AUGUST 2014

ERGON – WEST VIRGINIA, INC.

TITLE V RENEWAL APPLICATION

Ergon-West Virginia, Inc.

Project Number 098-057

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1.0 EXECUTIVE SUMMARY

1.0 EXECUTIVE SUMMARY

Ergon – West Virginia, Inc. (EWVI) owns and operates a petroleum refinery in Newell, West Virginia. The refinery is currently operating under West Virginia Department of Environmental Protection (WV DEP) Regulation 13 Permit No. R13-2334V and Title V Permit No. R30-02900008-2004. The Regulation 13 Permit has undergone several revisions and therefore any references to R13-2334 in this renewal application are referring to version R13-2334V, issued January 10, 2014. The refinery processes crude oil and produces several petroleum products such as diesel, gasoline, kerosene, and crude oils. The Title V Permit expires on February 17, 2015. A permit renewal application for the Title V Permit is due August 17, 2014. This report contains the permit renewal application in accordance with WV DEP rules and regulations.

As a part of this renewal application, EWVI is requesting the following changes be made to the existing Title V permit:

1) EWVI has increased the capacity of the CDU. It can now process 803,000 barrels per month.
2) Heater H-101 and H-102 have been upgraded to H-101R and H-102R, respectively. H-101R has a design capacity of 54.5 MMBtu/hr, and H-102R has a design capacity of 29.4 MMBtu/hr.
3) EWVI has installed a Unifiner Charge Heater (H-501R) as an upgrade to H-501. H-501R will have its own individual stack and has a design capacity of 11.5 MMBtu/hr. This removes H-501 from the H-500S heater series. The de-rated total capacity of H-500S is now 59.6 MMBtu/hr.
4) EWVI has increased the loading capacity of the truck rack. EPN TLOAD can now load up to a combined 397.8 MMgal/yr of the products loaded onto trucks at the refinery. This also modified the associated control device (OXIDIZER). OXIDIZER now has the potential to combust 17,346 MMBtu/yr with a minimum efficiency of 98.7%.
5) EWVI has also increased the loading capacity of the barge loading operation. EPN MLD can now load up to a combined 460.7 MMgal/yr of the products loaded onto barges at the refinery. EWVI has installed a thermal oxidizer for the control of the barge loading vapors from MLD. This thermal oxidizer, designated MLDOX, has a capacity to combust 14,225 MMBtu/yr with a minimum efficiency of 98%.
6) EWVI has increased the throughput of tanks TK-4000, TK-4001, TK-4004, TK-4014, TK-4015, TK-4050, TK-4060, TK-4061, and TK-4062. The regulations associated with these tanks have been updated accordingly.
7) EWVI has installed a 5,040,000 gallon internal floating roof tank (TK-4063). It will contain light crude oil with a TVP less than or equal to 11.0 psia.
8) EWVI has installed a 40,000 gallon fixed roof tank (TK-4066). It will contain biodiesel.
9) EWVI has also installed two (2) processing units. A naphtha splitter and an ISOM unit. The naphtha splitter is a distillation column that is used to separate naphtha. The ISOM unit will reduce the benzene concentration in the motor gasoline. Only fugitive emissions are associated with both of these units.
10) EWVI will be installing an Ammonia Destruction Unit (ADU), which includes two (2) small columns, seven (7) pumps, one (1) thermal oxidizer, one (1) air cooler, and one (1) electric heater. Only fugitive emissions are associated with this ADU.

This document contains the Application for Permit and all the supporting documentation requested by the application in accordance with WV DEP regulations. This includes the following attachments:

ATTACHMENT A	PLOT PLAN
ATTACHMENT B	AREA MAP
ATTACHMENT C	PROCESS FLOW DIAGRAM
ATTACHMENT D	EMISSION UNITS TABLE
ATTACHMENT E	EMISSION UNIT FORMS
ATTACHMENT F	SCHEDULE OF COMPLIANCE
ATTACHMENT G	AIR POLLUTION CONTROL DEVICE FORMS
ATTACHMENT H	CAM PLAN FORMS

2.0 TANK GROUPING INFORMATION

2.0 TANK GROUPING INFORMATION

The tanks at EWVI are grouped for permitting purposes based on the type of material stored in the tank. These groupings are used for both throughput and emission limitations. Table 2-1 shows the current throughput and emission limitations for the various groups of tanks.

Table 2-1. Tank Limitations

Tanks	Throughput	VOC Emissions		Benzene Emissions		Total HAP Emissions	
	gal/yr	tpm	tpy	tpm	tpy	tpm	tpy
Crude Oil: 4000, 4001, 4060, and 4061	705,180,000	5.35	53.52	0.08	0.81	0.65	6.53
Light Crude Oil with a Vapor Pressure up to 11.0 psia: 4062, 4063	306,600,000						
Gasoline or Ethanol: 4004, 4005, 4006, 4012, 4013, 4014, 4015, 4016, 4050, 4052, 4053	282,320,300						
Heavy Products or Kerosene: 4002, 4003, 4009, 4011, 4054, 4055, 4056, 4057	406,459,760						
Heavy Products: 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, 4104	550,817,989						

As a part of the historical permitting efforts, EWVI has requested the above groupings that have been approved by WV DEP. EWVI is requesting that the above groupings be retained in the renewed Title V Permit. As a result, individual emission rates for each tank are not listed in the respective emission unit forms in Attachment E.

3.0 TITLE V PERMIT APPLICATION – GENERAL FORMS

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

1. **Name of Applicant (As registered with the WV Secretary of State's Office):** Ergon – West Virginia, Inc.	**2. Facility Name or Location:** Newell, Hancock County, West Virginia
3. DAQ Plant ID No.: 0 2 9 — 0 0 0 0 8	**4. Federal Employer ID No. (FEIN):** 7 2 1 3 7 5 1 1 4

5. **Permit Application Type:**

☐ Initial Permit — When did operations commence? 04/1972

☒ Permit Renewal — What is the expiration date of the existing permit? 02/17/2015

☐ Update to Initial/Renewal Permit Application

6. Type of Business Entity:

☒ Corporation ☐ Governmental Agency ☐ LLC
☐ Partnership ☐ Limited Partnership

7. Is the Applicant the:

☐ Owner ☐ Operator ☒ Both

If the Applicant is not both the owner and operator, please provide the name and address of the other party.

_____

_____

_____

8. Number of onsite employees:

185

9. Governmental Code:

☒ Privately owned and operated; 0
☐ Federally owned and operated; 1
☐ State government owned and operated; 2
☐ County government owned and operated; 3
☐ Municipality government owned and operated; 4
☐ District government owned and operated; 5

10. Business Confidentiality Claims

Does this application include confidential information (per 45CSR31)? ☐ Yes ☒ No

If yes, identify each segment of information on each page that is submitted as confidential, and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's *"PRECAUTIONARY NOTICE-CLAIMS OF CONFIDENTIALITY"* guidance.

11. Mailing Address		
Street or P.O. Box: P.O. Box 356		
City: Newell	**State:** WV	**Zip: 26050**
Telephone Number: (304) 387-4343	**Fax Number:** (304) 387-7006	

12. Facility Location		
Street: 9995 Ohio River Blvd.	**City:** Newell	**County:** Hancock
UTM Easting: 531.25 km	**UTM Northing:** 4,495.35 km	**Zone:** ☒ 17 or ☐ 18
Directions: Two miles South of Newell, WV on State Route 2.		
Portable Source? ☐ Yes ☒ No		
Is facility located within a nonattainment area? ☒ Yes ☐ No		**If yes, for what air pollutants?** Total Suspended Particulate (TSP) $PM_{2.5}$
Is facility located within 50 miles of another state? ☒ Yes ☐ No		**If yes, name the affected state(s).** Ohio Pennsylvania
Is facility located within 100 km of a Class I Area[1]? ☐ Yes ☒ No **If no, do emissions impact a Class I Area[1]?** ☐ Yes ☒ No		**If yes, name the area(s).**

[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: Paul W. Young, Jr.		**Title:** Vice President of Regulatory Affairs
Street or P.O. Box: 2829 Lakeland Dr., Mirror Lake Plaza Bldg. B		
City: Jackson	**State:** MS	**Zip: 39232**
Telephone Number: (601) 933-3000	**Fax Number:** (601) 933-3369	
E-mail address: paul.young@ergon.com		
Environmental Contact: Jake Neihaus		**Title:** Senior Environmental Scientist
Street or P.O. Box: 2829 Lakeland Dr., Mirror Lake Plaza Bldg. B		
City: Jackson	**State:** MS	**Zip: 39232**
Telephone Number: (601) 933-3123	**Fax Number:** (601) 933-3369	
E-mail address: jake.neihaus@ergon.com		
Application Preparer: Jake Neihaus		**Title:** Senior Environmental Scientist
Company: Ergon, Inc.		
Street or P.O. Box: 2829 Lakeland Dr., Mirror Lake Plaza Bldg. B		
City: Jackson	**State:** MS	**Zip: 39232**
Telephone Number: (601) 933-3123	**Fax Number:** (601) 933-3369	
E-mail address: jake.neihaus@ergon.com		

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
Petroleum Refining	Straight Gasoline, Ultra Low Sulfur Diesel, Kerosene, Lube Oil, No. 6 Fuel Oil, Light Crude Oil w/ a TVP $\leq$ 11.0 psia	324110	2911

Provide a general description of operations.

Ergon – West Virginia, Inc. (EWVI) owns and operates a petroleum refinery in Newell, West Virginia. The refinery is currently operating West Virginia Department of Environmental Protection (WV DEP) Regulation 13 Permit No. R13-2334V and Title V Permit No. R30-02900008-2014. The refinery processes crude oil (RVP 5.0) and Light Crude Oil (TVP $\leq$ 11.0) and produces several petroleum products such as diesel, gasoline, and lube oils.

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.	
☐ SIP	☐ FIP
☒ Minor source NSR (45CSR13)	☐ PSD (45CSR14)
☒ NESHAP (45CSR34)	☐ Nonattainment NSR (45CSR19)
☒ Section 111 NSPS	☒ Section 112(d) MACT standards
☐ Section 112(g) Case-by-case MACT	☒ 112(r) RMP
☐ Section 112(i) Early reduction of HAP	☐ Consumer/commercial prod. reqts., section 183(e)
☐ Section 129 Standards/Reqts.	☐ Stratospheric ozone (Title VI)
☐ Tank vessel reqt., section 183(f)	☐ Emissions cap 45CSR§30-2.6.1
☐ NAAQS, increments or visibility (temp. sources)	☒ 45CSR27 State enforceable only rule
☒ 45CSR4 State enforceable only rule	☐ Acid Rain (Title IV, 45CSR33)
☐ Emissions Trading and Banking (45CSR28)	☐ **C**ompliance **A**ssurance **M**onitoring (40CFR64)
☐ CAIR NO_x Annual Trading Program (45CSR39)	☐ CAIR NO_x Ozone Season Trading Program (45CSR40)
☐ CAIR SO_2 Trading Program (45CSR41)	

19. Non Applicability Determinations

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.

40 CFR 60, Subpart D – The boilers do not have rated capacities greater than 250 MMBtu/hr.

40 CFR 60, Subpart Da – The boilers are not in electric utility service and do not have capacities greater then 250 MMBtu/hr.

40 CFR 60, Subpart Db – There are no steam generating units that commenced construction, modification, or reconstruction after June, 19, 1984 with a rated capacity of greater than 100 MMBtu/hr.

40 CFR 60, Subpart Ka – Tanks 4044, 4045, and 4046 have capacities greater than 40,000 gallons and were constructed within the applicability dates. However, 40 CFR 60.112a(a) exempts these vessels due to the fact that they contain a petroleum liquid which, as stored, has a true vapor pressure (TVP) less than 10.3 kPa (1.5 psia).

40 CFR 61, Subpart V – Due to the fact that the Newell Refinery is not subject to an additional subpart in Part 61, Subpart V does not apply.

40 CFR 63, Subpart H – Due to the fact that the refinery is not subject to an additional subpart of 40 CFR 63, Subpart H is not applicable.

40 CFR 63, Subpart Y – The facility has existing marine loading operations that began before the final rule was issued in September 1995. Therefore, to be subject to Subpart Y, the hazardous air pollutant (HAP) emissions from the marine tank vessel loading operations must exceed 10 or 25 tons. Marine tank vessel loading operations do not exceed these thersholds.

40 CFR 63, Subpart OO – Subpart OO would only apply to the Newell Refinery if it were referenced in another Subpart to which it was subject. Subpart OO is not referenced in any Subpart to which the refinery is subject and therefore it does not apply.

☒ 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.

40 CFR 63, Subpart PP – Subpart PP would only apply to the Newell Refinery if it were referenced in another Subpart to which it was subject. Subpart PP is not referenced in any Subpart to which the refinery is subject and therefore it does not apply.

40 CFR 63, Subpart QQ – Subpart QQ would only apply to the Newell Refinery if it were referenced in another Subpart to which it was subject. Subpart QQ is not referenced in any Subpart to which the refinery is subject and therefore it does not apply.

40 CFR 63, Subpart RR – Subpart RR would only apply to the Newell Refinery if it were referenced in another Subpart to which it was subject. Subpart RR is not referenced in any Subpart to which the refinery is subject and therefore it does not apply.

40 CFR 63, Subpart VV – Subpart VV would only apply to the Newell Refinery if it were referenced in another Subpart to which it was subject. Subpart VV is not referenced in any Subpart to which the refinery is subject and therefore it does not apply.

40 CFR 63, Subpart UUU – The Newell Refinery does not have Catalytic Cracking Units, Catalytic Reforming Units, or Sulfur Recovery Units.

40 CFR 63, Subpart EEEE – EWVI is not subject to this subpart because the refinery is already a HAP major source that is subject to the Refinery NESHAP (40 CFR 63, Subpart CC).

☒ 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 <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*).

