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1.0 Emission Units and Active R13, R14, and R19 Permits

1.1 Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
CDU	CDU	Crude Distillation Unit	1972/2012/ 2015	839,500 bbls/mo	00A-01
001-01	H-101R	CDU Atmospheric Heater; refinery fuel gas/natural gas blend	2012	54.5 MMBtu/hr	N/A
001-02	H-102R	CDU Vacuum Heater; refinery fuel gas/natural gas blend	2012	29.4 MMBtu/hr	N/A
002-01	H-201	PDR Heater; refinery fuel gas/natural gas blend	1972	6.6 MMBtu/hr	N/A
003-01	MEK-TOL	Solvent Dewaxing Unit	1972	N/A	N/A
004-01	H-500S	H500 Series Heaters Unifiner/Platformer Unit; refinery fuel gas/natural gas blend	1972/2013/ 2015	59.6 MMBtu/hr	N/A
004-02	H-501R	Unifiner Charge Heater	2013	11.5 MMBtu/hr	N/A
005-01	H-600S	H600 Series Heaters, ISOMAX Unit; refinery fuel gas/natural gas blend	1972	41.6 MMBtu/hr	N/A
005-02	H-441	Hydrogen Plant Heater; natural gas	1972	12.3 MMBtu/hr	N/A
006-01	H-701	VFU Heater; refinery fuel gas/natural gas blend	1983	12.1 MMBtu/hr	N/A
007-01	Boiler A	Boiler A; refinery fuel gas/natural gas blend	1972	159.50 MMBtu/hr	N/A
007-02	Boiler B	Boiler B; refinery fuel gas/natural gas blend	1972	159.50 MMBtu/hr	N/A
007-03	Boiler C	Boiler C; refinery fuel gas/natural gas blend	2000	95 MMBtu/hr	N/A
009-01	T Load	Truck Loading	1972/2012/ 2013	397.8 MMgal/yr	00A-02*
<u>Rail-UL</u>	<u>Rail-UL</u>	<u>Rail Car Unloading</u>	<u>2019</u>	<u>800 gpm</u>	<u>N/A</u>
009-02	MLD	Marine Barge Loading	1972/2012	460.7 MMgal/yr	00A-04**
00A-01	F1	Main Flare	1972	N/A	N/A
00A-03	F2	Sour Gas Flare	1972	N/A	N/A
00A-02	OXIDIZER	Thermal Oxidizer - 98.7% Min Efficiency	1994/2012/ 2013	17,346 MMBtu/yr	N/A
00A-04	MLDOX	Barge Loading Thermal Oxidizer - 98% Min Eff	2012	59.0 MMBtu/hr	N/A
00B-01	WWT	Wastewater Treatment Plant	1972/1997	600 gpm	00A-03
00B-02	EQLEAKS	Equipment Leak Fugitives	N/A	N/A	N/A
00D-01	Dehy Htr	Dehydration Heater	1991	0.59 MMBtu/hr	N/A
00D-02	Still	Glycol Dehydration Still	1991	N/A	N/A
EPN 01	H-901	DHT Heater	2005	27.5 MMBtu/hr	N/A
EPN 03	H-1101	Hydrogen Plant Heater	2005	38.8 MMBtu/hr	N/A

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
FWPUM P1-00P-01	FWPUMP1	Diesel Firewater Pump at River Dock	200 5 6	210 350 hp	N/A
FWPUM P2-00P-02	FWPUMP2	Diesel Firewater Pump at Boiler House	1993	265 350 hp	N/A

Tanks

4000	TK-4000	External floating roof; crude oil; mechanical shoe	1992/2012	2,310,000 gallons	N/A
4001	TK-4001	External floating roof; crude oil; mechanical shoe	1973/2012	2,310,000 gallons	N/A
4002	TK-4002	External floating roof; heavy products or kerosene; mechanical shoe	1970	2,310,000 gallons	N/A
4003	TK-4003	External floating roof; heavy products or kerosene; mechanical shoe	1970	2,310,000 gallons	N/A
4004	TK-4004	External floating roof; gasoline; mechanical shoe	1971/2018	1,260,000 gallons	N/A
4005	TK-4005	External floating roof; gasoline; mechanical shoe	1971/2018	1,260,000 gallons	N/A
4006	TK-4006	External floating roof; gasoline; mechanical shoe	1971/2018	1,260,000 gallons	N/A
4007	TK-4007	Fixed roof; heavy products	1971	2,310,000 gallons	N/A
4008	TK-4008	Fixed roof; heavy products	1970	1,260,000 gallons	N/A
4009	TK-4009	Fixed roof; heavy products or kerosene	1971	1,260,000 gallons	N/A
4010	TK-4010	Fixed roof; heavy products	1970	1,260,000 gallons	N/A
4011	TK-4011	Fixed roof; heavy products or kerosene	1971	1,239,568 gallons	N/A
4012	TK-4012	Internal floating roof; gasoline; vapor mounted	1971	630,000 gallons	N/A
4013	TK-4013	Internal floating roof; gasoline; vapor mounted	1971	630,000 gallons	N/A
4014	TK-4014	External floating roof; gasoline; mechanical shoe	1971/2013	315,000 gallons	N/A
4015	TK-4015	External floating roof; gasoline; mechanical shoe	1971/2013	315,000 gallons	N/A
4016	TK-4016	External floating roof; gasoline; mechanical shoe	1971	315,000 gallons	N/A
4017	TK-4017	Fixed roof; heavy products	1971	840,000 gallons	N/A
4018	TK-4018	Fixed roof; heavy products	1971/2000	704,970 gallons	N/A
4019	TK-4019	Fixed roof; heavy products	1971	704,970 gallons	N/A
4020	TK-4020	Fixed roof; heavy products	1971	840,000 gallons	N/A
4021	TK-4021	Fixed roof; heavy products	1971	840,000 gallons	N/A
4022	TK-4022	Fixed roof; heavy products	1971	571,200 gallons	N/A
4023	TK-4023	Fixed roof; heavy products	1971	571,200 gallons	N/A
4024	TK-4024	Fixed roof; heavy products	1970	840,000 gallons	N/A
4025	TK-4025	Fixed roof; heavy products	1970	840,000 gallons	N/A
4026	TK-4026	Fixed roof; heavy products	1970	840,000 gallons	N/A

