ (%)	Controlled VOC Emission Rate ²	
		(kg/hr/comp.)	(lb/hr/comp.)		(lb/hr)	(tpy)		(lb/hr)	(tpy)
Valves	Gas/Vapor	0.02680	0.05908	54	3.19	13.97	92%	0.26	1.12
Valves	Light Liquid	0.01090	0.02403	267	6.42	28.10	88%	0.77	3.37
Valves	Heavy Liquid	0.00230	0.00507	0	0.00	0.00	0%	0.00	0.00
Connectors	Gas/LL	0.00025	0.00055	963	0.53	2.32	0%	0.53	2.32
Connectors	Heavy Liquid	0.00025	0.00055	0	0.00	0.00	0%	0.00	0.00
Pumps	Light Liquid	0.11400	0.25132	0	0.00	0.00	75%	0.00	0.00
Pumps	Heavy Liquid	0.02100	0.04630	0	0.00	0.00	0%	0.00	0.00
Compressors	Gas/Vapor	0.63600	1.40213	0	0.00	0.00	0%	0.00	0.00
Pressure Relief Valves	Gas/Vapor	0.16000	0.35274	0	0.00	0.00	0%	0.00	0.00
Sampling connections	All	0.01500	0.03307	0	0.00	0.00	0%	0.00	0.00
Agitators	All	0.11400	0.25132	0	0.00	0.00	0%	0.00	0.00
TOTAL					10.14	44.40		1.56	6.81

¹ Emission factors are from Protocol for Equipment Leak Emission Estimates (EPA 453/R-65-017), U.S. EPA, November 1995, "Table 2-2: Refinery Average Emission Factors."

² Annual emission rates assume the components for the project are in service 8,760 hours per year.

³ Control efficiencies for light liquid and gas/vapor valves, connectors, and light liquid pumps are taken from Protocol for Equipment Leak Emission Estimates (EPA-453/R-95-017), U.S. EPA, November 1995, "Table G-2: Determination of LDAR Control Effectiveness at Refinery Process Units" for HON LDAR rule (40 CFR Part 63 Subpart H) being developed at the time the protocol was drafted by EPA. Units subject to GGGa/VVa do not monitor connectors, therefore, no efficiency factor is claimed for those units.