Open burning – 45 CSR 6-3.1
Open burning exemptions – 45 CSR 6-3.2
Asbestos – 40 CFR 61
Odor – 45 CSR 4-3.1
Permanent shutdown – 45 CSR 13-10.5
Standby plan for reducing emissions - 45 CSR 11-5.2
Emission inventory – W. Va. Code 22-5-4(a)(14)
Ozone-depleting substances – 40 CFR 82, Subpart F
Risk Management Plan – 40 CFR 68
Sulfur Dioxide – CO-SIP-95-1 – Condition IV.1.(SIPed)
Sulfur Dioxide – CO-SIP-95-1 – Condition IV.2.(SIPed)
Hydrogen Sulfide and Sulfur Dioxide – CO-SIP-95-1 – Condition IV.9.(SIPed)
HAPs Emission Standards – 45 CSR 13
Performance Standards for New Stationary Sources - 45 CSR 13
Standards of Performance for Petroleum Refineries - 45 CSR 13
HAPs Emission Standards for Source Categories - 45 CSR 13
Startup, shutdown, and malfunction plan – 40 CFR 63.6(e)(3) and 45 CSR 34-2.1
Petroleum Refineries MACT – 40 CFR 63. 640(h) and 45 CSR 34-2.1
Petroleum Refineries MACT – 40 CFR 63. 642(g) and 45 CSR 34-2.1
Petroleum Refineries MACT – 40 CFR 63. 642(i) and 45 CSR 34-2.1
Petroleum Refineries MACT – 40 CFR 63. 642(k) and 45 CSR 34-2.1
Petroleum Refineries MACT – 40 CFR 63. 642(l) and 45 CSR 34-2.1
Petroleum Refineries MACT – 40 CFR 63. 642(m) and 45 CSR 34-2.1
Consent Decree Civil No. 3: 03CV114010S
Industrial Boilers MACT – 45 CSR 34, 45 CSR 30-12.1,12.3, and 12.4
Site Remediation MACT – 40 CFR 63, Subpart GGGGG, 40 CFR 63.7950(b), and 45 CSR 34-2.1
Maintenance of Air Pollution Control Equipment – 45 CSR 13-5.11
Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries – 40 CFR 60, Subpart GGG

☒ 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.)

Monitoring Requirements:

Not Applicable

Testing Requirements:

Stack testing – WV Code 22-5-4(a)(15) and 45 CSR 13

Performance test notification – 40 CFR 63.642(d)(2) and (3), and 45 CSR 34-2.1

Recordkeeping Requirements:

Monitoring Information – 45 CSR 30.5.1.c.2.A

Retention of Records – 45 CSR 30-5.1.c.2.B

Odors – 45 CSR 30-5.1.c

Petroleum Refineries MACT – 40 CFR 63.10(b)(2) and 45 CSR 34-2.1

Record of Maintenance of Air Pollution Control Equipment – 45 CSR 13

Reporting Requirements:

Responsible Official – 45 CSR 30-4.4 and 5.1.c.3.E

Confidential Business Information – 45 CSR 30-5.1.c.3.E

Submissions

Certified Emissions Statement – 45 CSR 30-8

Compliance Certification – 45 CSR 30-5.3.e

Semi-annual monitoring reports – 45 CSR 30-5.1.c.3.A

Emergencies

Deviations – 45 CSR 30-5.1.c.3.B,C and D

New applicable requirements – 45 CSR 30-4.3.h.1.B

Notification of Compliance Status Report – 40 CFR 63.654(f) and 45 CSR 34-2.1

Periodic Reports – 40 CFR 63.654(g) and 45 CSR 34-2.1

Performance Test Results – 40 CFR 63.654(g)(7) and 45 CSR 34-2.1

MACT Reporting – 40 CFR 63.654(h)(1) and 45 CSR 34-2.1

Parametric Monitoring – 40 CFR 63.654(h)(4) and 45 CSR 34-2.1

Alternative Monitoring and Recordkeeping – 40 CFR 63.654(h)(5) and 45 CSR 34-2.1

Reporting Performance Evaluation Results - 40 CFR 63.8(f)(5)(i) and 45 CSR 34-2.1

Request to Use Alternative Monitoring Procedure - 40 CFR 63.8(f)(4) and 45 CSR 34-2.1

Use of an Alternative Nonopacity Emission Standard – 40 CFR 63.6(g) and 45 CSR 34-2.1

Request to Waive a Performance Test - 40 CFR 63.7(h)(3)(i) and (iii) and 45 CSR 34-2.1

Determinations - 40 CFR 63.654(h)(6) and 45 CSR 34-2.1

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.

☐ 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.)

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

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

21. Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit *(if any)*
R13-2334V	01/10/2014	
R30-02900008-2010	05/27/2014	
Consent Decree Civil No. 3: 03CV114010S	08/28/2003	
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22. Inactive Permits/Obsolete Permit Conditions		
Permit Number	Date of Issuance	Permit Condition Number
N/A		
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Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	239.12
Nitrogen Oxides (NO_X)	204.50
Lead (Pb)	
Particulate Matter ($PM_{2.5}$)[1]	23.92
Particulate Matter (PM_{10})[1]	23.92
Total Particulate Matter (TSP)	23.92
Sulfur Dioxide (SO_2)	74.50
Volatile Organic Compounds (VOC)	170.67
Hazardous Air Pollutants[2]	Potential Emissions
Benzene	1.76
Hexane	3.916
Ethylbenzene	1.06
Xylene	4.27
Toluene	4.16
Regulated Pollutants other than Criteria and HAP	Potential Emissions
Greenhouse Gases (GHGs)	Potential Emissions
Carbon Dioxide (CO_2)	4,867
Nitrous Oxide (N_2O) (as CO_2e)	7.73
Methane (CH_4) (as CO_2e)	2.33
Hydrofluorocarbons (HFCs)	
Perfluorocarbons (PFCs)	
Sulfur hexafluoride (SF_6)	
CO_2 equivalent (CO_2e)	4,878

[1]*$PM_{2.5}$ and PM_{10} are components of TSP.*
[2]*For 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)		
☒	1.	Air compressors and pneumatically operated equipment, including hand tools.
☒	2.	Air contaminant detectors or recorders, combustion controllers or shutoffs.
☒	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.
☒	4.	Bathroom/toilet vent emissions.
☒	5.	Batteries and battery charging stations, except at battery manufacturing plants.
☒	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.
☐	7.	Blacksmith forges.
☒	8.	Boiler water treatment operations, not including cooling towers.
☒	9.	Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
☐	10.	CO_2 lasers, used only on metals and other materials which do not emit HAP in the process.
☒	11.	Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
☒	12.	Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
☒	13.	Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
☒	14.	Demineralized water tanks and demineralizer vents.
☐	15.	Drop hammers or hydraulic presses for forging or metalworking.
☐	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.
☐	17.	Emergency (backup) electrical generators at residential locations.
☐	18.	Emergency road flares.
☒	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: Sandblasting – 1 lb/hr and 672 lb/yr

24. Insignificant Activities (Check all that apply)		
☐	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. 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: _____ _____ _____ _____ _____
☐	21.	Environmental chambers not using hazardous air pollutant (HAP) gases.
☐	22.	Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
☐	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.
☒	24.	Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
☒	25.	Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
☒	26.	Fire suppression systems.
☒	27.	Firefighting equipment and the equipment used to train firefighters.
☐	28.	Flares used solely to indicate danger to the public.
☒	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.
☒	30.	Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
☒	31.	Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
☐	32.	Humidity chambers.
☒	33.	Hydraulic and hydrostatic testing equipment.
☒	34.	Indoor or outdoor kerosene heaters.
☒	35.	Internal combustion engines used for landscaping purposes.
☐	36.	Laser trimmers using dust collection to prevent fugitive emissions.
☐	37.	Laundry activities, except for dry-cleaning and steam boilers.
☒	38.	Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
☒	39.	Oxygen scavenging (de-aeration) of water.
☐	40.	Ozone generators.
☒	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

24. Insignificant Activities (Check all that apply)		
		owners/operators must still get a permit if otherwise requested.)
☒	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.
☒	43.	Process water filtration systems and demineralizers.
☒	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.
☒	45.	Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
☒	46.	Routing calibration and maintenance of laboratory equipment or other analytical instruments.
☐	47.	Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
☐	48.	Shock chambers.
☐	49.	Solar simulators.
☒	50.	Space heaters operating by direct heat transfer.
☒	51.	Steam cleaning operations.
☒	52.	Steam leaks.
☐	53.	Steam sterilizers.
☒	54.	Steam vents and safety relief valves.
☐	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.
☒	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.
☒	57.	Such other sources or activities as the Director may determine.
☒	58.	Tobacco smoking rooms and areas.
☒	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**.
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**.
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**.

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. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

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: Paul W. Young, Jr.	Title: Vice President of Regulatory Affairs

Responsible official's signature:

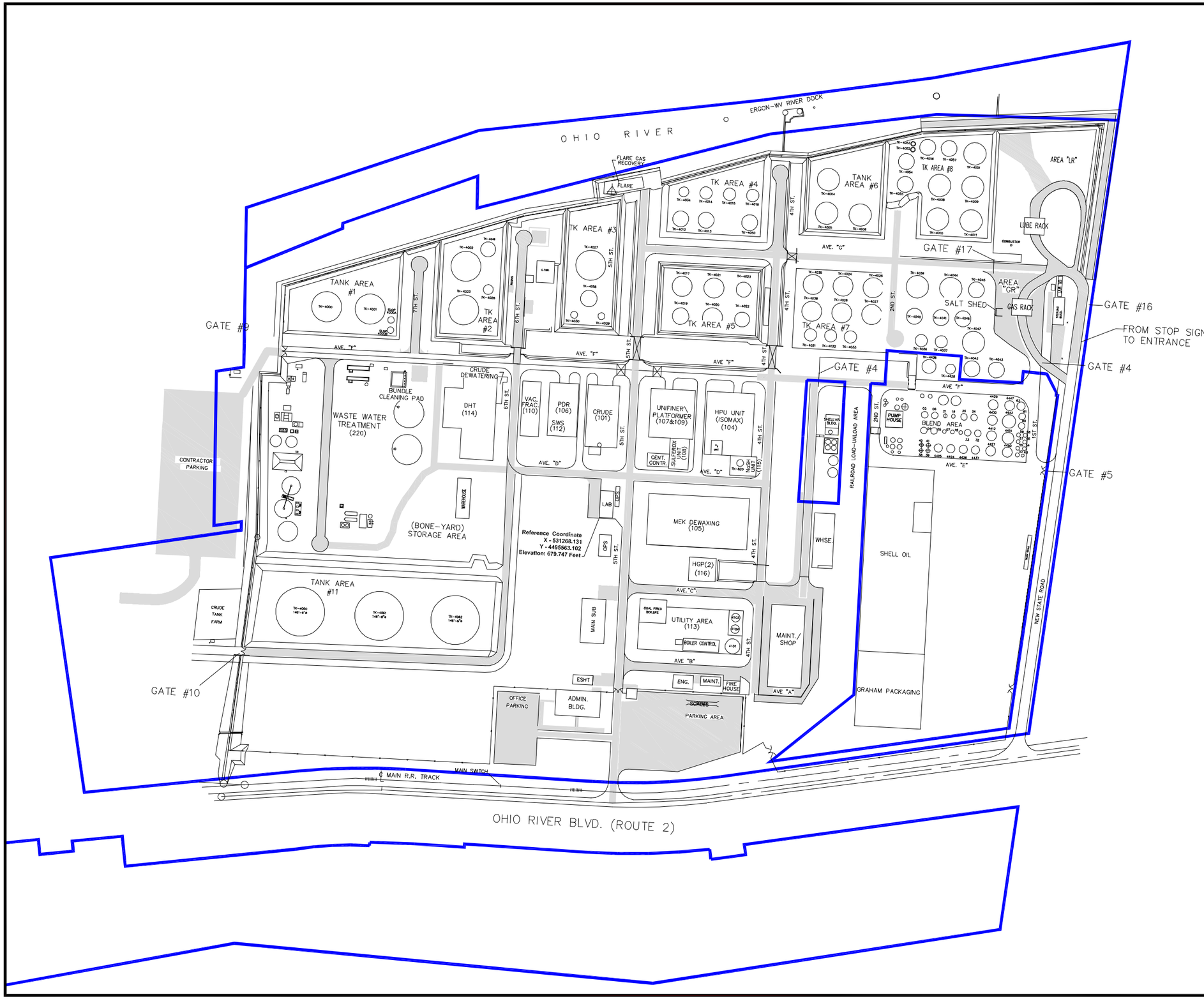
Signature: Paul W Young Jr. (Must be signed and dated in blue ink) Signature Date: 08/12/2014

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

☒	ATTACHMENT A: Area Map
☒	ATTACHMENT B: Plot Plan(s)
☒	ATTACHMENT C: Process Flow Diagram(s)
☒	ATTACHMENT D: Equipment Table
☒	ATTACHMENT E: Emission Unit Form(s)
☒	ATTACHMENT F: Schedule of Compliance Form(s)
☒	ATTACHMENT G: Air Pollution Control Device Form(s)
☒	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/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

ATTACHMENT A – PLOT PLAN



Legend

Property Line

Reference

Base map provided by client, titled: snow removal plan, drawing no: L-1000A01-152, dated: 11/12/01.