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
4062	TK-4062	Internal floating roof; light crude oil with vapor pressure < 11.0 psia; mechanical shoe	2008/2012	5,040,000 gallons	N/A
4063	TK-4063	Internal floating roof; light crude oil with vapor pressure < 11.0 psia; mechanical shoe	2012	5,040,000 gallons	N/A
4066	TK-4066	Fixed roof; Biodiesel Tank	2011	40,000 gallons	N/A
4069	TK-4069	Fixed roof; Biodiesel Tank	2017	126,000 gallons	N/A
4070	TK-4070	Internal floating roof; ethanol; mechanical shoe	2018	630,000 gallons	N/A
4071	TK-4071	External floating roof; gasoline; mechanical shoe	2018	1,260,000 gallons	N/A
4072	TK-4072	Fixed roof; feedstock	2018	1,260,000 gallons	N/A
4103	TK-4103	Fixed roof; heavy products	1970	127,000 gallons	N/A
4104	TK-4104	Fixed roof; heavy products	1970	127,000 gallons	N/A
<u>V-4002</u>	<u>V-4002</u>	<u>NGL Bullet Tank</u>	<u>2016</u>	<u>10,984 ft³</u>	<u>fuel gas system</u>
<u>V-4003</u>	<u>V-4003</u>	<u>NGL Bullet Tank</u>	<u>2016</u>	<u>10,984 ft³</u>	<u>fuel gas system</u>
00A-03	CARBONBED	Carbon Bed Adsorber	2002	6,000 cfm	N/A

Process Vessels

303	TK-303	Fixed roof; MEK	1970	7,875 gallons	N/A
304	TK-304	Fixed roof; Toluene	1970	7,875 gallons	N/A
NS-FUG	NS-FUG	Naphtha Splitter Fugitives	2011	N/A	N/A
ISOM	ISOM	Processing Unit: Benzene Reduction	2012	21.6 MMgals/yr	N/A
ADU	NH3OX	Ammonia Destruction Unit	2015	N/A	00A-05
00A-05	NH3OX	Ammonia Destruction Unit Thermal Oxidizer - 99.9% DRE	2015	6.6 MMBtu/hr	N/A
ADUFUG	ADUFUG	Ammonia Destruction Unit Fugitives	2015	N/A	N/A
PL-FUG	PL-FUG	Platformer Expansion Fugitives	2015	N/A	N/A
YNGL-FUG	YNGL-FUG	Y-Grade NGL Fugitives AD	2015	N/A	N/A

* Control Device for Gasoline Loading Only

** Control Device for Gasoline and Light Crude Oil Loading Only

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
R13-2334ADAB	<u>October 11, 2019</u> October 16, 2018

- 3.1.8. **Risk Management Plan.** This stationary source, as defined in 40 CFR § 68.3, is subject to Part 68. This stationary source has submitted a risk management plan (RMP) by the date specified in 40 CFR § 68.10. This stationary source shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 CFR Part 70 or 71.
[40 CFR 68]
- 3.1.9. **Sulfur Dioxide.** The Company agrees that it shall not operate any source of sulfur dioxide emissions unless such source is in compliance with the Code, terms of CO-SIP-95-1, and any additional or more stringent provisions of 45CSR10 - "To Prevent and Control Air Pollution From the Emissions of Sulfur Oxides".
[CO-SIP-95-1 - IV.1. (SIPed)]
- 3.1.10. **Sulfur Dioxide.** The Company agrees that at all times, including periods of source start-up, shut down, and malfunction, that it will, to the extent practicable, maintain and operate all sources of sulfur dioxide emissions, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.
[CO-SIP-95-1 - IV.2. (SIPed)]
- 3.1.11. **Operation and Maintenance of Air Pollution Control Equipment.** The permittee shall, to the extent practicable, install, operate, and maintain all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.
[45CSR13: Permit R13-2334, 4.1.5., 45CSR§13-5.11.]
- 3.1.12. The permitted facility shall be constructed and operated in accordance with the plans and specifications filed in Permit Application R13-2334 through R13-2334~~ADY~~ and any modifications, administrative updates, or amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
[45CSR13: Permit R13-2334, 2.5.1.]

3.2. Monitoring Requirements

- 3.2.1. None.

3.3. Testing Requirements

- 3.3.1. **Stack testing.** As per provisions set forth in this permit or as otherwise required by the Secretary, in accordance with the West Virginia Code, underlying regulations, permits and orders, the permittee shall conduct test(s) to determine compliance with the emission limitations set forth in this permit and/or established or set forth in underlying documents. The Secretary, or his duly authorized representative, may at his option witness or conduct such test(s). Should the Secretary exercise his option to conduct such test(s), the operator shall provide all necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment and the required safety equipment, such as scaffolding, railings and ladders, to comply with generally accepted good safety practices. Such tests shall be conducted in accordance with the methods and procedures set forth in this permit or as otherwise approved or specified by the Secretary in accordance with the following:
- a. The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with 40 CFR Parts 60, 61, and

- 3.5.3. **Submissions.** Except for the electronic submittal of the annual compliance certification and semi-annual monitoring reports to the DAQ and USEPA as required in 3.5.5 and 3.5.6 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class, or by private carrier with postage prepaid to the address(es), or submitted in electronic format by e-mail as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

If to the DAQ:

Director
WVDEP
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
~~Phone: 304/926-0475~~
~~FAX: 304/926-0478~~

If to the US EPA:

Section Chief
Associate Director
U. S. Environmental Protection Agency, Region III
Office of Air Enforcement and Compliance Assistance Assurance Division Air Section (3AP20-3ED21)
U. S. Environmental Protection Agency Region III
1650 Arch Street
Philadelphia, PA 19103-2029

DAQ Compliance and Enforcement¹:

DEPAirQualityReports@wv.gov

¹ For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, Notice of Compliance Status reports, Initial Notifications, etc.

- 3.5.4. **Certified emissions statement.** The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. [45CSR§30-8.]
- 3.5.5. **Compliance certification.** The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual certification shall be submitted to the DAQ and USEPA on or before March 15 of each year, and shall certify compliance for the period ending December 31. ~~The annual certification to the USEPA shall be submitted in electronic format only. It shall be submitted by e-mail to the following address: R3_APD_Permits@epa.gov. The permittee shall maintain a copy of the certification on site for five (5) years from submittal of the certification. The annual certification shall be submitted in electronic format by e-mail to the following addresses:~~

DAQ:

DEPAirQualityReports@wv.gov

US EPA:

R3_APD_Permits@epa.gov

[45CSR§30-5.3.e.]

- 3.5.6. **Semi-annual monitoring reports.** The permittee shall submit reports of any required monitoring on or before September 15 for the reporting period January 1 to June 30 and on or before March 15 for the

reporting period July 1 to December 31. All instances of deviation from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with 45CSR§30-4.4. The semi-annual monitoring reports shall be submitted in electronic format by e-mail to the following address:

DAQ:
DEPAirQualityReports@wv.gov

[45CSR§30-5.1.c.3.A.]

3.5.7. **Emergencies.** For reporting emergency situations, refer to Section 2.17 of this permit.

3.5.8. **Deviations.**

a. In addition to monitoring reports required by this permit, the permittee shall promptly submit supplemental reports and notices in accordance with the following:

1. Any deviation resulting from an emergency or upset condition, as defined in 45CSR§30-5.7., shall be reported by telephone or telefax within one (1) working day of the date on which the permittee becomes aware of the deviation, if the permittee desires to assert the affirmative defense in accordance with 45CSR§30-5.7. A written report of such deviation, which shall include the probable cause of such deviations, and any corrective actions or preventative measures taken, shall be submitted and certified by a responsible official within ten (10) days of the deviation.

2. Any deviation that poses an imminent and substantial danger to public health, safety, or the environment shall be reported to the Secretary immediately by telephone or telefax. A written report of such deviation, which shall include the probable cause of such deviation, and any corrective actions or preventative measures taken, shall be submitted by the responsible official within ten (10) days of the deviation.

3. Deviations for which more frequent reporting is required under this permit shall be reported on the more frequent basis.

4. All reports of deviations shall identify the probable cause of the deviation and any corrective actions or preventative measures taken.

[45CSR§30-5.1.c.3.C.]

b. The permittee shall, in the reporting of deviations from permit requirements, including those attributable to upset conditions as defined in this permit, report the probable cause of such deviations and any corrective actions or preventive measures taken in accordance with any rules of the Secretary.

[45CSR§30-5.1.c.3.B.]

3.5.9. **New applicable requirements.** If any applicable requirement is promulgated during the term of this permit, the permittee will meet such requirements on a timely basis, or in accordance with a more detailed schedule if required by the applicable requirement.

[45CSR§30-4.3.h.1.B.]

3.6. Compliance Plan

3.6.1. None.

Pollutant	Emission Point ID									
	F1 (pilot light)		F2 (pilot light)		TLOAD & OXIDIZER		MLD & MLDOX		NH3OX	
	TPM*	TPY	TPM*	TPY	TPM*	TPY	TPM*	TPY	TPM*	TPY
Total HAPs					0.32	3.22	0.13	1.3		
Benzene					0.03	0.32	0.01	0.08		

Pollutant	Emission Point ID			
	Railcar Unloading		Air Separator / Recovery Drum	
	TPM*	TPY	TPM*	TPY
<u>VOC</u>	<u>1.46</u>	<u>17.55</u>	<u>0.36</u>	<u>4.35</u>
<u>Hexane</u>	<u>0.04</u>	<u>0.51</u>	<u>0.01</u>	<u>0.08</u>
<u>Benzene</u>	<u>0.04</u>	<u>0.49</u>	<u>0.01</u>	<u>0.08</u>
<u>Isooctane</u>	<u>0.01</u>	<u>0.04</u>	<u>0.01</u>	<u>0.01</u>
<u>Toluene</u>	<u>0.02</u>	<u>0.26</u>	<u>0.01</u>	<u>0.04</u>
<u>Ethylbenzene</u>	<u>0.01</u>	<u>0.04</u>	<u>0.01</u>	<u>0.01</u>
<u>Xylene</u>	<u>0.01</u>	<u>0.11</u>	<u>0.01</u>	<u>0.02</u>
<u>Total HAPs</u>	<u>0.12</u>	<u>1.45</u>	<u>0.02</u>	<u>0.23</u>

*TPM = Tons per month

[45CSR13 - Permit R13-2334 - 5.1.1.]

5.1.10. The permittee shall not exceed the annual limits in the table below that correspond to the emission limits established in requirement 5.1.9. Annual quantities are based on a 12-month rolling basis.

Throughput Limits		
Location	Product	Quantity (Mgal/year)
Marine Loading	Gasoline	62031
	Light Crude Oil (including oil with a vapor pressure up to 11.0 psia)	306600
	Diesel	37065
	Kerosene	46000
	Lube Oil/ Heavy Products	30660
Truck Loading	Diesel	134904
	Gasoline	134904
	No. 6 Fuel Oil	13650
	Kerosene	15330
	Lube Oil/ Heavy Products	136920
<u>Railcar Unloading</u>	<u>Waxy Crude</u>	<u>38,325</u>
	<u>Total Crude (Waxy & Penn)</u>	<u>76,650</u>

[45CSR13 - Permit R13-2334 - 5.1.2.]

- 5.1.11. The Main Flare [F1] is an affected facility as that term is used in 40 CFR Part 60 and is subject to the requirements of 40 CFR Part 60, Subparts A and Ja. The permittee shall comply with the NSPS obligation to implement good air pollution control practices as required by 40 CFR §60.11(d) and with the applicable work practice standards of NSPS, Subpart Ja. **[45CSR16; 40 CFR §60.103a; 45CSR13: Permit R13-2334 - 5.1.13. and 5.1.15,]**
- 5.1.12. The Sour Gas Flare [F2] is an affected facility as that term is used in 40 CFR Part 60 and is subject to the requirements of 40 CFR Part 60, Subparts A and J. The permittee shall comply with the NSPS obligation to implement good air pollution control practices as required by 40 CFR §60.11(d). **[45CSR13: Permit R13-2334, 5.1.14.]**
- 5.1.13. Marine Loading.
- a. During marine loading of gasoline and light crude oil, VOC emissions shall be controlled by the Marine Barge Loading Thermal Oxidizer [MLDOX/00A-04]. MLDOX shall be operated within the operating parameters established during testing and shall be maintained to achieve a minimum control efficiency of 98% for VOCs.
- b. All vessels loaded from the Marine Loading Dock (MLD) shall be submerged filled. **[45CSR13: Permit R13-2334, 5.1.4.]**
- 5.1.14. Emissions from the Ammonia Destruction Unit (ADU) shall be routed to the ADU Thermal Oxidizer [NH3OX/00A-05] at all times that the ADU is in operation. The thermal oxidizer [NH3OX] shall be operated within the operating parameters established during testing and shall be maintained to achieve a minimum control efficiency of 99.9% for VOCs. **[45CSR13: Permit R13-2334, 5.1.5.]**
- 5.1.15. No refined products (e.g. gasoline, naphtha, ethanol, diesel) shall be received via rail.**
[45CSR13: Permit R13-2334, 5.1.8.]