400 0 400

Scale: 1" = 400'

Plot Plan

Title V Renewal Application
Newell, Hancock County, West Virginia

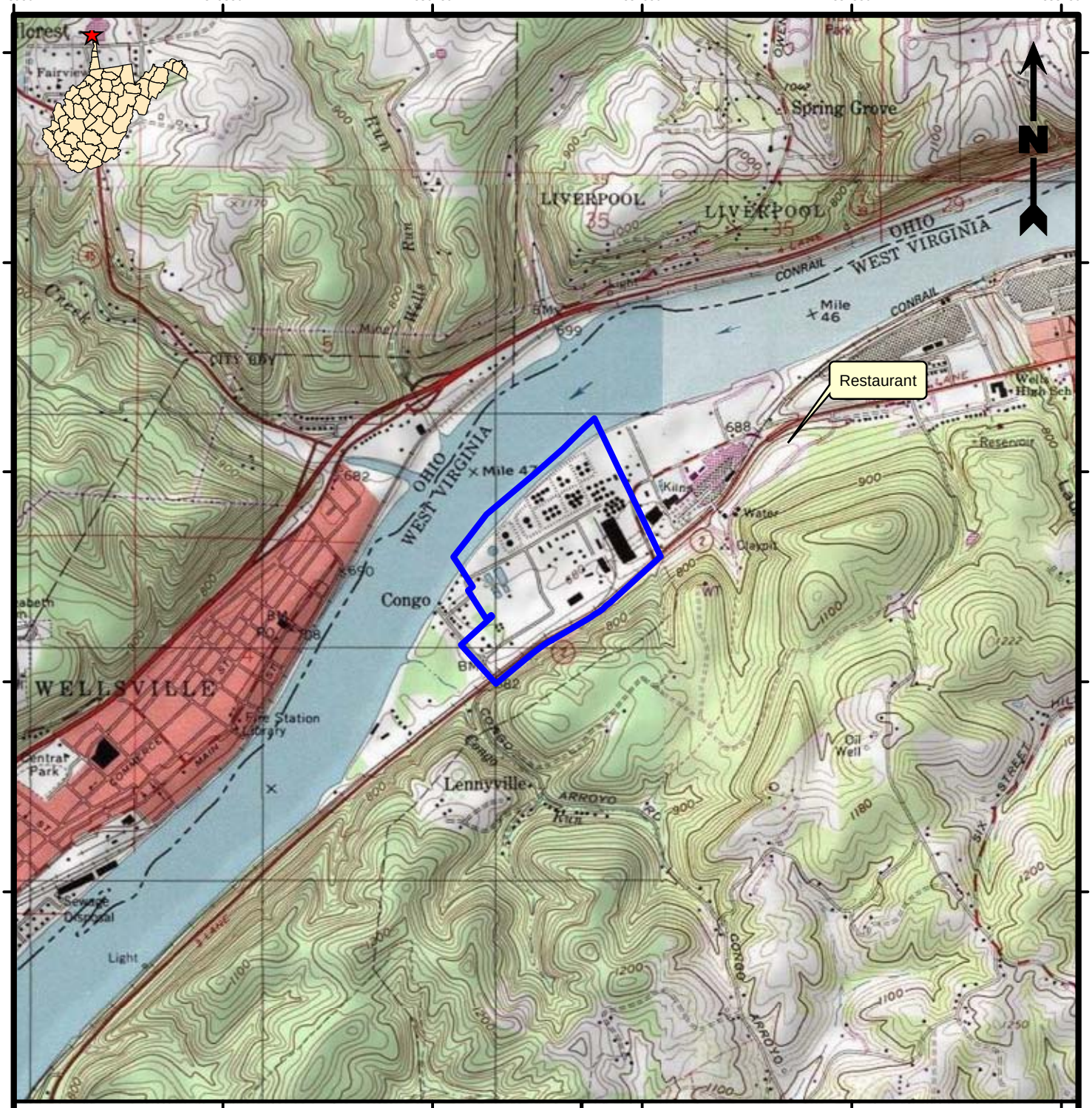
Ergon-West Virginia, Inc
Newell Refinery

PROVIDENCE

Drawn By	LMM	07/16/14
Checked By	LMH	07/16/14
Approved By	JDA	07/16/14
Project Number 098-057		A
Drawing Number 098-057-B002		Attachment

Providence Engineering and Environmental Group LLC

ATTACHMENT B – AREA MAP



2,000 1,000 0 2,000 Feet

Legend

Property Boundary

Reference

Base map comprised of U.S.G.S. 7.5 minute topographic maps, "East Liverpool North, WV", "East Liverpool South, WV", "Westville, WV", and "West Point, OH".

Site Location Map

Title V Renewal Application
Newell, Hancock County, West Virginia

Ergon-West Virginia, Inc
Newell Refinery

PROVIDENCE

Drawn By	LMM	07/16/14
Checked By	LMH	07/16/14
Approved By	JDA	07/16/14

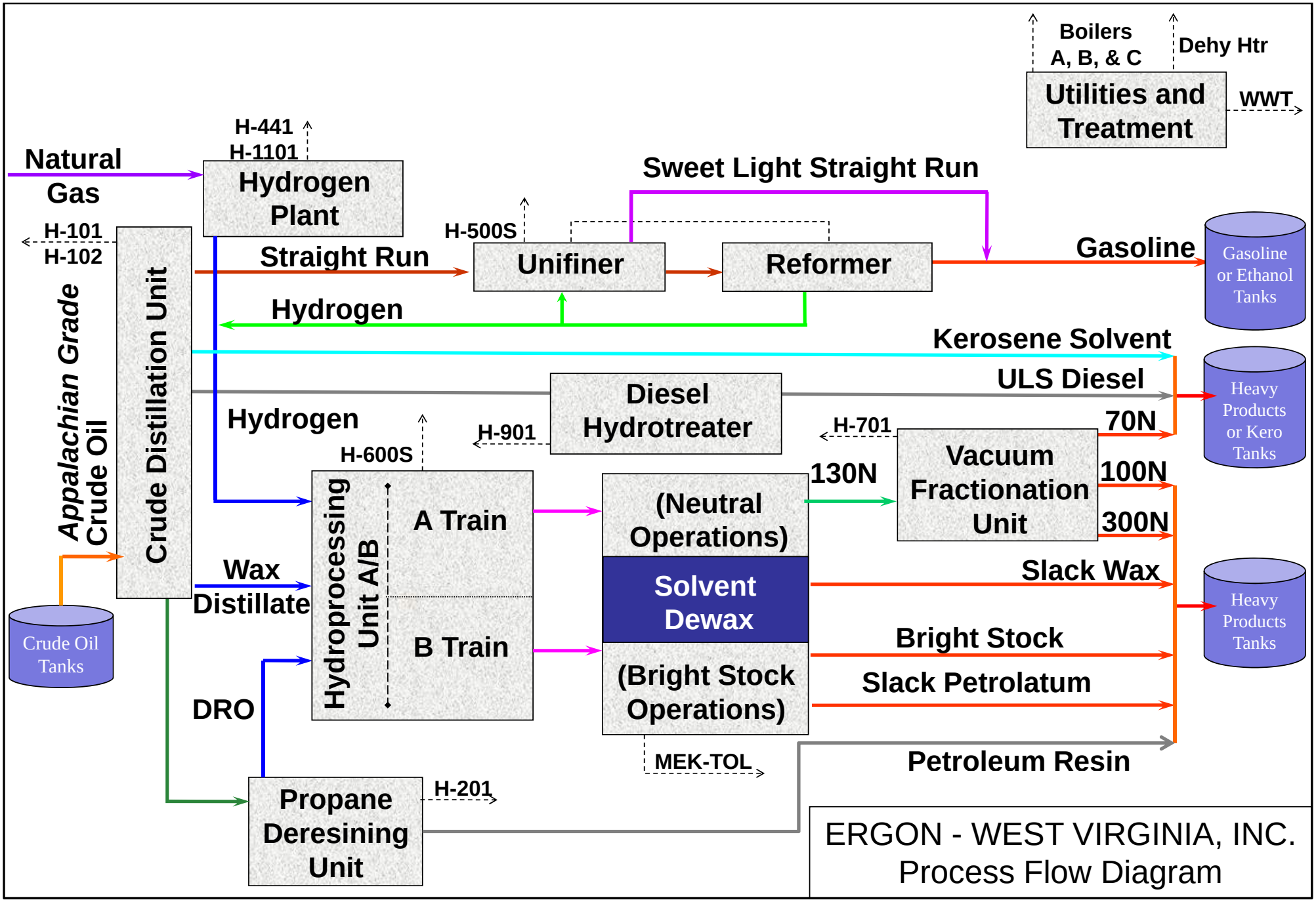
Project Number 098-057

Drawing Number 098-057-A001

B
Attachment

Providence Engineering and Environmental Group LLC

ATTACHMENT C – PROCESS FLOW DIAGRAM


Boilers
A, B, & C
Dehy Htr
Utilities and Treatment
WWT
H-441
H-1101
Natural Gas
Hydrogen Plant
Sweet Light Straight Run
H-500S
H-101
H-102
Straight Run
Unifiner
Reformer
Gasoline
Gasoline or Ethanol Tanks
Hydrogen
Kerosene Solvent
Appalachian Grade Crude Oil
Crude Distillation Unit
ULS Diesel
Diesel Hydrotreater
Heavy Products or Kero Tanks
Hydrogen
H-901
H-701
70N
H-600S
130N
Vacuum Fractionation Unit
100N
300N
Hydroprocessing Unit A/B
A Train
(Neutral Operations)
Wax Distillate
Solvent Dewax
Slack Wax
Heavy Products Tanks
Crude Oil Tanks
B Train
Bright Stock
(Bright Stock Operations)
Slack Petrolatum
DRO
MEK-TOL
Petroleum Resin
Propane Deresining Unit
H-201
ERGON - WEST VIRGINIA, INC.
Process Flow Diagram

ATTACHMENT D – EMISSION UNITS TABLE

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
001-01	N/A	H-101R	CDU Atmospheric Heater; refinery fuel gas/natural gas blend	54.5 MMBtu/hr	2012
001-02	N/A	H-102R	CDU Vacuum Heater; refinery fuel gas/natural gas blend	29.4 MMBtu/hr	2012
002-01	N/A	H-201	PDR Heater; refinery fuel gas/natural gas blend or fuel oil	6.6 MMBtu/hr	1972
003-01	N/A	MEK-TOL	Solvent Dewaxing Unit	N/A	1972
004-01	N/A	H-500S	H500 Series Heaters Unifiner/Platformer Unit; refinery fuel gas/natural gas blend	59.6 MMBtu/hr	1972/2013
004-02	N/A	H-501R	Unifiner Charge Heater	11.5 MMBtu/hr	2013
005-01	N/A	H-600S	H600 Series Heaters, ISOMAX Unit; refinery fuel gas/natural gas blend	41.6 MMBtu/hr	1972
005-02	N/A	H-441	Hydrogen Plant Heater; natural gas	12.3 MMBtu/hr	1972
006-01	N/A	H-701	VFU Heater; refinery fuel gas/natural gas blend	12.1 MMBtu/hr	1983
007-01	N/A	Boiler A	Boiler A; refinery fuel gas/natural gas blend	159.5 MMBtu/hr	1972
007-02	N/A	Boiler B	Boiler B; refinery fuel gas/natural gas blend	159.5 MMBtu/hr	1972
007-03	N/A	Boiler C	Boiler C; refinery fuel gas/natural gas blend	95 MMBtu/hr	2000
009-01	00A-02	T Load	Truck Loading	397.8 MMgal/yr	1972/2012/2013
009-02	00A-04	MLD	Marine Barge Loading	460.7 MMgal/yr	1972/2012
00A-01	N/A	F1	Main/Sour Gas Flare	N/A	1972
00A-02	N/A	OXIDIZER	Thermal Oxidizer (98.7% min efficiency)	17,346 MMBtu/yr	1994/2012/2013
00A-03	N/A	CARBONBED	Carbon Bed Adsorber	6,000 cfm	2002
00A-04	N/A	MLDOX	Barge Loading Thermal Oxidizer (98% min efficiency)	59 MMBtu/hr	2012
00A-05	N/A	NH3OX	Ammonia Destruction Unit Thermal Oxidizer (99.9% DRE)	6.6 MMBtu/hr	2015
00B-01	00A-03	WWT	Wastewater Treatment Plant	600 gpm	1972
00B-02	N/A	EQLEAKS	Equipment Leak Fugitives	N/A	N/A
00D-01	N/A	Dehy Htr	Dehydration Heater	0.59 MMBtu/hr	1991
00D-02	N/A	Still	Glycol Dehydration Still	N/A	1991
00P-01	N/A	FWPUMP1	Diesel Firewater Pump at River Dock	17 gal/hr	2006
00P-02	N/A	FWPUMP2	Diesel Firewater Pump at Boiler House	17 gal/hr	1993
303	N/A	TK-303	Fixed Roof (MEK)	7,875 gal	1970
304	N/A	TK-304	Fixed Roof (Toluene)	7,875 gal	1970

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
4000	N/A	TK-4000	External Floating Roof; Mechanical Shoe (Crude Oil)	2,310,000 gal	1992/2012
4001	N/A	TK-4001	External Floating Roof; Mechanical Shoe (Crude Oil)	2,310,000 gal	1973/2012
4002	N/A	TK-4002	External Floating Roof; Mechanical Shoe (Heavy/Kerosene)	2,310,000 gal	1970
4003	N/A	TK-4003	External Floating Roof; Mechanical Shoe (Heavy/Kerosene)	2,310,000 gal	1970
4004	N/A	TK-4004	External Floating Roof; Mechanical Shoe (Gasoline)	1,050,000 gal	1971/2013
4005	N/A	TK-4005	External Floating Roof; Mechanical Shoe (Gasoline)	1,050,000 gal	1971
4006	N/A	TK-4006	External Floating Roof; Mechanical Shoe (Gasoline)	1,050,000 gal	1971/2013
4007	N/A	TK-4007	Fixed Roof (Heavy)	2,310,000 gal	1971
4008	N/A	TK-4008	Fixed Roof (Heavy)	1,260,000 gal	1970
4009	N/A	TK-4009	Fixed Roof (Heavy/Kerosene)	1,260,000 gal	1971
4010	N/A	TK-4010	Fixed Roof (Heavy)	1,260,000 gal	1970
4011	N/A	TK-4011	Fixed Roof (Heavy/Kerosene)	1,239,568 gal	1971
4012	N/A	TK-4012	Internal Floating Roof; Mechanical Shoe (Gasoline)	630,000 gal	1971
4013	N/A	TK-4013	Internal Floating Roof; Mechanical Shoe (Gasoline)	630,000 gal	1971
4014	N/A	TK-4014	External Floating Roof; Mechanical Shoe (Gasoline)	315,000 gal	1971/2013
4015	N/A	TK-4015	External Floating Roof; Mechanical Shoe (Gasoline)	315,000 gal	1971/2013
4016	N/A	TK-4016	External Floating Roof; Mechanical Shoe (Gasoline)	315,000 gal	1971
4017	N/A	TK-4017	Fixed Roof (Heavy)	840,000 gal	1971
4018	N/A	TK-4018	Fixed Roof (Heavy)	704,970 gal	1971
4019	N/A	TK-4019	Fixed Roof (Heavy)	704,970 gal	1971
4020	N/A	TK-4020	Fixed Roof (Heavy)	840,000 gal	1971
4021	N/A	TK-4021	Fixed Roof (Heavy)	840,000 gal	1971
4022	N/A	TK-4022	Fixed Roof (Heavy)	571,200 gal	1971
4023	N/A	TK-4023	Fixed Roof (Heavy)	571,200 gal	1971
4024	N/A	TK-4024	Fixed Roof (Heavy)	840,000 gal	1970

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
4025	N/A	TK-4025	Fixed Roof (Heavy)	840,000 gal	1970
4026	N/A	TK-4026	Fixed Roof (Heavy)	840,000 gal	1970
4027	N/A	TK-4027	Fixed Roof (Heavy)	840,000 gal	1971
4028	N/A	TK-4028	Fixed Roof (Heavy)	210,000 gal	1971
4029	N/A	TK-4029	Fixed Roof (Heavy)	65,100 gal	1971
4030	N/A	TK-4030	Fixed Roof (Heavy)	65,100 gal	1971
4031	N/A	TK-4031	Fixed Roof (Heavy)	315,000 gal	1971
4032	N/A	TK-4032	Fixed Roof (Heavy)	315,000 gal	1971
4033	N/A	TK-4033	Fixed Roof (Heavy)	315,000 gal`	1970
4034	N/A	TK-4034	Fixed Roof (Heavy)	840,000 gal	1998
4035	N/A	TK-4035	Fixed Roof (Heavy)	840,000 gal	1983
4036	N/A	TK-4036	Fixed Roof (Heavy)	315,000 gal	1973
4037	N/A	TK-4037	Fixed Roof (Heavy)	315,000 gal	1973
4038	N/A	TK-4038	Fixed Roof (Heavy)	840,000 gal	1976
4039	N/A	TK-4039	Fixed Roof (Heavy)	1,260,000 gal	1977
4040	N/A	TK-4040	Fixed Roof (Heavy)	630,000 gal	1978
4041	N/A	TK-4041	Fixed Roof (Heavy)	630,000 gal	1973
4042	N/A	TK-4042	Fixed Roof (Heavy)	630,000 gal	1978
4043	N/A	TK-4043	Fixed Roof (Heavy)	630,000 gal	1978
4044	N/A	TK-4044	Fixed Roof (Heavy)	1,260,000 gal	1982
4045	N/A	TK-4045	Fixed Roof (Heavy)	630,000 gal	1982
4046	N/A	TK-4046	Fixed Roof (Heavy)	630,000 gal	1982
4047	N/A	TK-4047	Fixed Roof (Heavy)	1,260,000 gal	1986
4048	N/A	TK-4048	Fixed Roof (Heavy)	504,000 gal	1986
4050	N/A	TK-4050	Internal Floating Roof; Mechanical Shoe (Gasoline)	630,000 gal	1993/2013

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
4051	N/A	TK-4051	Fixed Roof (Heavy)	1,260,000 gal	1996
4052	N/A	TK-4052	Fixed Roof (Ethanol)	30,240 gal	1972
4053	N/A	TK-4053	Fixed Roof (Ethanol)	30,240 gal	1972
4054	N/A	TK-4054	Fixed Roof (Heavy/Kerosene)	625,000 gal	1998
4055	N/A	TK-4055	Fixed Roof (Heavy/Kerosene)	625,000 gal	1998
4056	N/A	TK-4056	Fixed Roof (Heavy/Kerosene)	625,000 gal	1999
4057	N/A	TK-4057	Fixed Roof (Heavy/Kerosene)	625,000 gal	1999
4060	N/A	TK-4060	Internal Floating Roof; Mechanical Shoe (Crude Oil)	5,040,000 gal	1999/2012
4061	N/A	TK-4061	Internal Floating Roof; Mechanical Shoe (Crude Oil)	5,040,000 gal	2008/2012
4062	N/A	TK-4062	Internal Floating Roof; Mechanical Shoe (Light Crude Oil TVP ≤ 11.0 psia)	5,040,000 gal	2008/2012
4063	N/A	TK-4063	Internal Floating Roof; Mechanical Shoe (Light Crude Oil TVP ≤ 11.0 psia)	5,040,000 gal	2012
4066	N/A	TK-4066	Fixed Roof (Biodiesel)	40,000 gal	2011
4103	N/A	TK-4103	Fixed Roof (Heavy)	127,000 gal	1970
4104	N/A	TK-4104	Fixed Roof (Heavy)	127,000 gal	1970
ADUFUG	N/A	ADUFUG	Ammonia Destruction Unit Fugitives	N/A	2015
CDU	00A-01	CDU	Crude Distillation Unit	803,000 bbl/mo	1972/2012
EPN 01	N/A	H-901	DHT Heater	27.5 MMBtu/hr	2005
EPN 03	N/A	H-1101	Hydrogen Plant Heater	38.8 MMBtu/hr	2005
ISOM	N/A	ISOM	Processing Unit; Benzene Reduction	21.6 MMgal/yr	2012
NS-FUG	N/A	NS-FUG	Naphtha Splitter Fugitives	N/A	2011

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT E – EMISSION UNIT FORMS

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
001-01	H-101R	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
CDU Atmospheric Heater; refinery fuel gas/natural gas blend

Manufacturer:	**Model number:**	**Serial number:**
Econotherm	Not Available	J70-786
Construction date:	**Installation date:**	**Modification date(s):**
2012	2012	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
54.5 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
53,431 cf/hr	468 MMcf/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __X__Yes ___ No	**If yes, is it?** ___ Indirect Fired __X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 54.5 MMBtu/hr	**Type and Btu/hr rating of burners:** Low NOx Burner 54.5 MMBtu/hr

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.
Refinery Fuel Gas/Natural Gas Blend
Max Hourly Usage = 53,431 cf/hr
Max Annual Usage = 468 MMcf/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Refinery Fuel Gas/Natural Gas Blend	0.016%	N/A	1,020 Btu/cf

Page _____ of _____

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	1.64	7.16
Nitrogen Oxides (NO_X)	3.54	15.52
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.41	1.78
Particulate Matter (PM_{10})	0.41	1.78
Total Particulate Matter (TSP)	0.41	1.78
Sulfur Dioxide (SO_2)	1.10	4.83
Volatile Organic Compounds (VOC)	0.27	1.19
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.).

Emission factors for CO and VOC are based on the manufacturer's guarantee.

The NOx emission factor is a manufacturer's guarantee for a heater with low-NOx burners.

The emission factor for SO2 is based on 160 ppm H2S limit, based on 40 CFR 60, Subpart J limitations.

The emission factor for PM was obtained from U.S. EPA Document AP-42, "Compilation of Air Pollutant Emission Factors, Volume I: Stationary and Area Sources," Office of Air Quality Planning and Standards, Research Triangle Park, NC.

*For the purpose of the Title V Permitting, it is assumed that $PM_{2.5}$=PM_{10}=TSP

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.

Applicable Requirement – 45 CSR 2
Limitations – Sections 4.1.1, 4.1.2, 4.1.3, 4.1.6, 4.1.7, 4.1.8 – R13-2334V
Applicable Requirement – 45 CSR 10
Limitations – Sections 4.1.9, 4.1.10, 4.1.11 – R13-2334V
Applicable Requirement – 45 CSR 13
Limitations – Sections 4.1.5 – R13-2334V
Applicable Requirement – CO-SIP-95
Limitations – N/A
Applicable Requirement – 40 CFR Subpart Ja
Limitations – 4.1.15, 4.1.17, 4.1.18, 4.1.19 – R13-2334V

__X__ 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.)

Monitoring:
Visual emission checks of each emission point subject to an opacity limit shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using 40 CFR 60 Appendix A, Method 22. If natural gas is being combusted, the visual emissions checks shall be conducted monthly. If fuel oil is being combusted, the visual emissions checks shall be conducted weekly. If visible emissions are identified during the survey, or at any time, EWVI shall take corrective action to minimize the emissions immediately. If during these checks, or at any time, visible emissions are observed, a visible emission evaluation shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, the name of the observer, and any data required by 40 CFR 60 Appendix A, Method 22 or Method 9.
[Permit R13-2334V – Section 4.2.1]

To demonstrate compliance with the emissions limitations requirements of 40 CFR§ 60.102a and permit condition 4.1.17, the permittee shall continuously monitor the concentration ofH2S in refinery fuel gas consumed by the heaters and meet the monitoring of emissions and operations for fuel gas combustion devices and flares requirements of40 CFR§60.107a.
[40 CFR §60.107a, NSPS Subpart Ja; Permit R13-2334V – Section 4.2.7]

Testing:
The permittee is subject to the performance test requirements established in 40 CFR§60.1 04a.
[40 CFR§60.104a, NSPS Subpart Ja; Permit R13-2334V – Section 4.3.1]

Recordkeeping:
Record of Monitoring. The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;
b. The date(s) analyses were performed;
c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;
e. The results of the analyses; and
f. The operating conditions existing at the time of sampling or measurement.

[Permit R13-2334V – Section 4.4.1]

Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

[Permit R13-2334V – Section 4.4.2]

Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.
   For each such case associated with an equipment malfunction, the additional information shall also be recorded:
e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[Permit R13-2334V – Section 4.4.3]

To determine compliance with restrictions set forth in Section 4.1.4., the permittee shall document the frequency, length of time, amount of fuel oil consumed, and estimate of emissions during DOT maintenance and periods of natural gas curtailment in which fuel oil was combusted. To determine compliance with fuel oil sulfur content limits set forth in Section 4.1.4., the pern1ittee shall keep records of the sulfur content of all fuel oil recei ved for the purpose of combustion. Each batch of fuel oil shall have its sulfur content determined by test method ASTM D4294. This information along with appropriate emission factors from EPA's AP-42 Fifth Edition, Volume 1, Supplement E, Chapter 1.3 may be used to estimate emissions.

[Permit R13-2334V – Section 4.4.4]

EWVI shall maintain a periodic exception report for each unit. Such reports shall include, but may not be limited to the date and time of start-ups and shutdowns. All such requirements, including notification by telephone, telefax, or other such method determined by the Director, shall be deemed to be satisfied when the reports are maintained on site for a period of no less than five (5) years and shall be made available upon request to the Director of his/her duly authorized representative.

[45 CSR 2-8.3.b.; 45 CSR 13 – Permit R13-2334V – Section 4.4.5]

The permittee shall maintain records of the operating schedule and the quantity of fuel consumed in each fuel burning unit monthly, at a minimum, but may record it more often at the discretion of the permittee.

[45CSR§2-8.3.c.; Permit R13-2334V – Section 4.4.6]

The owner or operator of fuel burning unites), manufacturing process source(s) or combustion source(s) subject to 45CSR§§ 10-3,4 or 5 shall maintain on-site a record of all required monitoring data as established in a monitoring plan pursuant to 45CSR§ 10-8.2.c. Such records shall be made available to the Director or his duly authorized representative upon request. Such records shall be retained on-site for a minimum of five years.

[45CSR§10-8.3.a.; Permit R13-2334V – Section 4.4.7]

The owner or operator of a fuel burning unit(s) or a combustion source(s) shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each unit in a manner specified by the Director. Such records are to be maintained on-site and made available to the Director or his

duly authorized representative upon request.
[45CSR§10-8.3.c.; Permit 13R-2334V – Section 4.4.8]

To determine compliance with the emission limits set forth for H-101R, H-102R, and H-501R set forth in Section 4.1.16, the permittee shall keep monthly records of the amount of fuel gas (refinery plus natural gas) consumed within both heaters for H-101R and H-102R and individually for H-501R. This information along with appropriate emission factors from EPA's AP-42 Fifth Edition, Volume I, Supplement D, Chapter 1.4. may be used to estimate monthly emissions of all pollutants except NO_x, and SO_2. SO_2 emission factors shall be based on the 1995 S02 SIP and heating value (HHV) of 1019 Btu/scf, which sets a limit of 0.13260 lb/MMBtu. Compliance with the yearly limit shall be based on a 12-month rolling total. Compliance with the SO_2 limit shall demonstrate compliance with the less stringent requirement of CO-SIP-95-1 - Condition IV.4. (SIPed) and 45CSR§10-3.I.e.
[Permit R13-2334V – Section 4.4.11]

For any periods for which sulfur dioxide or oxides emissions data are not available, the owner or operator of the affected facility shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.
[40 C.F.R. §60.107(d), NSPS Subpart J and 45CSR §16-4.1; Permit R13-2334V – Section 4.4.14]

Each owner or operator subject to the emissions limitations in §60.102a shall comply with the notification, recordkeeping, and reporting requirements in §60. 7 and other requirements as specified in this section.
[40 CFR §60.l08a, NSPS Subpart Ja; Permit 13R-2334V – Section 4.4.18]

Reporting:
EWVI shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in 45CSR§§2-3 and 4) as provided in one of the following subdivisions:

a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:
   1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and
   2. Excess opacity does not exceed 40%.
b. EWVI shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in 45CSR§2-9.3.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. EWVI shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:
   1. A detailed explanation of the factors involved or causes of the malfunction;
   2. The date and time of duration (with starting and ending times) of the period of excess emissions;
   3. An estimate of the mass of excess emissions discharged during the malfunction period;
   4. The maximum opacity measured or observed during the malfunction;
   5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
   6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45 CSR 2-9.3; 45 CSR 13 – Permit R13-2334V – Section 4.5.1]

The owner or operator shall submit a periodic exception report to the Director, in a manner specified by the Director. Such an exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan (see Appendix A) and shall include, but not be limited to, the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion and the corrective action taken.
[45CSR§10-S.3.b.; Permit R13-2334V – Section 4.5.2]

Each owner or operator subject to the emissions limitations in §60.102a shall comply with the notification, recordkeeping, and reporting requirements in §60.7 and other requirements as specified

in this section. **[40 C.F.R. §60.108a, NSPS Subpart Ja; Permit R13-2334V – Section 4.5.5]**
Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
001-02	H-102R	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
CDU Vacuum Heater; refinery fuel gas/natural gas blend or fuel oil

Manufacturer:	**Model number:**	**Serial number:**
Econotherm	Not Available	J70-787
Construction date:	**Installation date:**	**Modification date(s):**
2012	2012	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
29.4 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
28,824 cf/hr	252 MMcf/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X__Yes ___ No	**If yes, is it?** ___ Indirect Fired _X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 29.4 MMBtu/hr	**Type and Btu/hr rating of burners:** Low NOx Burner 29.4 MMBtu/hr

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.
Refinery Fuel Gas/Natural Gas Blend
Max Hourly Usage = 28,824 cf/hr
Max Annual Usage = 252 MMcf/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Refinery Fuel Gas/Natural Gas Blend	0.016%	N/A	1,020 Btu/cf

Page _____ of _____

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.88	3.86
Nitrogen Oxides (NO_X)	1.01	8.37
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.22	0.96
Particulate Matter (PM_{10})	0.22	0.96
Total Particulate Matter (TSP)	0.22	0.96
Sulfur Dioxide (SO_2)	0.59	2.61
Volatile Organic Compounds (VOC)	0.15	0.64
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.).