5.2. Monitoring Requirements

- 5.2.1. The permittee shall monitor the PM emissions by conducting visible emissions checks in accordance with Section 4.2.1. of this permit. **[45CSR13 - R13-2334 - 5.2.1.]**
- 5.2.2. To determine compliance with the emission rate limits set forth in Section 5.1.9., the permittee shall monitor hours of operation for pilot and non-pilot conditions of the Main Flare [F1] and the Ammonia Destruction Unit Thermal Oxidizer [NH3OX]. Compliance with yearly limits shall be based on a 12-month rolling basis. **[45CSR13 - Permit R13-2334 - 5.2.2.]**
- 5.2.3. To determine compliance with the annual emission rate limits set forth in Section 5.1.9. for the OXIDIZER and MLDOX, the permittee may estimate emissions using the monthly loading records, along with the appropriate emission factors for loading losses from AP-42, Chapter 5.2 (7/08). Compliance with the yearly limit shall be based on a 12-month rolling total in accordance with Section 2.1.4. **[45CSR13 - Permit R13-2334 - 5.2.3.]**
- 5.2.4. The permittee shall meet all applicable monitoring requirements of 40 CFR § 60.13 for MLDOX, OXIDIZER, and NH3OX as follows:
- a. For the purposes of 40 CFR § 60.13, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under 40 CFR Part 60 Appendix B and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, 40 CFR Part 60 Appendix F, unless otherwise specified in an applicable subpart or by the Administrator. 40 CFR Part 60 Appendix F is applicable December 4, 1987.
- b. All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under 40 CFR § 60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.
- c. If the permittee of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under 40 CFR § 60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in 40 CFR Part 60 Appendix B, Performance Specification 1, before the performance test required

- i. The owner or operator shall install, operate and maintain each H₂S monitor according to Performance Specification 7 of appendix B to part 60. The span value for this instrument is 300 ppmv H₂S.
- ii. The owner or operator shall conduct performance evaluations for each H₂S monitor according to the requirements of 40 CFR §60.13(c) and Performance Specification 7 of appendix B to part 60. The owner or operator shall use Method 11, 15, or 15A of appendix A-5 to part 60 or Method 16 of appendix A-6 to part 60 for conducting the relative accuracy evaluations. The method ANSI/ASME PTC 19.10-1981, "Flue and Exhaust Gas Analyses," (incorporated by reference—see §60.17) is an acceptable alternative to EPA Method 15A of appendix A-5 to part 60.
- iii. The owner or operator shall comply with the applicable quality assurance procedures in appendix F to part 60 for each H₂S monitor.
- iv. Flares having a common source of fuel gas may be monitored at only one location, if monitoring at this location accurately represents the concentration of H₂S in the fuel gas being burned in the respective fuel gas combustion devices or flares.
- v. The owner or operator of a flare subject to 40 CFR 60.103(c) through (e) may use the instrument required in 40 CFR §60.107a(e)(1) to demonstrate compliance with the H₂S concentration requirement in 40 CFR §60.103a(h) if the owner or operator complies with the requirements of 40 CFR §§60.107a (e)(1)(i) through (iv) and if the instrument has a span (or dual span, if necessary) capable of accurately measuring concentrations between 20 and 300 ppmv. If the instrument required in 40 CFR §60.107a (e)(1) is used to demonstrate compliance with the H₂S concentration requirement, the concentration directly measured by the instrument must meet the numeric concentration in 40 CFR §60.103a(h).
- vi. The owner or operator of modified flare that meets all three criteria in paragraphs A. through C. below shall comply with the requirements of Section 5.2.5.i. through v. no later than November 11, 2015. The owner or operator shall comply with the approved alternative monitoring plan or plans pursuant to 40 CFR §60.13(i) until the flare is in compliance with requirements of Section 5.2.5.i. through v.
 - A. The flare was an affected facility subject to subpart J of this part prior to becoming an affected facility under §60.100a.
 - B. The owner or operator had an approved alternative monitoring plan or plans pursuant to §60.13(i) for all fuel gases combusted in the flare.
 - C. The flare did not have in place on or before September 12, 2012 an instrument for continuously monitoring and recording the concentration by volume (dry basis) of H₂S in the fuel gases that is capable of complying with the requirements of paragraphs (a)(2)(i) through (v) of this section.

[45CSR16, 40 CFR §60.107a(a)(2), 45CSR13: Permit R13-2334, 5.2.5.]

5.2.6. In order to determine compliance with the railcar unloading throughput of condition 5.1.10, the permittee shall monitor and record the amount and type of crude oil unloaded from railcars on a monthly basis.
[45CSR13: Permit R13-2334, 5.2.6.]

5.3. Testing Requirements

- 5.3.1. The hydrogen sulfide concentrations of the sour gas stream used to determine daily compliance with Section 5.1.3. shall be determined on days when the fuel gas treatment system is not operating by running 2-hour samples of the hydrogen sulfide content of the water entering and exiting the sour water stripper unit. At least three (3) 2-hour samples shall be taken during each 24-hour period at approximately 8-hour intervals.
[CO-SIP-95-1 - Condition V.9. (SIPed)]
- 5.3.2. The permittee shall conduct an initial performance test of MLDOX to demonstrate compliance with the control efficiency provided in the Emissions Unit Table (minimum of 98%), Section 1.1, and shall establish operating parameters in accordance with the most recent performance test.
[45CSR13: Permit R13-2334, 5.3.1. (00A-04)]
- 5.3.3. The permittee shall meet all applicable performance tests requirements of 40 CFR §60.8 for MLDOX, OXIDIZER, and NH₃OX.
[45CSR16, 40 CFR § 60.8, 45CSR13: R13-2334, 5.3.2]

7.0. Tank Requirements

7.1. Limitations and Standards

7.1.1. Storage tanks are limited to the raw material/ product type and throughput provided in the table below:

Tank ID No.	Raw Material/Product Type and Throughput (gallons per year)
4000, 4001, 4060, 4061, and 4072	crude oil (802,264,890)
4062, 4063	light crude oil w/vapor pressure up to 11.0 psia (306,600,000)
4004, 4005, 4006, 4012, 4013, 4014, 4015, 4016, 4050, 4052, 4053, 4070, and 4071	gasoline or ethanol (318,034,433)
4002, 4003, 4009, 4011, 4054, 4055, 4056, and 4057	heavy products or kerosene (406,459,760)
4007, 4008, 4010, 4017, 4018, 4019, 4020, 4021, 4022, 4023, 4024, 4025, 4026, 4027, 4028, 4029, 4030, 4031, 4032, 4033, 4034, 4035, 4036, 4037, 4038, 4039, 4040, 4041, 4042, 4043, 4044, 4045, 4046, 4047, 4048, 4051, 4103, and 4104	heavy products (550,817,989)
<u>V-4002 and V-4003</u>	<u>Natural Gas Liquids</u>

[45CSR13: Permit R13-2334, 7.1.1.]