Emission factors for CO, NO_x and VOC are based on the manufacturer's guarantee.

SO_2 emission factor is for Refinery Fuel Gas, SO_2 emission factor conservatively based on average annual sulfur content of 160 ppm and heating value (HHV) of 1019 Btu/scf .

The emission factor for PM was obtained from U.S. EPA Document AP-42, “Compilation of Air Pollutant Emission Factors, Volume I: Stationary and Area Sources,” Office of Air Quality Planning and Standards, Research Triangle Park, NC.

*For the purposes of Title V Permitting, it is assumed that $PM_{2.5}$=PM_{10}=TSP.

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.

Applicable Requirement – 45 CSR 2
Limitations – Sections 4.1.1, 4.1.2, 4.1.3, 4.1.6, 4.1.7, 4.1.8 – R13-2334V
Applicable Requirement – 45 CSR 10
Limitations – Sections 4.1.9, 4.1.10, 4.1.11 – R13-2334V
Applicable Requirement – 45 CSR 13
Limitations – Sections 4.1.5 – R13-2334V
Applicable Requirement – CO-SIP-95
Limitations – N/A
Applicable Requirement – 40 CFR Subpart Ja
Limitations – 4.1.15, 4.1.17, 4.1.18, 4.1.19 – R13-2334V

__X__ 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.)

Monitoring:
Visual emission checks of each emission point subject to an opacity limit shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using 40 CFR 60 Appendix A, Method 22. If natural gas is being combusted, the visual emissions checks shall be conducted monthly. If fuel oil is being combusted, the visual emissions checks shall be conducted weekly. If visible emissions are identified during the survey, or at any time, EWVI shall take corrective action to minimize the emissions immediately. If during these checks, or at any time, visible emissions are observed, a visible emission evaluation shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, the name of the observer, and any data required by 40 CFR 60 Appendix A, Method 22 or Method 9.
[Permit R13-2334V – Section 4.2.1]

To demonstrate compliance with the emissions limitations requirements of 40 CFR§ 60.102a and permit condition 4.1.17, the permittee shall continuously monitor the concentration ofH2S in refinery fuel gas consumed by the heaters and meet the monitoring of emissions and operations for fuel gas combustion devices and flares requirements of40 CFR§60.107a.
[40 CFR §60.107a, NSPS Subpart Ja; Permit R13-2334V – Section 4.2.7]

Testing:
The permittee is subject to the performance test requirements established in 40 CFR§60.1 04a.
[40 CFR§60.104a, NSPS Subpart Ja; Permit R13-2334V – Section 4.3.1]

Recordkeeping:
Record of Monitoring. The permittee shall keep records of monitoring information that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;
b. The date(s) analyses were performed;
c. The company or entity that performed the analyses;

d. The analytical techniques or methods used;
e. The results of the analyses; and
f. The operating conditions existing at the time of sampling or measurement.

[Permit R13-2334V – Section 4.4.1]

Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.

[Permit R13-2334V – Section 4.4.2]

Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.
   For each such case associated with an equipment malfunction, the additional information shall also be recorded:
e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[Permit R13-2334V – Section 4.4.3]

To determine compliance with restrictions set forth in Section 4.1.4., the permittee shall document the frequency, length of time, amount of fuel oil consumed, and estimate of emissions during DOT maintenance and periods of natural gas curtailment in which fuel oil was combusted. To determine compliance with fuel oil sulfur content limits set forth in Section 4.1.4., the pern1ittee shall keep records of the sulfur content of all fuel oil recei ved for the purpose of combustion. Each batch of fuel oil shall have its sulfur content determined by test method ASTM D4294. This information along with appropriate emission factors from EPA's AP-42 Fifth Edition, Volume 1, Supplement E, Chapter 1.3 may be used to estimate emissions.

[Permit R13-2334V – Section 4.4.4]

EWVI shall maintain a periodic exception report for each unit. Such reports shall include, but may not be limited to the date and time of start-ups and shutdowns. All such requirements, including notification by telephone, telefax, or other such method determined by the Director, shall be deemed to be satisfied when the reports are maintained on site for a period of no less than five (5) years and shall be made available upon request to the Director of his/her duly authorized representative.

[45 CSR 2-8.3.b.; 45 CSR 13 – Permit R13-2334V – Section 4.4.5]

The permittee shall maintain records of the operating schedule and the quantity of fuel consumed in each fuel burning unit monthly, at a minimum, but may record it more often at the discretion of the permittee.

[45CSR§2-8.3.c.; Permit R13-2334V – Section 4.4.6]

The owner or operator of fuel burning unites), manufacturing process source(s) or combustion source(s) subject to 45CSR§§ 10-3,4 or 5 shall maintain on-site a record of all required monitoring data as established in a monitoring plan pursuant to 45CSR§ 10-8.2.c. Such records shall be made available to the Director or his duly authorized representative upon request. Such records shall be retained on-site for a minimum of five years.

[45CSR§10-8.3.a.; Permit R13-2334V – Section 4.4.7]

The owner or operator of a fuel burning unit(s) or a combustion source(s) shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each unit in a manner specified by the Director. Such records are to be maintained on-site and made available to the Director or his

duly authorized representative upon request.
[45CSR§10-8.3.c.; Permit 13R-2334V – Section 4.4.8]

To determine compliance with the emission limits set forth for H-101R, H-102R, and H-501R set forth in Section 4.1.16, the permittee shall keep monthly records of the amount of fuel gas (refinery plus natural gas) consumed within both heaters for H-101R and H-102R and individually for H-501R. This information along with appropriate emission factors from EPA's AP-42 Fifth Edition, Volume I, Supplement D, Chapter 1.4. may be used to estimate monthly emissions of all pollutants except NO_x, and SO_2. SO_2 emission factors shall be based on the 1995 S02 SIP and heating value (HHV) of 1019 Btu/scf, which sets a limit of 0.13260 lb/MMBtu. Compliance with the yearly limit shall be based on a 12-month rolling total. Compliance with the SO_2 limit shall demonstrate compliance with the less stringent requirement of CO-SIP-95-1 - Condition IV.4. (SIPed) and 45CSR§10-3.I.e.
[Permit R13-2334V – Section 4.4.11]

For any periods for which sulfur dioxide or oxides emissions data are not available, the owner or operator of the affected facility shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.
[40 C.F.R. §60.107(d), NSPS Subpart J and 45CSR §16-4.1; Permit R13-2334V – Section 4.4.14]

Each owner or operator subject to the emissions limitations in §60.102a shall comply with the notification, recordkeeping, and reporting requirements in §60. 7 and other requirements as specified in this section.
[40 CFR §60.l08a, NSPS Subpart Ja; Permit 13R-2334V – Section 4.4.18]

Reporting:
EWVI shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in 45CSR§§2-3 and 4) as provided in one of the following subdivisions:

a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:
   1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and
   2. Excess opacity does not exceed 40%.
b. EWVI shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in 45CSR§2-9.3.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. EWVI shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:
   1. A detailed explanation of the factors involved or causes of the malfunction;
   2. The date and time of duration (with starting and ending times) of the period of excess emissions;
   3. An estimate of the mass of excess emissions discharged during the malfunction period;
   4. The maximum opacity measured or observed during the malfunction;
   5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
   6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45 CSR 2-9.3; 45 CSR 13 – Permit R13-2334V – Section 4.5.1]

The owner or operator shall submit a periodic exception report to the Director, in a manner specified by the Director. Such an exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan (see Appendix A) and shall include, but not be limited to, the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion and the corrective action taken.
[45CSR§10-S.3.b.; Permit R13-2334V – Section 4.5.2]

Each owner or operator subject to the emissions limitations in §60.102a shall comply with the notification, recordkeeping, and reporting requirements in §60.7 and other requirements as specified

in this section. **[40 C.F.R. §60.108a, NSPS Subpart Ja; Permit R13-2334V – Section 4.5.5]**
Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
002-01	H-201	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
PDR Heater; refinery fuel gas/natural gas blend or fuel oil

Manufacturer:	**Model number:**	**Serial number:**
Econotherm	Not Available	J70-788
Construction date:	**Installation date:**	**Modification date(s):**
03/01/1972	04/01/1972	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6.6 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
6,471 cf/hr	56.68 MMcf/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X__Yes ___ No	**If yes, is it?** ___ Indirect Fired _X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 6.6 MMBtu/hr	**Type and Btu/hr rating of burners:** Low NOx Burner 6.6 MMBtu/hr

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.
Refinery Fuel Gas/Natural Gas Blend
Max Hourly Usage = 6,471 cf/hr
Max Annual Usage = 56.68 MMcf/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Refinery Fuel Gas/ Natural Gas Blend	0.016%	N/A	1,020 Btu/cf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.54	2.38
Nitrogen Oxides (NO_X)	0.63	2.76
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.05	0.22
Particulate Matter (PM_{10})	0.05	0.22
Total Particulate Matter (TSP)	0.05	0.22
Sulfur Dioxide (SO_2)	0.17	0.77
Volatile Organic Compounds (VOC)	0.04	0.16
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.).

The emission factors for PM, CO, and VOC were obtained from U.S. EPA Document AP-42, "Compilation of Air Pollutant Emission Factors, Volume I: Stationary and Area Sources," Office of Air Quality Planning and Standards, Research Triangle Park, NC.

The emission factor for SO_2 is based on 160 ppm H_2S limit, based on 40 CFR 60, Subpart J limitations.

The emission factor for NOx is based on performance testing.

*For the purposes of Title V Permitting, it is assumed that $PM_{2.5}$=PM_{10}=TSP.

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.

Applicable Requirement - 45 CSR 2
Limitations – Sections 4.1.1, 4.1.3, 4.1.4 - R13-2334M
Applicable Requirement - 45 CSR 10
Limitations – Sections 4.1.12 - R13-2334M
Applicable Requirement - 45 CSR 13
Limitations – Sections 4.1.6, 4.1.22 - R13-2334M
Applicable Requirement – CO-SIP-95
Limitations – N/A

__X__ 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.)

45 CSR 2
Monitoring:
Visual emission checks of each emission point subject to an opacity limit shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using 40 CFR 60 Appendix A, Method 22. If natural gas is being combusted, the visual emissions checks shall be conducted monthly. If fuel oil is being combusted, the visual emissions checks shall be conducted weekly. If visible emissions are identified during the survey, or at any other time, EWVI shall take corrective action to minimize the emissions immediately. If during these checks, or at any other time, visible emissions are observed, a visible emission evaluation shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, the name of the observer, and any data required by 40 CFR 60 Appendix A, Method 22 or Method 9.
[45 CSR 13 - Permit R13-2334 - 4.2.1]

Testing:
N/A

Recordkeeping:
N/A

Reporting:
The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment efficiency shall be reviewed by the Director. No person shall cause, suffer, allow or permit the addition of sulfur oxides as described above unless written approval for such addition is provided by the Director.
[45 CSR 2-4.4; 45CSR13 - Permit R13-2334 - 4.1.2]

45 CSR 10
Monitoring:
Compliance with the hydrogen sulfide concentration limit of 230 mg/dscm (0.10 gr/dscf) shall be demonstrated using a continuous emission monitoring system which shall comply with the following provisions of 40 CFR Part 60: Part 60.13(a), (c), (d)(1), (e)(2), (f), (g), (h), (i), (j), Part 60.105(a)(4), Part 60.106(e) part 60, Appendix A, Method 11, Part 60; Appendix B, Performance Specification 7.

[45 CSR 13 – Permit R13-2334 – 4.2.2]

Testing:
N/A

Recordkeeping:
N/A

Reporting:
Due to unavoidable malfunction of equipment or inadvertent fuel shortages, emissions exceeding those provided for in 45CSR10 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction or fuel shortage. In cases of major equipment failure or extended shortages of conforming fuels, additional time periods may be granted by the Director provided a corrective program has been submitted by EWVI and approved by the Director.
[45 CSR 10-9.1 and 45 CSR 13 - Permit R13-2334 - 4.1.5]

45 CSR 13
Monitoring:
N/A

Testing:
EWVI shall conduct a performance test to determine NOx emissions rate limits. Such performance test shall be conducted in accordance with an approved EPA method and shall be performed during the operating condition of combusting the maximum amount of refinery fuel gas within the natural gas/refinery fuel gas mixture feasible at the time of the test (with the understanding that the maximum percentage of refinery fuel gas within the mixture could be as high as 100%). At least 30 days prior to testing, EWVI shall submit a test protocol subject to approval by the Director.
[45 CSR 13 – Permit R13-2334 – 4.3.3]

Recordkeeping:
EWVI shall document the frequency, length of time, amount of fuel oil consumed, and estimate of emissions during DOT maintenance and periods of natural gas curtailment in which fuel oil was combusted. EWVI shall keep records of the sulfur content of all fuel oil received for the purpose of combustion. Each batch of fuel oil shall have its sulfur content determined by test method, ASTM D4294. This information, along with appropriate emission factors from *EPA's AP-42 Fifth Edition, Volume I, Supplement E, Chapter 1.3*, may be used to estimate emissions.
[45 CSR 13 – R13-2334 – 4.4.1]

To determine compliance with the emissions limits, EWVI shall keep monthly records of the amount of fuel gas (refinery plus natural gas) consumed within the heater. This information, along with appropriate emission factors from *EPA's Supplement D, Chapter 1.4*, may be used to estimate monthly emissions of all pollutants except SO_2. SO_2 emission factors shall be based on the 1995 SIP and heating value (HHV), which sets a limit of 0.13260 lb/MMBtu. Compliance with the yearly limit shall be based on a 12-month rolling total.
[45 CSR 13 – Permit R13-2334 – 4.4.10 (H-201, H-500S and H-600S)]

Reporting:
N/A

CO-SIP-95
Monitoring:
Compliance with the emission limitations of CO-SIP-95-1 shall be based upon the averaging time and compliance determination methods below:

EWVI shall have installed and shall calibrate, maintain, and operate a continuous emission monitoring system as herein provided to measure the concentration of hydrogen sulfide in all refinery fuel gas streams. Installation, calibration, maintenance, and operation of such continuous emission monitoring system shall comply with the following provisions of 40 CFR Part 60: Part 60.13(a), (c), (d)(1), (e)(2), (f), (g), (h), (i), (j), Part 60.105(a)(4), Part 60.106(e) part 60, Appendix A, Method 11, Part 60; Appendix B, Performance Specification 7. The Director may approve the installation of sulfur dioxide and oxygen monitoring systems to monitor sulfur dioxide emissions in the exhaust gases from combustion units firing refinery fuel gas in lieu of a hydrogen sulfide monitoring system for the

fuel gas streams. Such SO_2 and oxygen monitoring systems shall be subject to the performance specifications, quality assurance procedures, and other related requirements under 40 CFR Part 60.
[CO-SIP-95-1 – Condition V.6 (SIPed)]

Testing:
During any period of failure or malfunction of the hydrogen sulfide continuous emission monitoring system, H_2S concentrations of the refinery fuel gas shall be determined by collection of not less than two (2) gas samples per eight (8) hour period which are analyzed by gas chromatography for hydrogen sulfide content, density and heating value in accordance with ASTM Method D-1945. EWVI may request approval by the Director of alternative sampling and analytical methods for determination of these parameters during periods when the H_2S monitoring system has failed or malfunctioned.
[CO-SIP-95-1 – Condition V.11 (SIPed)]

Recordkeeping:
EWVI shall maintain records of the occurrence and duration of any start-up, shut-down, or malfunction in the operation of sources subject to CO-SIP-95-1, any malfunction of air pollution control equipment or any periods during which a continuous monitoring system or device is inoperative.
[CO-SIP-95-1 – Condition VI.4 (SIPed)]

EWVI shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by CO-SIP-95-1 or otherwise by the Director.
[CO-SIP-95-1 – Condition VI.5 (SIPed)]

Reporting:
EWVI shall submit an excess emissions and monitoring systems performance report to the Director for all sources for which EWVI is required to maintain and operate a continuous monitoring system or monitoring device for sulfur dioxide or hydrogen sulfide on a calendar monthly basis. All such reports shall be submitted by the 30th day following the end of each calendar month and shall contain the results of all determinations showing excess emissions regardless of whether the determinations are made by continuous monitoring data or by other methods established by CO-SIP-95-1. Written reports of excess emissions shall include the following information:

A. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, the date and time at which the excess emissions started and ended for each occurrence of excess emissions and the process operating time during the reporting period.
B. Specific identification of each period of excess emissions that occurred during start-ups, shut-downs, and malfunctions of the affected facility. Each malfunction report filed with the Director shall be referenced by report number with the date of occurrence and date of report submission noted.
C. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
D. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

If the total duration of excess emissions during the reporting period is less than one percent (1%) of the total operating time for the reporting period, and downtime for the continuous monitoring system for the reporting period is less than five percent (5%) of the total operating time for the reporting period, only the summary report form listed as Figure 1 in 40 CFR Part 60.7(d) shall be submitted, and the excess emission report described above need not be submitted unless requested by the Director. If the total duration of excess emissions for the reporting period is one percent (1%) or greater of the total operating time for the reporting period, or the total continuous system downtime for the reporting period is five percent (5%) or greater of the total operating time for the reporting period, the summary report form and the excess emission report described above shall both be submitted to the Director.
[CO-SIP-95-1 – Condition VI.3 (SIPed)]

EWVI shall report to the Director, by telephone or telefax, any malfunction of such source or its air pollution control equipment which results in any excess sulfur dioxide emission rate or concentration within twenty-four (24) hours of becoming aware of such condition. EWVI shall file a written report concerning the malfunction with the Director within ten (10) days, providing the following information:

A. A detailed explanation of the factors involved or causes of the malfunction.
B. The date and time of duration (with starting and ending times) of the period of excess emissions.
C. An estimate of the mass of excess emissions discharged during the malfunction period.
D. The maximum emission rate or concentration measured or otherwise determined during the malfunction in

units of the applicable emissions standard.

E. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction.

F. A detailed explanation of the corrective measure or program that shall be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[CO-SIP-95-1 – Condition VI.7 (SIPed)]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
003-01	MEK-TOL	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Solvent Dewaxing Unit

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1972	MM/DD/1972	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
N/A

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
360 bbl/hr	2,628,000 bbl/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

***Emissions Data* – There are no emissions from the MEK-TOL unit.**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

N/A

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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. Applicable Requirement - 45 CSR 13 Limitations – Sections 6.1.3 - R13-2334M
__X__ 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.) **45 CSR 13** Monitoring: N/A Testing: N/A Recordkeeping: N/A Reporting: N/A
Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
004-01	H-500S	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
H500 Series Heaters Unifier/Platformer Unit; refinery fuel gas/natural gas blend

Manufacturer:	**Model number:**	**Serial number:**
Econotherm	Not Available	H501 - J70-831, H-502 – J70-832, H-503 – J70-833, H-504 – J70-834, H-505 – J70-835, H-506 – J70-836
Construction date:	**Installation date:**	**Modification date(s):**
03/01/1972	04/01/1972	2013

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
59.6 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
58,431 cf/hr	512 MMcf/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X__Yes ___ No	**If yes, is it?** ___ Indirect Fired _X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 59.6 MMBtu/hr	**Type and Btu/hr rating of burners:** Traditional NOx Burner 59.6 MMBtu/hr

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.
Refinery Fuel Gas/Natural Gas Blend
Max Hourly Usage = 58,431 cf/hr
Max Annual Usage = 512 MMcf/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Refinery Fuel Gas/ Natural Gas Blend	0.016%	N/A	1,020 Btu/cf

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Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	4.91	21.50
Nitrogen Oxides (NO_X)	7.01	32.44
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.44	1.95
Particulate Matter (PM_{10})	0.44	1.95
Total Particulate Matter (TSP)	0.44	1.95
Sulfur Dioxide (SO_2)	1.58	7.06
Volatile Organic Compounds (VOC)	0.32	1.41
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.).

The emission factors for PM, CO, and VOC were obtained from U.S. EPA Document AP-42, "Compilation of Air Pollutant Emission Factors, Volume I: Stationary and Area Sources," Office of Air Quality Planning and Standards, Research Triangle Park, NC.

The emission factor for SO_2 is based on 160 ppm H_2S limit, based on 40 CFR 60, Subpart J limitations.

The emission factor for NOx is based on performance testing.

*For the purposes of Title V Permitting, it is assumed that $PM_{2.5}$=PM_{10}=TSP.

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.

Applicable Requirement - 45 CSR 2
Limitations – Sections 4.1.1, 4.1.2, 4.1.3, 4.1.6, 4.1.7, 4.1.8 - R13-2334V
Applicable Requirement - 45 CSR 10
Limitations – Sections 4.1.9, 4.1.10, 4.1.11 - R13-2334V
Applicable Requirement - 45 CSR 13
Limitations – Sections 4.1.5 - R13-2334V
Applicable Requirement – CO-SIP-95
Limitations – N/A
Applicable Requirement – 40 CFR 60 Subpart J
Limitations – 4.1.25, 4.1.26 – R13-2334V

__X__ 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.)

Monitoring:
Visual emission checks of each emission point subject to an opacity limit shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using 40 CFR 60 Appendix A, Method 22. If natural gas is being combusted, the visual emissions checks shall be conducted monthly. If fuel oil is being combusted, the visual emissions checks shall be conducted weekly. If visible emissions are identified during the survey, or at any other time, EWVI shall take corrective action to minimize the emissions immediately. If during these checks, or at any other time, visible emissions are observed, a visible emission evaluation shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, the name of the observer, and any data required by 40 CFR 60 Appendix A, Method 22 or Method 9.
[45 CSR 13 - Permit R13-2334 - 4.2.1]

To demonstrate compliance with permit condition 4.1.25 (Permit R13-2334V), the permittee shall install, certify, calibrate, maintain, and operate a fuel gas CEMS in accordance with the requirements of 40 CFR 60.11, 60.13, and Part 60 Appendices A and F, and the applicable performance specification test of 40 CFR Part 60 Appendix B.
[40 C.F.R. § 60.105(1)(3), NSPS Subpart J and Consent Decree Civil No.3:03SV1l4010S V.12; Permit R13-2334V – Section 4.2.2]

To demonstrate compliance with the three-hour average NO_x limit of permit condition 4.1.13 of this permit, the permittee shall install, certify, calibrate, maintain, and operate a CEMS on Boilers A and B to measure NO_x and O_2 in accordance with the requirements of 40 CFR 60.11,60.13, and Part 60, Appendices A and F.
[Consent Decree Civil No. 3.03CV1l4010S V.l1.C.i; Permit R13-2334V – Section 4.2.3]

Testing:
N/A

Recordkeeping:
Record of Monitoring. The permittee shall keep records of monitoring infomlation that include the following:

a. The date, place as defined in this permit and time of sampling or measurements;
b. The date(s) analyses were performed;
c. The company or entity that performed the analyses;
d. The analytical techniques or methods used;
e. The results of the analyses; and
f. The operating conditions existing at the time of sampling or measurement.

[Permit R13-2334V – Section 4.4.1]

Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection and/or preventative maintenance procedures.
[Permit R13-2334V – Section 4.4.2]

Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.
   For each such case associated with an equipment malfunction, the additional information shall also be recorded:
e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[Permit R13-2334V – Section 4.4.3]

To determine compliance with restrictions set forth in Section 4.1.4., the permittee shall document the frequency, length of time, amount of fuel oil consumed, and estimate of emissions during DOT maintenance and periods of natural gas curtailment in which fuel oil was combusted. To determine compliance with fuel oil sulfur content limits set forth in Section 4.1.4., the pern1ittee shall keep records of the sulfur content of all fuel oil received for the purpose of combustion. Each batch of fuel oil shall have its sulfur content determined by test method ASTM D4294. This information along with appropriate emission factors from EPA's AP-42 Fifth Edition, Volume 1, Supplement E, Chapter 1.3 may be used to estimate emissions.
[Permit R13-2334V – Section 4.4.4]

The operators of fuel burning units shall maintain a periodic exception report for each unit. Such reports shall include, but may not be limited to the date and time of start-ups and shutdowns. All such requirements, including notification by telephone, telefax, or other such method determined by the Director, shall be deemed to be satisfied when the reports are maintained on site for a period of no less than five (5) years and shall be made available upon request to the Director or his/her duly authorized representative.
[45CSR§2-8.3.b.; Permit R13-2334V – Section 4.4.5]

The permittee shall maintain records of the operating schedule and the quantity of fuel consumed in each fuel burning unit monthly, at a minimum, but may record it more often at the discretion of the permittee.
[45CSR§2-8.3.c.; Permit R13-2334V – Section 4.4.6]

The owner or operator of fuel burning unites), manufacturing process source(s) or combustion source(s) subject to 45CSR§§10-3,4 or 5 shall maintain on-site a record of all required monitoring data as established in a monitoring plan pursuant to 45CSR§ 10-8.2.c. Such records shall be made available to the Director or his duly authorized representative upon request. Such records shall be

retained on-site for a minimum of five years.
[45CSR§10-8.3.a.; Permit R13-2334V – Section 4.4.7]

The owner or operator of a fuel burning unit(s) or a combustion source(s) shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each unit in a manner specified by the Director. Such records are to be maintained on-site and made available to the Director or his duly authorized representative upon request.
[45CSR§10-8.3.c.; Permit R13-2334V – Section 4.4.8]

To determine compliance with the emission limits set forth for H-201, H-500 Series, H-600 Series, and H-70l set forth in Sections 4.1.20 and 4.1.22, the permittee shall keep monthly records of the amount of fuel gas (refinery plus natural gas) consumed within the three heaters, individually. This information along with appropriate emission factors from EPA's Supplement D, Chapter 1.4. may be used to estimate monthly emissions of all pollutants except SO_2. SO_2 emission factors shall be based on the 1995 SIP and heating value (HHV), which sets a limit of 0.13260 lb/MMBtu. Compliance with the yearly limit shall be based on a 12-month rolling total.
[Permit R13-2334V – Section 4.4.13]

For any periods for which sulfur dioxide or oxides emissions data are not available, the owner or operator of the affected facility shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.
[40 C.F.R. §60.107(d), NSPS Subpart J and 45CSR §16-4.1; Permit R13-2334V – Section 4.4.14]

Reporting:
The owner or operator of a fuel burning unit(s) subject to 4SCSR2 shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in 4SCSR§§2-3 and 4) as provided in one of the following subdivisions:

a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:
    1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and
    2. Excess opacity does not exceed 40%.
b. The owner or operator shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in 4SCSR§2-9.3.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. The owner or operator shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:
    1. A detailed explanation of the factors involved or causes of the malfunction;
    2. The date and time of duration (with starting and ending times) of the period of excess emissions;
    3. An estimate of the mass of excess emissions discharged during the malfunction period;
    4. The maximum opacity measured or observed during the malfunction;
    5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
    6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45CSR§2-9.3.; Permit R13-2334V – Section 4.5.1]

The owner or operator shall submit a periodic exception report to the Director, in a manner specified by the Director. Such an exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan (see Appendix A) and shall include, but not be limited to, the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion and the corrective action taken.
[45CSR§10-S.3.b.; Permit R13-2334V – Section 4.5.2]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
004-02	H-501R	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Unifiner Charge Heater; refinery fuel gas/natural gas blend

Manufacturer:	**Model number:**	**Serial number:**
John Zink	COOLstar-11M	H12-109
Construction date:	**Installation date:**	**Modification date(s):**
2013	2013	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
11.5 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
9,457 cf/hr	82.85 MMcf/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __X__ Yes ___ No	**If yes, is it?** __X__ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 11.5 MMBtu/hr	**Type and Btu/hr rating of burners:** 3 Ultra Low NO_x Burners 11.5 MMBtu/hr

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.
Refinery Fuel Gas/Natural Gas Blend
Max Hourly Usage = 9,457 cf/hr
Max Annual Usage = 82.85 MMcf/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Refinery Fuel Gas/Natural Gas Blend	0.016%	N/A	1,020 Btu/cf

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Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.34	1.50
Nitrogen Oxides (NO_X)	0.75	3.27
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.09	0.38
Particulate Matter (PM_{10})	0.09	0.38
Total Particulate Matter (TSP)	0.09	0.38
Sulfur Dioxide (SO_2)	0.25	1.12
Volatile Organic Compounds (VOC)	0.06	0.25
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.).