7.1.2. Combined emissions from the tanks listed in section 7.1.1 shall not exceed the following:

Pollutant	Emission Rate	
	TPM	TPY
Total VOC	5.79	57.85
Benzene	0.08	0.81
Total HAP	0.65	6.54

[45CSR13: Permit R13-2334, 7.1.2.]

7.1.3. Fixed roof Tanks 4012 and 4013 shall be equipped with internal floating roofs to minimize emissions of VOC's.

[45CSR13: Permit R13-2334, 7.1.3.]

7.1.4. The following requirements apply to **Tanks 4001, 4002, 4003, 4004, 4005, 4006, 4014, 4015, 4016:**

- a. Each and every slotted guidepole that passes through the floating roof shall be equipped with one of the following: a pole float system; an alternate control technology that has an emission factor less than or equal to the emission factor for a pole float system; a pole sleeve system; an internal sleeve emission control system; a solid guidepole system; a flexible enclosure system; or
- b. In the alternative, the Permittee may elect to cover an external floating roof tank with a fixed roof mounted on the tank above the external floating roof, or remove the tank from the service storing liquids subject to NSPS Ka or Kb, modify the permit for that tank, and represent to the West Virginia Division of Air Quality that the tank will not be used to store certain petroleum liquids or volatile organic liquids.
- c. For systems that use a sliding cover, the sliding cover shall be in place over the slotted-guidepole opening in the floating roof at all times, except, when the sliding cover must be removed for access. If the control technology used includes

a guidepole float, the float shall be floating within the guidepole at all times except when it must be removed for access to the stored liquid or when the tank is empty.

- d. The permittee shall visually inspect the deck fitting for the slotted guidepole at least once every ten (10) years and each time the vessel is emptied and degassed. If the slotted guidepole deck fitting or control device has defects, or if a gap that is more than 0.32 centimeters (1/8 inch) exists between any gasket required for control of the slotted guidepole deck fitting and any surface that it is intended to seal, such items shall be repaired before filling or refilling the storage vessel with regulated material.
- e. Tanks taken out of hydrocarbon service, for any reason, do not have to have any controls in place during the time they are taken out of service. Tanks taken out of service must have in place, prior to being put back into service, all controls necessary to remain below the emission limits set forth by the current version of permit R13-2334

[45CSR13: R13-2334, 7.1.4., 7.1.5.]

7.1.5. The following 40 CFR 60 Subpart K requirements apply to **Tanks 4036, 4037, 4038, and 4039:**

The owner or operator of any storage vessel to which 40 CFR Part 60 subpart K applies shall store petroleum liquids as follows: if the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than 78 mm Hg (1.5 psia) but not greater than 570 mm Hg (11.1 psia), the storage vessel shall be equipped with a floating roof, a vapor recovery system, or their equivalents.

[40 CFR § 60.112(a)(1) and 45CSR§16-4.2.1.; 45CSR13: Permit R13-2334, 7.1.6.]

7.1.6. The following 40 CFR 60 Subpart Ka requirements apply to **Tanks 4035, 4040, 4042, 4043, 4044, 4045, 4046:**

The owner or operator of each storage vessel to which 40 CFR Part 60 Subpart Ka applies which contains a petroleum liquid which, as stored, has a true vapor pressure equal to or greater than 10.3 kPa (1.5 psia) but not greater than 76.6 kPa (11.1 psia) shall equip the storage vessel with one of the following:

- (1) An external floating roof, consisting of a pontoon-type or double-deck-type cover that rests on the surface of the liquid contents and is equipped with a closure device between the tank wall and the roof edge. Except as provided in 40 CFR § 60.112a (a)(1)(ii)(D), the closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal and the upper seal is referred to as the secondary seal. The roof is to be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill and when the tank is completely emptied and subsequently refilled. The process of emptying and refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.
 - (i) The primary seal is to be either a metallic shoe seal, a liquid-mounted seal, or a vapor-mounted seal. Each seal is to meet the following requirements:
 - (A) The accumulated area of gaps between the tank wall and the metallic shoe seal or the liquid-mounted seal shall not exceed 212 cm² per meter of tank diameter (10.0 in² per ft of tank diameter) and the width of any portion of any gap shall not exceed 3.81 cm (1½ in).
 - (B) The accumulated area of gaps between the tank wall and the vapor-mounted seal shall not exceed 21.2 cm² per meter of tank diameter (1.0 in² per ft of tank diameter) and the width of any portion of any gap shall not exceed 1.27 cm (½ in).
 - (C) One end of the metallic shoe is to extend into the stored liquid and the other end is to extend a minimum vertical distance of 61 cm (24 in) above the stored liquid surface.
 - (D) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.
 - (ii) The secondary seal is to meet the following requirements:
 - (A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof edge and the tank wall except as provided in 40 CFR § 60.112a (a)(1)(ii)(B).

Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

- iii. The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.
3. A closed vent system and control device meeting the following specifications:
 - i. The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in 40 CFR part 60, subpart VV, § 60.485(b).
 - ii. The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (40 CFR § 60.18) of the General Provisions.
 4. A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) above as provided in 40 CFR § 60.114b.
- b. The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m³ which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following:
 1. A closed vent system and control device as specified in 40 CFR § 60.112b(a)(3).
 2. A system equivalent to that described in paragraph (b)(1) as provided in 40 CFR § 60.114b of this subpart.
- [40 CFR §§ 60.112b(a) and (b), 45CSR§16-4.2.1., 45CSR13: Permit R13-2334, 7.1.7.]**

7.1.8 Tanks V-4002 and V-4003 shall comply with all applicable provisions of 40 CFR 60 Subpart Kb including but not limited to the following:

(a) Alternative means of compliance—(1) Option to comply with part 65. Owners or operators may choose to comply with 40 CFR Part 65, Subpart C, to satisfy the requirements of §§60.112b through 60.117b for storage vessels that are subject to this subpart that meet the specifications in paragraphs (e)(1)(i) and (ii) of this section. When choosing to comply with 40 CFR Part 65, Subpart C, the monitoring requirements of §60.116b(c), (e), (f)(1), and (g) still apply. Other provisions applying to owners or operators who choose to comply with 40 CFR part 65 are provided in 40 CFR 65.1. [40 CFR §60.110b(e), 45CSR§16-4.1., 45CSR13: Permit R13-2334, 7.1.8.]

7.1.9 Tanks V-4002 and V-4003 shall comply with all applicable provisions of 40 CFR 65 Subparts C and G including but not limited to the following:

(a) Storage vessel requirements. The owner or operator expressly referenced to this subpart from Subpart C of this part shall comply with the following requirements, as applicable:

Route to a fuel gas system or process. Owners or operators subject to §65.42(b)(6) who route storage vessel emissions to a fuel gas system or to a process shall meet the requirements in §65.144 and the monitoring, recordkeeping, and reporting requirements referenced therein. No other provisions of this subpart apply to storage vessel emissions being routed to a fuel gas system or to a process.

[40 CFR §65.142(a)(3), 45CSR§16-4.1., 45CSR13: Permit R13-2334, 7.1.9(a)]

(b) Route to process or fuel gas system. Route the emissions to a process or a fuel gas system as specified in §65.142(a)(3). Whenever the owner or operator bypasses the fuel gas system or process, the owner or operator shall comply with the recordkeeping requirement in §65.163(b)(3). Bypassing is permitted if the owner or operator complies with one or more of the following conditions:

(i) The liquid level in the storage vessel is not increased;

(ii) The emissions are routed through a closed vent system to a control device complying with paragraph (b)(4) or (5) of this section; or

(iii) The total aggregate amount of time during which the emissions bypass the fuel gas system or process during the calendar year without being routed to a control device, for all reasons (except startups/shutdowns/malfunctions or product changeovers of flexible operation units and periods when the storage vessel has been emptied and degassed), does not exceed 240 hours.

[40 CFR §65.42(b)(6), 45CSR§16-4.1., 45CSR13: Permit R13-2334, 7.1.9(b)]

(c) Except during periods of startup, shutdown, and malfunction as specified in §65.3(a), the fuel gas system or process shall be operating at all times when regulated material emissions are routed to it.

[40 CFR §65.144(a)(1), 45CSR§16-4.1., 45CSR13: Permit R13-2334, 7.1.9(c)]

7.2. Monitoring Requirements

7.2.1. Compliance with Section 7.1.4. may be determined by visual inspection by the Director or a duly authorized representative of the Director.
[45CSR13: Permit R13-2334, 7.2.1.]

7.2.2. The following 40 CFR 60 Subpart Kb requirements apply to Tanks 4000, 4004, 4005, 4006, 4034, 4047, 4048, 4050, 4051, 4054, 4055, 4056, 4057, 4060, 4061, 4062, 4063, 4070, and 4071. Based on storage of heavy products, Tanks 4034, 4047, 4048, 4051, 4054, 4055, 4056, and 4057 are not subject to either the floating roof requirements or the closed vent system and control requirements of 40 CFR 60 Subpart Kb.

The owner or operator of each storage vessel as specified in 40 CFR § 60.112b(a) shall meet the requirements of paragraph a., b., or c. of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of 40 CFR § 60.112b.

- a. After installing the control equipment required to meet 40 CFR § 60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:
 1. Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.
 2. For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in 40 CFR § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the

- d. The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in 40 CFR § 60.112b (a)(3) or (b)(2) shall meet the requirements as specified in the general control device requirements, 40 CFR § 60.18 (e) and (f).

[40 C.F.R. § 60.113b, 45CSR§16-4 2.1., 45CSR13: Permit R13-2334, 7.2.2.]

7.2.3. The following 40 CFR 60 Subpart Ka requirements apply to **Tanks 4035, 4040, 4042, 4043, 4044, 4045, and 4046**:

- a. Except as provided in 40 CFR §60.8(b) compliance with the standard prescribed in 40 CFR §60.112a shall be determined as follows or in accordance with an equivalent procedure as provided in 40 CFR §60.114a.

1. The owner or operator of each storage vessel to which this subpart applies which has an external floating roof shall meet the following requirements:

- i. Determine the gap areas and maximum gap widths between the primary seal and the tank wall and between the secondary seal and the tank wall according to the following frequency:

- A. For primary seals, gap measurements shall be performed within 60 days of the initial fill with petroleum liquid and at least once every five years thereafter. All primary seal inspections or gap measurements which require the removal or dislodging of the secondary seal shall be accomplished as rapidly as possible and the secondary seal shall be replaced as soon as possible.

- B. For secondary seals, gap measurements shall be performed within 60 days of the initial fill with petroleum liquid and at least once every year thereafter.

- C. If any storage vessel is out of service for a period of one year or more, subsequent refilling with petroleum liquid shall be considered initial fill for the purposes of paragraphs 40 CFR §§ 60.113a(a)(1)(i)(A) and (a)(1)(i)(B).

- D. Keep records of each gap measurement at the plant for a period of at least 2 years following the date of measurement. Each record shall identify the vessel on which the measurement was performed and shall contain the date of the seal gap measurement, the raw data obtained in the measurement process required by 40 CFR §60.113a(a)(1)(ii) and the calculation required by 40 CFR 60.113a(a)(1)(iii).

- E. If either the seal gap calculated in accord with 40 CFR §60.113a (a)(1)(iii) or the measured maximum seal gap exceeds the limitations specified by 40 CFR §60.112a of this subpart, a report shall be furnished to the Administrator within 60 days of the date of measurements. The report shall identify the vessel and list each reason why the vessel did not meet the specifications of 40 CFR §60.112a. The report shall also describe the actions necessary to bring the storage vessel into compliance with the specifications of 40 CFR §60.112a.

- ii. Determine gap widths in the primary and secondary seals individually by the following procedures:

- A. Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.

- B. Measure seal gaps around the entire circumference of the tank in each place where a 1/8" diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the tank wall and measure the circumferential distance of each such location.

- C. The total surface area of each gap described in 40 CFR §60.113a (a)(1)(ii)(B) shall be determined by using probes of various widths to accurately measure the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

- iii. Add the gap surface area of each gap location for the primary seal and the secondary seal individually. Divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the appropriate ratio in the standard in 40 CFR §60.112a(a)(1)(i) and §60.112a(a)(1)(ii).