The emission factors for PM, CO, and VOC were obtained from the U.S. EPA Document AP-42, "Compilation of Air Pollutant Emission Factors, Volume I: Stationary and Area Sources, "Office of Air Quality Planning and Standards, Research Triangle Park, NC.

The SO_2 is based on 162 ppm H_2S limit, based on 40 CFR 60, Subpart Ja limitations.

The emission factor for NO_x is based upon the manufacturer's guarantee.

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.

Limits and Standards:
45 CSR 2
Limitations – Sections 4.1.1, 4.1.2, 4.1.3, 4.1.6, 4.1.7, 4.1.8, and 4.1.12 – R13-2334V
45 CSR 10
Limitations – Sections 4.1.9, 4.1.10, and 4.1.11 – R13-2334V
45 CSR 13
Limitations – Sections 4.1.5 – R13-2334V
45 CSR 16
Limitations – Sections 4.1.8, 4.1.26 – R13-2334V
NSPS Subpart A
Limitations – Section 4.1.8 – R13-2334V
NSPS Subpart Ja
Limitations – Sections 4.1.15, 4.1.17, 4.1.17i, 4.1.18, 4.1.19, 4.1.25, and 4.1.26 – R13-2334V

_X_ 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.)

Monitoring:
Visual emission checks of each emission point subject to an opacity limit shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using 40 CFR 60 Appendix A, Method 22. If natural gas is being combusted, the visual emissions checks shall be conducted monthly. If fuel oil is being combusted, the visual emissions checks shall be conducted weekly. If visible emissions are identified during the survey, or at any other time, EWVI shall take corrective action to minimize the emissions immediately. If during these checks, or at any other time, visible emissions are observed, a visible emission evaluation shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, the name of the observer, and any data required by 40 CFR 60 Appendix A, Method 22 or Method 9.
[45 CSR 13 - Permit R13-2334 - 4.2.1]

To demonstrate compliance with the emissions limitations requirements of 40 CFR 60.102a and permit condition 4.1.17, the permittee shall continuously monitor the concentration of H2S in refinery fuel gas consumed by the heaters and meet the monitoring of emissions and operations for fuel gas combustion devices and flares requirements of 40 CFR 60.107a.

[40 CFR 60.107a - Permit R13-2334 - 4.2.7]

Testing:
N/A

Recordkeeping:
Record of Monitoring. The permittee shall keep records of monitoring information that include the following:
a. The date, place as defined in this permit and time of sampling or measurements;

b. The date(s) analyses were performed;
c. The company or entity that performed the analyses;
d. The analytical techniques or methods used;
e. The results of the analyses; and
f. The operating conditions existing at the time of sampling or measurement

[R13-2334V Section 4.4.1]

Record of Maintenance of Air Pollution Control Equipment. For all pollution control equipment listed in Section 1.0, the permittee shall maintain accurate records of all required pollution control equipment inspection an/or preventative maintenance procedures.

[R13-2334V Section 4.4.2]

Record of Malfunctions of Air Pollution Control Equipment. For all air pollution control equipment listed in Section 1.0, the permittee shall maintain records of the occurrence and duration of any malfunction or operational shutdown of the air pollution control equipment during which excess emissions occur. For each such case, the following information shall be recorded:

a. The equipment involved.
b. Steps taken to minimize emissions during the event.
c. The duration of the event.
d. The estimated increase in emissions during the event.
   For each such case associated with an equipment malfunction, the additional information shall also be recorded:
e. The cause of the malfunction.
f. Steps taken to correct the malfunction.
g. Any changes or modifications to equipment or procedures that would help prevent future recurrences of the malfunction.

[R13-2334V Section 4.4.3]

To determine compliance with restrictions set forth in Section 4.1.4, the permittee shall document the frequency, length of time, amount of fuel oil consumed, and estimate of emissions during DOT maintenance and periods of natural gas curtailment in which fuel oil was combusted. To determine compliance with fuel oil sulfur content limits set forth in Section 4.1.4, the permittee shall keep records of the sulfur content of all fuel oil received for the purpose of combustion. Each batch of fuel oil shall have its sulfur content determined by test method ASTM D4294. This information along with appropriate emission factors from *EPA's AP-42 Fifth Edition, Volume I, Supplement E, Chapter 1.3* may be used to estimate emissions.

[R13-2334V Section 4.4.4]

EWVI shall maintain a periodic exception report for each unit. Such reports shall include, but may not be limited to the date and time of start-ups and shutdowns. All such requirements, including notification by telephone, telefax, or other such method determined by the Director, shall be deemed to be satisfied when the reports are maintained on site for a period of no less than five (5) years and shall be made available upon request to the Director or his/her duly authorized representative.

[45 CSR 2-8.3.b. – Permit R13-2334 – 4.4.5]

EWVI shall maintain records of the operating schedule and the quantity of fuel consumed in each fuel burning unit monthly, at a minimum, but may record it more often at their discretion.

[45 CSR 2-8.3.c. – Permit R13-2334 – 4.4.6]

EWVI shall maintain an on-site record of all required monitoring data as established in a monitoring plan pursuant to 45CSR 10-8.2.c. Such records shall be made available to the Director upon request. Records shall be retained onsite for a minimum of five years.

[45 CSR 10-8.3.a – Permit R13-2334 – 4.4.7]

EWVI shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each unit in a manner specified by the Director. Such records shall be maintained on-site and made available to the Director upon request.

[45 CSR 10-8.3.c - Permit R13-2334 – 4.4.8]

To determine compliance with the emission limits set forth for H-101R, H-102R, and H-501R set forth in Section 4.1.16, the permittee shall keep monthly records of the amount of fuel gas (refinery plus natural gas) consumed within both heaters for H-101R and H-102R and individually for H-501R. This information along with appropriate emission factors from *EPA's AP-42 Fifth Edition, Volume I, Supplement D, Chapter 1.4*. may be used to estimate monthly emissions of all pollutants except NO_x and SO_2 emission factors shall be based on the 1995 SO_2 SIP and heating value (HHV) of 1019 Btu/scf, which sets a limit of 0.13260 lb/MMBtu. Compliance with the yearly limit shall be based on a 12-month rolling total. Compliance with the SO2 limit shall demonstrate compliance with the less stringent requirement of CO-SIP-95-1 – Condition IV.4. (SIPed) and 45 CSR 10-3.1.e
[R13-2334V Section 4.4.11]

Each owner or operator subject to the emissions limitations in 60.102a shall comply with the notification, recordkeeping, and reporting requirements in 60.7 and other requirements as specified in this section.
[40 CFR 60.108a - R13-2334V Section 4.4.3]

Reporting:
EWVI shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in 45CSR§§2-3 and 4) as provided in one of the following subdivisions:
a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:
1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and
2. Excess opacity does not exceed 40%.
b. EWVI shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in 45CSR§2-9.3.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. EWVI shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:
1. A detailed explanation of the factors involved or causes of the malfunction;
2. The date and time of duration (with starting and ending times) of the period of excess emissions;
3. An estimate of the mass of excess emissions discharged during the malfunction period;
4. The maximum opacity measured or observed during the malfunction;
5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.
[45 CSR 2-9.3 – Permit R13-2334 – 4.5.1]

EWVI shall submit a periodic exception report to the Director, in a manner specified by the Director. Such an exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan and shall include the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion, and the corrective action taken.
[45 CSR 10-8.3 – Permit R13-2334 – 4.5.2]

Each owner or operator subject to the emissions limitations in 60.102a shall comply with the nitification, recordkeeping, and reporting requirements in 60.7 and other requirements as specified in this section.
[40 CFR 60.108a – Permit R13-2334 – 4.5.5]

Are you in compliance with all applicable requirements for this emission unit? __X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
005-01	H-600S	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
H600 Series Heaters, ISOMAX Unit; refinery fuel gas/natural gas blend

Manufacturer:	**Model number:**	**Serial number:**
Econotherm	Not Available	H-601 – J70-827, H-602 – J70-828, H-603 – J70-829, H-604 – J70-830
Construction date:	**Installation date:**	**Modification date(s):**
03/01/1972	04/01/1972	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
41.6 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
40,784 cf/hr	357.25 MMcf/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X__Yes ___ No	**If yes, is it?** ___ Indirect Fired _X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 41.6 MMBtu/hr	**Type and Btu/hr rating of burners:** Traditional NOx Burner 41.6 MMBtu/hr

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.
Refinery Fuel Gas/Natural Gas Blend
Max Hourly Usage = 40,784 cf/hr
Max Annual Usage = 357 MMcf/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Refinery Fuel Gas/ Natural Gas Blend	0.016%	N/A	1,020 Btu/cf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	3.43	15.00
Nitrogen Oxides (NO_X)	3.99	21.44
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.31	1.36
Particulate Matter (PM_{10})	0.31	1.36
Total Particulate Matter (TSP)	0.31	1.36
Sulfur Dioxide (SO_2)	1.10	4.83
Volatile Organic Compounds (VOC)	0.22	0.98
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.).

The emission factors for PM, CO, and VOC were obtained from U.S. EPA Document AP-42, "Compilation of Air Pollutant Emission Factors, Volume I: Stationary and Area Sources," Office of Air Quality Planning and Standards, Research Triangle Park, NC.

The emission factor for SO_2 is based on 160 ppm H_2S limit, based on 40 CFR 60, Subpart J limitations.

The emission factor for NOx is based on performance testing.

*For the purposes of Title V Permitting, it is assumed that $PM_{2.5}$=PM_{10}=TSP.

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.

Applicable Requirement - 45 CSR 2
Limitations – Sections 4.1.1, 4.1.3, 4.1.4, 4.1.7, 4.1.8, 4.1.9 - R13-2334M
Applicable Requirement - 45 CSR 10
Limitations – Sections 4.1.10, 4.1.11, 4.1.12, 4.1.13 - R13-2334M
Applicable Requirement - 45 CSR 13
Limitations – Sections 4.1.6, 4.1.25 - R13-2334M
Applicable Requirement – CO-SIP-95
Limitations – N/A

__X__ 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.)

45 CSR 2
Monitoring:
Visual emission checks of each emission point subject to an opacity limit shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using 40 CFR 60 Appendix A, Method 22. If natural gas is being combusted, the visual emissions checks shall be conducted monthly. If fuel oil is being combusted, the visual emissions checks shall be conducted weekly. If visible emissions are identified during the survey, or at any other time, EWVI shall take corrective action to minimize the emissions immediately. If during these checks, or at any other time, visible emissions are observed, a visible emission evaluation shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, the name of the observer, and any data required by 40 CFR 60 Appendix A, Method 22 or Method 9.
[45 CSR 13 - Permit R13-2334 - 4.2.1]

Testing:
N/A

Recordkeeping:
EWVI shall maintain a periodic exception report for each unit. Such reports shall include, but may not be limited to the date and time of start-ups and shutdowns. All such requirements, including notification by telephone, telefax, or other such method determined by the Director, shall be deemed to be satisfied when the reports are maintained on site for a period of no less than five (5) years and shall be made available upon request to the Director or his/her duly authorized representative.
[45 CSR 2-8.3.b.; 45 CSR 13 - Permit R13-2334 - 4.4.2]

EWVI shall maintain records of the operating schedule and the quantity of fuel consumed in each fuel burning unit monthly, at a minimum, but may record it more often at their discretion.
[45 CSR 2-8.3.c; 45 CSR 13 – Permit R13-2334 – 4.4.3]

Reporting:
EWVI shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in 45CSR§§2-3

and 4) as provided in one of the following subdivisions:

a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:
   1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and
   2. Excess opacity does not exceed 40%.
b. EWVI shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in 45CSR§2-9.3.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. EWVI shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:
   1. A detailed explanation of the factors involved or causes of the malfunction;
   2. The date and time of duration (with starting and ending times) of the period of excess emissions;
   3. An estimate of the mass of excess emissions discharged during the malfunction period;
   4. The maximum opacity measured or observed during the malfunction;
   5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
   6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45 CSR 2-9.3; 45 CSR 13 – Permit R13-2334 – 4.5.1]

The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment efficiency shall be reviewed by the Director. No person shall cause, suffer, allow or permit the addition of sulfur oxides as described above unless written approval for such addition is provided by the Director.
[45 CSR 2-4.4; 45CSR13 - Permit R13-2334 - 4.1.2]

45 CSR 10
Monitoring:
Compliance with the hydrogen sulfide concentration limit of 230 mg/dscm (0.10 gr/dscf) shall be demonstrated using a continuous emission monitoring system which shall comply with the following provisions of 40 CFR Part 60: Part 60.13(a), (c), (d)(1), (e)(2), (f), (g), (h), (i), (j), Part 60.105(a)(4), Part 60.106(e) part 60, Appendix A, Method 11, Part 60; Appendix B, Performance Specification 7.
[45 CSR 13 – Permit R13-2334 – 4.2.2]

EWVI shall demonstrate compliance with sections 3, 4 and 5 of 45CSR10 by testing and /or monitoring in accordance with one or more of the following: 40 CFR Part 60, Appendix A, Method 6, Method 15, continuous emissions monitoring systems (CEMS) or fuel sampling and analysis as set forth in an approved monitoring plan for each emission unit.
[45 CSR 10-8.2.c; 45CSR13 - Permit R13-2334 - 4.1.14]

Testing:
N/A

Recordkeeping:
EWVI shall maintain an on-site record of all required monitoring data as established in a monitoring plan pursuant to 45CSR 10-8.2.c. Such records shall be made available to the Director upon request. Records shall be retained on-site for a minimum of five years.
[45 CSR 10-8.3.a; 45 CSR 13 – Permit R13-2334 – 4.4.4]

EWVI shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each unit in a manner specified by the Director. Such records shall be maintained on-site and made available to the Director upon request.
[45 CSR 10-8.3.c; 45 CSR 13 - Permit R13-2334 – 4.4.5]

Reporting:
EWVI shall submit a periodic exception report to the Director, in a manner specified by the Director. Such an exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan and shall include the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion, and the corrective action taken.
[45 CSR 10-8.3.b; 45 CSR 13 – Permit R13-2334 – 4.5.2]

Due to unavoidable malfunction of equipment or inadvertent fuel shortages, emissions exceeding those provided for

in 45CSR10 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction or fuel shortage. In cases of major equipment failure or extended shortages of conforming fuels, additional time periods may be granted by the Director provided a corrective program has been submitted by EWVI and approved by the Director.
[45 CSR 10-9.1 and 45 CSR 13 - Permit R13-2334 - 4.1.5]