- iv. Provide the Administrator 30 days prior notice of the gap measurement to afford the Administrator the opportunity to have an observer present.
2. The owner or operator of each storage vessel to which this subpart applies which has a vapor recovery and return or disposal system shall provide the following information to the Administrator on or before the date on which construction of the storage vessel commences:
 - i. Emission data, if available, for a similar vapor recovery and return or disposal system used on the same type of storage vessel, which can be used to determine the efficiency of the system. A complete description of the emission measurement method used must be included.
 - ii. The manufacturer's design specifications and estimated emission reduction capability of the system.
 - iii. The operation and maintenance plan for the system.
 - iv. Any other information which will be useful to the Administrator in evaluating the effectiveness of the system in reducing VOC emissions.

[40 CFR § 60.113a and 45CSR16]

7.2.4. The following 40 CFR 60 Subpart Kb requirements apply to Tanks V-4002 and V-4003:

(c) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.

(1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.

(2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:

(i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference—see §60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).

(ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.

(3) For other liquids, the vapor pressure:

(i) May be obtained from standard reference texts, or

(ii) Determined by ASTM D2879-83, 96, or 97 (incorporated by reference—see §60.17); or

(iii) Measured by an appropriate method approved by the Administrator; or

(iv) Calculated by an appropriate method approved by the Administrator.

[40 CFR § 60.116b(e) and 45CSR16]

7.3. Testing Requirements

7.3.1. None.

7.4. Recordkeeping Requirements

- 7.4.1. To determine compliance with the throughput limits set forth in Section 7.1.1. and the VOC emission limit set forth in Section 7.1.2., the permittee shall keep monthly records of throughput of each raw material/product for each tank. These records shall be kept individually, i.e. per tank. AP-42 emission factors for organic liquid storage tanks (Supp. D, Chapter 7.1), may be used to estimate yearly emissions.

[45CSR13: Permit R13-2334, 7.3.1., 45CSR§30-5.1.C.]

- 7.4.2. To determine compliance with the short-term and annual HAP emission limits set forth in Section 7.1.2., the permittee shall estimate the emissions using a material balances calculation utilizing the vapor weight of HAPs present in petroleum liquids processed and transported at the facility. The following equation shall be used to determine monthly and yearly emissions.

$$\text{HAP Emissions (tpm or tpy)} = [(\text{Individual HAP \%}) \times (\text{Actual VOC emissions, obtained from section 7.4.1. (tpm or tpy)})] / 100$$

Compliance with the yearly limit shall be based on a 12-month rolling total in accordance with Section 2.1.4.

[45CSR13: Permit R13-2334, 7.3.2., 45CSR§30-5.1.c.]

- 7.4.3. The following 40 CFR 60 Subpart K requirements apply to **Tanks 4036, 4037, 4038, and 4039:**

Except as provided in 40 CFR §60.113(d), the owner or operator subject to 40 CFR Part 60 subpart K shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period.

[40 CFR § 60.113(a), 45CSR§16-4.2.1., 45CSR13: Permit R13-2334, 7.3.3.]

- 7.4.4. The following 40 CFR 60 Subpart Ka requirements apply to **Tanks 4035, 4040, 4042, 4043, 4044, 4045, and 4046:**

- a. Except as provided in 40 CFR §§ 60.115a (d), the owner or operator subject to 40 CFR Part 60 Subpart Ka shall maintain a record of the petroleum liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period.
- b. Available data on the typical Reid vapor pressure and the maximum expected storage temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517, unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
- c. The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa (2.0 psia) or whose physical properties preclude determination by the recommended method is to be determined from available data and recorded if the estimated true vapor pressure is greater than 6.9 kPa (1.0 psia).

[40 CFR §§ 60.115a(a) through (c) and 45CSR16]

- 7.4.5. The following 40 CFR 60 Subpart Kb requirements apply to **Tanks 4000, 4004, 4005, 4006, 4034, 4047, 4048, 4050, 4051, 4054, 4055, 4056, 4057, 4060, 4061, 4062, 4063, 4070, and 4071. Based on storage of heavy products, Tanks 4034, 4047, 4048, 4051, 4054, 4055, 4056, and 4057 are not subject to either the floating roof requirements or the closed vent system and control requirements of 40 CFR 60 Subpart Kb.**

The owner or operator of each storage vessel as specified in 40 CFR § 60.112b (a) shall keep records and furnish reports as required by 40 CFR § 60.115b (a), (b), or (c) depending upon the control equipment installed to meet the requirements of 40 CFR § 60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by 40 CFR § 60.115b (c) (1), for at least 2 years. The record required by 40 CFR § 60.115b (c)(1) will be kept for the life of the control equipment.

- a. After installing control equipment in accordance with 40 CFR § 60.112b (a) (1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.
 1. Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of 40 CFR § 60.112b (a)(1) and 40 CFR § 60.113b (a)(1). This report shall be an attachment to the notification required by 40 CFR § 60.7 (a)(3).

2. Records shall be kept of all periods of operation during which the flare pilot flame is absent.
3. Semiannual reports of all periods recorded under 40 CFR § 60.115b (d)(2) in which the pilot flame was absent shall be furnished to the Administrator.

[40 CFR § 60.115b, 45CSR§16-4 2.1.; 45CSR13: Permit R13-2334, 7.3.4.]

- 7.4.6. The following 40 CFR 60 Subpart Kb requirements apply to **Tanks 4000, 4004, 4005, 4006, 4034, 4047, 4048, 4050, 4051, 4054, 4055, 4056, 4057, 4060, 4061, 4062, 4063, 4070, and 4071:**
- a. The owner or operator shall keep copies of all records required by 40 CFR Part 60 Subpart Kb, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.
 - b. The owner or operator of each storage vessel as specified in 40 CFR § 60.110b (a) shall keep readily accessible records showing the dimension and an analysis showing the capacity of the storage vessel.
 - c. Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.
 - d. Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m³ storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m³ but less than 151 m³ storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor pressure values for each volume range.
 - e. Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.
 1. For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.
 2. For crude oil or refined petroleum products the vapor pressure may be obtained by the following:
 - i. Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendar-month average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference -- see § 60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
 - ii. The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.
 - f. The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.
 1. Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of this section.
 2. For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in 40 CFR §60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:

- i. ASTM D2879-83, 96, or 97 (incorporated by reference -- see 40 CFR § 60.17); or
 - ii. ASTM D323-82 or 94 (incorporated by reference -- see 40 CFR § 60.17); or
 - iii. As measured by an appropriate method as approved by the Administrator.
- g. The owner or operator of each vessel equipped with a closed vent system and control device meeting the specification of 40 CFR § 60.112b or with emissions reductions equipment as specified in 40 CFR § 65.42(b)(4), (b)(5), (b)(6), or (c) is exempt from the requirements of paragraphs (c) and (d) of this section.
[40 CFR § 60.116b, 45CSR§16-4.2.1., 45CSR13: Permit R13-2334, 7.3.5.]

7.4.7. Tanks V-4002 and V-4003 shall comply with all applicable provisions of 40 CFR 65 Subparts C and G including but not limited to the following:

(a) Bypass records for storage vessel emissions routed to a process or fuel gas system. An owner or operator who uses the bypass provisions of §65.144(a)(2) shall keep in a readily accessible location the following records:

- (i) The reason it was necessary to bypass the process equipment or fuel gas system;**
- (ii) The duration of the period when the process equipment or fuel gas system was bypassed;**

**(iii) Documentation or certification of compliance with the applicable provisions of §65.42(b)(6).
[40 CFR §65.163(b)(3), 45CSR§16-4.1., 45CSR13: Permit R13-2334, 7.3.6(a)]**

**(b) Vessel dimensions and capacity. Each owner or operator of a storage vessel subject to this subpart shall keep readily accessible records showing the dimensions of the storage vessel and an analysis of the capacity of the storage vessel.
[40 CFR §65.47(b), 45CSR§16-4.1., 45CSR13: Permit R13-2334, 7.3.6(b)]**

**(c) Regulated source and control equipment startup, shutdown and malfunction records. (1) Records of the occurrence and duration of each startup, shutdown, and malfunction of process equipment or of air pollution control equipment used to comply with this part during which excess emissions (as defined in §65.3(a)(4)) occur.
[40 CFR §65.163(c), 45CSR§16-4.1., 45CSR13: Permit R13-2334, 7.3.6(c)]**

7.4.8. Tanks V-4002 and V-4003 shall comply with all applicable provisions of 40 CFR 60 Subpart A including but not limited to the following:

(a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows:

- (1) A notification of the date construction (or reconstruction as defined under 40 CFR §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.**

[40 CFR §60.7(a)(1), 45CSR§16-4.1]

7.5. Reporting Requirements

- 7.5.1. None.

7.6. Compliance Plan

- 7.6.1. None.

11.0. Firewater Pump Engines Requirements [FWPUMP1 and FWPUMP2]

11.1. Limitations and Standards

11.1.1. What emission limitations, operating limitations, and other requirements must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d of 40 CFR 63 subpart ZZZZ that apply to you.

You must meet the following requirements, except during periods of startup. During periods of startup you must comply with Condition 11.2.1.be.

- a. Change oil and filter every 500 hours of operation or annually, whichever comes first; (Sources have the option to utilize an oil analysis program as described in Condition 11.2.1.cd. in order to extend the specified oil change requirement.)
- b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
- c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Note: ~~If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.~~

~~[45CSR34, 40 CFR §63.6603(a) and Table 2d(14) and footnote 2 to Table 2d; 45CSR13: Permit R13-2334, 11.1.2]~~

11.1.2. What are my general requirements for complying with this subpart?

- a. You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.
- b. At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[45CSR34, 40 CFR §63.6605]

11.1.3. Firepump engines FWPUMP1 and FWPUMP2 shall not operate more than 500 hours each per year. Compliance with this limit shall be based on a rolling 12 month total.
[45CSR34, 45CSR13: Permit R13-2334, 11.1.1.]

11.2. Monitoring Requirements

11.2.1. What are my monitoring, installation, collection, operation, and maintenance requirements?

- a. If you own or operate an existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP emergency or black start stationary RICE located at an area source of HAP emissions, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. **[45CSR13: Permit R13-2334, 11.1.4.]**
- ~~b. If you own or operate an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.~~
- ~~b.e.~~ If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2d to 40 CFR subpart ZZZZ apply.
- ~~c.d.~~ If you own or operate a stationary CI engine that is subject to the work, operation or management practices in Condition 11.1.1., you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement. The oil analysis must be performed at the same frequency specified for changing the oil in Condition 11.1.1. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[45CSR34, 40 CFR §§63.6625(e)(4), (f); (h), and (i)]

11.2.2. How do I demonstrate continuous compliance with the emission limitations, operating limitations, and other requirements?

- a. You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements in 40 CFR 63 subpart ZZZZ, Table 2d that apply to you according to methods specified in 40 CFR 63 subpart ZZZZ, Table 6 (same as Condition 11.2.1.a.)
- b. You must report each instance in which you did not meet each emission limitation or operating limitation in 40 CFR 63 part ZZZZ, Table 2d that apply to you. These instances are deviations from the emission and operating limitations in this subpart.
- ~~c. If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs 1. through 3. of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, 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 paragraphs 1. through 3. of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs 1. through 3. of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.~~
 - ~~1. There is no time limit on the use of emergency stationary RICE in emergency situations.~~
 - ~~2. You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs 2.i. through iii. of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency~~

situations as allowed by paragraph 3. of this section counts as part of the 100 hours per calendar year allowed by this paragraph 2.

i. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

ii. Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

iii. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

3. Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph 2. of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[45CSR34, 40 CFR §§ 63.6640(a), (b), ~~(f)(1), (2), and (4)~~, and Table 6(9)]

11.2.3 For the purposes of determining compliance with 11.1.3., the permittee shall monitor and record the number of hours per month that fire water pump engines FWPUMP1 and FWPUMP2 operate. [45CSR13: Permit R13-2334, 11.2.1.]

11.3. Testing Requirements

11.3.1. None.

11.4. Recordkeeping Requirements

11.4.1. What records must I keep?

- a. If you must comply with the emission and operating limitations, you must keep the records described in paragraphs a. 1. through a.4., and b.1. ~~and b.2., and c.~~ below.
1. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).
 2. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
 3. Records of all required maintenance performed on the air pollution control and monitoring equipment.
 4. Records of actions taken during periods of malfunction to minimize emissions in accordance with Condition 11.1.2.b., including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

b. You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE: **[45CSR13: Permit R13-2334, 11.2.2.]**

~~1. An existing stationary emergency RICE.~~

~~1.2. An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.~~

~~c. If you own or operate an existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in 40 CFR §63.6640(f)(2)(ii) or (iii) or 40 CFR §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.~~

~~**[45CSR34, 40 CFR §§ 63.6655(a), (e)(3), and (f)(2)]**~~

11.4.2. **In what form and how long must I keep my records?** Your records must be in a form suitable and readily available for expeditious review according to 40 CFR §63.10(b)(1). As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

[45CSR34, 40 CFR §§ 63.6660]

11.5. Reporting Requirements

11.5.1. None.

11.6. Compliance Plan

11.6.1. None.