45 CSR 13
Monitoring:
N/A

Testing:
EWVI shall conduct a performance test to determine NOx emissions rate limits. Such performance test shall be conducted in accordance with an approved EPA method and shall be performed during the operating condition of combusting the maximum amount of refinery fuel gas within the natural gas/refinery fuel gas mixture feasible at the time of the test (with the understanding that the maximum percentage of refinery fuel gas within the mixture could be as high as 100%). At least 30 days prior to testing, EWVI shall submit a test protocol subject to approval by the Director.
[45 CSR 13 – Permit R13-2334 – 4.3.3]

Recordkeeping:
EWVI shall document the frequency, length of time, amount of fuel oil consumed, and estimate of emissions during DOT maintenance and periods of natural gas curtailment in which fuel oil was combusted. EWVI shall keep records of the sulfur content of all fuel oil received for the purpose of combustion. Each batch of fuel oil shall have its sulfur content determined by test method, ASTM D4294. This information, along with appropriate emission factors from *EPA's AP-42 Fifth Edition, Volume I, Supplement E, Chapter 1.3*, may be used to estimate emissions.
[45 CSR 13 – R13-2334 – 4.4.1]

To determine compliance with the emissions limits, EWVI shall keep monthly records of the amount of fuel gas (refinery plus natural gas) consumed within the heater. This information, along with appropriate emission factors from *EPA's Supplement D, Chapter 1.4*, may be used to estimate monthly emissions of all pollutants except SO_2. Compliance with the yearly limit shall be based on a 12-month rolling total.
[45 CSR 13 – Permit R13-2334 – 4.4.10 (H-201, H-500S and H-600S)]

Reporting:
N/A

CO-SIP-95
Monitoring:
Compliance with the emission limitations of CO-SIP-95-1 shall be based upon the averaging time and compliance determination methods below:

EWVI shall have installed and shall calibrate, maintain, and operate a continuous emission monitoring system as herein provided to measure the concentration of hydrogen sulfide in all refinery fuel gas streams. Installation, calibration, maintenance, and operation of such continuous emission monitoring system shall comply with the following provisions of 40 CFR Part 60: Part 60.13(a), (c), (d)(1), (e)(2), (f), (g), (h), (i), (j), Part 60.105(a)(4), Part 60.106(e) part 60, Appendix A, Method 11, Part 60; Appendix B, Performance Specification 7. The Director may approve the installation of sulfur dioxide and oxygen monitoring systems to monitor sulfur dioxide emissions in the exhaust gases from combustion units firing refinery fuel gas in lieu of a hydrogen sulfide monitoring system for the fuel gas streams. Such SO_2 and oxygen monitoring systems shall be subject to the performance specifications, quality assurance procedures, and other related requirements under 40 CFR Part 60.
[CO-SIP-95-1 – Condition V.6 (SIPed)]

Testing:
During any period of failure or malfunction of the hydrogen sulfide continuous emission monitoring system, H_2S concentrations of the refinery fuel gas shall be determined by collection of not less than two (2) gas samples per eight (8) hour period which are analyzed by gas chromatography for hydrogen sulfide content, density and heating value in accordance with ASTM Method D-1945. EWVI may request approval by the Director of alternative sampling and analytical methods for determination of these parameters during periods when the H_2S monitoring system has failed or malfunctioned.

[CO-SIP-95-1 – Condition V.11 (SIPed)]

Recordkeeping:
EWVI shall maintain records of the occurrence and duration of any start-up, shut-down, or malfunction in the operation of sources subject to CO-SIP-95-1, any malfunction of air pollution control equipment or any periods during which a continuous monitoring system or device is inoperative.
[CO-SIP-95-1 – Condition VI.4 (SIPed)]

EWVI shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by CO-SIP-95-1 or otherwise by the Director.
[CO-SIP-95-1 – Condition VI.5 (SIPed)]

Reporting:
EWVI shall submit an excess emissions and monitoring systems performance report to the Director for all sources for which EWVI is required to maintain and operate a continuous monitoring system or monitoring device for sulfur dioxide or hydrogen sulfide on a calendar monthly basis. All such reports shall be submitted by the 30th day following the end of each calendar month and shall contain the results of all determinations showing excess emissions regardless of whether the determinations are made by continuous monitoring data or by other methods established by CO-SIP-95-1. Written reports of excess emissions shall include the following information:

A. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, the date and time at which the excess emissions started and ended for each occurrence of excess emissions and the process operating time during the reporting period.
B. Specific identification of each period of excess emissions that occurred during start-ups, shut-downs, and malfunctions of the affected facility. Each malfunction report filed with the Director shall be referenced by report number with the date of occurrence and date of report submission noted.
C. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
D. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

If the total duration of excess emissions during the reporting period is less than one percent (1%) of the total operating time for the reporting period, and downtime for the continuous monitoring system for the reporting period is less than five percent (5%) of the total operating time for the reporting period, only the summary report form listed as Figure 1 in 40 CFR Part 60.7(d) shall be submitted, and the excess emission report described above need not be submitted unless requested by the Director. If the total duration of excess emissions for the reporting period is one percent (1%) or greater of the total operating time for the reporting period, or the total continuous system downtime for the reporting period is five percent (5%) or greater of the total operating time for the reporting period, the summary report form and the excess emission report described above shall both be submitted to the Director.
[CO-SIP-95-1 – Condition VI.3 (SIPed)]

EWVI shall report to the Director, by telephone or telefax, any malfunction of such source or its air pollution control equipment which results in any excess sulfur dioxide emission rate or concentration within twenty-four (24) hours of becoming aware of such condition. EWVI shall file a written report concerning the malfunction with the Director within ten (10) days, providing the following information:

A. A detailed explanation of the factors involved or causes of the malfunction.
B. The date and time of duration (with starting and ending times) of the period of excess emissions.
C. An estimate of the mass of excess emissions discharged during the malfunction period.
D. The maximum emission rate or concentration measured or otherwise determined during the malfunction in units of the applicable emissions standard.
E. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction.
F. A detailed explanation of the corrective measure or program that shall be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[CO-SIP-95-1 – Condition VI.7 (SIPed)]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No
If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
005-02	H-441	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Hydrogen Plant Heater; natural gas

Manufacturer:	**Model number:**	**Serial number:**
Not Available	Not Available	Not Available
Construction date:	**Installation date:**	**Modification date(s):**
03/01/1972	04/01/1972	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
12.3 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
12,059 cf/hr	105.63 MMcf/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X__Yes ___ No	**If yes, is it?** ___ Indirect Fired _X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 12.3 MMBtu/hr	**Type and Btu/hr rating of burners:** Traditional NOx Burner 12.3 MMBtu/hr

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.
Natural Gas
Max Hourly Usage = 12,059 cf/hr
Max Annual Usage = 105.63 MMcf/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	20 gr/100 cf	N/A	1,020 Btu/cf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	1.01	4.44
Nitrogen Oxides (NO_X)	1.21	5.28
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.09	0.40
Particulate Matter (PM_{10})	0.09	0.40
Total Particulate Matter (TSP)	0.09	0.40
Sulfur Dioxide (SO_2)	0.01	0.03
Volatile Organic Compounds (VOC)	0.07	0.29
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.).

The emission factors for PM, CO, VOC, and NOx were obtained from U.S. EPA Document AP-42, "Compilation of Air Pollutant Emission Factors, Volume I: Stationary and Area Sources," Office of Air Quality Planning and Standards, Research Triangle Park, NC.

H-441 is fired on natural gas only; therefore the SO_2 emission factor from AP-24 Table 1.4-2 (0.00059 lb/MMBtu) is used.

*For the purposes of Title V Permitting, it is assumed that $PM_{2.5}$=PM_{10}=TSP.

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.

Applicable Requirement - 45 CSR 2
Limitations – Sections 4.1.1, 4.1.3, 4.1.4, 4.1.7, 4.1.8, 4.1.9 - R13-2334M
Applicable Requirement - 45 CSR 10
Limitations – Sections 4.1.10, 4.1.11 - R13-2334M
Applicable Requirement - 45 CSR 13
Limitations – Sections 4.1.6, 4.1.22 - R13-2334M
Applicable Requirement – CO-SIP-95
Limitations – Sections 4.1.23 – R13-2334M

__X__ 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.)

45 CSR 2
Monitoring:
Visual emission checks of each emission point subject to an opacity limit shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using 40 CFR 60 Appendix A, Method 22. If natural gas is being combusted, the visual emissions checks shall be conducted monthly. If fuel oil is being combusted, the visual emissions checks shall be conducted weekly. If visible emissions are identified during the survey, or at any other time, EWVI shall take corrective action to minimize the emissions immediately. If during these checks, or at any other time, visible emissions are observed, a visible emission evaluation shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, the name of the observer, and any data required by 40 CFR 60 Appendix A, Method 22 or Method 9.
[45 CSR 13 - Permit R13-2334 - 4.2.1]

Testing:
N/A

Recordkeeping:
EWVI shall maintain a periodic exception report for each unit. Such reports shall include, but may not be limited to the date and time of start-ups and shutdowns. All such requirements, including notification by telephone, telefax, or other such method determined by the Director, shall be deemed to be satisfied when the reports are maintained on site for a period of no less than five (5) years and shall be made available upon request to the Director or his/her duly authorized representative.
[45 CSR 2-8.3.b.; 45 CSR 13 - Permit R13-2334 - 4.4.2]

EWVI shall maintain records of the operating schedule and the quantity of fuel consumed in each fuel burning unit monthly, at a minimum, but may record it more often at their discretion.
[45 CSR 2-8.3.c; 45 CSR 13 – Permit R13-2334 – 4.4.3]

Reporting:
EWVI shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in 45CSR§§2-3

and 4) as provided in one of the following subdivisions:

a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:
   1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and
   2. Excess opacity does not exceed 40%.
b. EWVI shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in 45CSR§2-9.3.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. EWVI shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:
   1. A detailed explanation of the factors involved or causes of the malfunction;
   2. The date and time of duration (with starting and ending times) of the period of excess emissions;
   3. An estimate of the mass of excess emissions discharged during the malfunction period;
   4. The maximum opacity measured or observed during the malfunction;
   5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
   6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45 CSR 2-9.3; 45 CSR 13 – Permit R13-2334 – 4.5.1]

The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment efficiency shall be reviewed by the Director. No person shall cause, suffer, allow or permit the addition of sulfur oxides as described above unless written approval for such addition is provided by the Director.
[45 CSR 2-4.4; 45CSR13 - Permit R13-2334 - 4.1.2]

45 CSR 10
Monitoring:
N/A

Testing:
N/A

Recordkeeping:
N/A

Reporting:
Due to unavoidable malfunction of equipment or inadvertent fuel shortages, emissions exceeding those provided for in 45CSR10 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction or fuel shortage. In cases of major equipment failure or extended shortages of conforming fuels, additional time periods may be granted by the Director provided a corrective program has been submitted by EWVI and approved by the Director.
[45 CSR 10-9.1 and 45 CSR 13 - Permit R13-2334 - 4.1.5]

45 CSR 13
Monitoring:
N/A

Testing:
N/A

Recordkeeping:
EWVI shall document the frequency, length of time, amount of fuel oil consumed, and estimate of emissions during DOT maintenance and periods of natural gas curtailment in which fuel oil was combusted. EWVI shall keep records of the sulfur content of all fuel oil received for the purpose of combustion. Each batch of fuel oil shall have its sulfur content determined by test method, ASTM D4294. This information, along with appropriate emission factors from *EPA's AP-42 Fifth Edition, Volume I, Supplement E, Chapter 1.3*, may be used to estimate emissions.
[45 CSR 13 – R13-2334 – 4.4.1]

To determine compliance with the emission limits, EWVI shall keep monthly records of the amount of natural gas consumed in the heater. This information along with appropriate emission factors from *EPA's AP-42 Fifth Edition,*

Volume I, Supplement D, Chapter 1.4 may be used to estimate monthly emissions.
[45 CSR 13 – Permit R13-2334 – 4.4.9 (H-701 and H-441)]

CO-SIP-95
Monitoring:
Compliance with the emission limitations of CO-SIP-95-1 shall be based upon the averaging time and compliance determination methods below:

Any source for which compliance with sulfur dioxide emissions limitations are not demonstrated using continuous emission monitoring systems, must demonstrate compliance not less frequently than semi-annually with the limit of 50 grains per 100 dry standard cubic feet of gas, using reference emissions test procedures in 40 CFR Part 60, Appendix A, Methods 6, 6A, 6B, and 19. At least three test runs, each with sufficient samples to characterize a two-hour period representative of normal source operation, shall be required for each compliance demonstration using 40 CFR Part 60, Appendix A, Methods 6, 6A, 6B, and 19. The semi-annual tests shall be scheduled as ordered by or in consultation with the Director.
[CO-SIP-95-1 – Condition V.1 (SIPed)]

Testing:
N/A

Recordkeeping:
EWVI shall maintain records of the occurrence and duration of any start-up, shut-down, or malfunction in the operation of sources subject to CO-SIP-95-1, any malfunction of air pollution control equipment or any periods during which a continuous monitoring system or device is inoperative.
[CO-SIP-95-1 – Condition VI.4 (SIPed)]

EWVI shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by CO-SIP-95-1 or otherwise by the Director.
[CO-SIP-95-1 – Condition VI.5 (SIPed)]

Reporting:
EWVI shall submit an excess emissions and monitoring systems performance report to the Director for all sources for which EWVI is required to maintain and operate a continuous monitoring system or monitoring device for sulfur dioxide or hydrogen sulfide on a calendar monthly basis. All such reports shall be submitted by the 30th day following the end of each calendar month and shall contain the results of all determinations showing excess emissions regardless of whether the determinations are made by continuous monitoring data or by other methods established by CO-SIP-95-1. Written reports of excess emissions shall include the following information:

A. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, the date and time at which the excess emissions started and ended for each occurrence of excess emissions and the process operating time during the reporting period.
B. Specific identification of each period of excess emissions that occurred during start-ups, shut-downs, and malfunctions of the affected facility. Each malfunction report filed with the Director shall be referenced by report number with the date of occurrence and date of report submission noted.
C. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
D. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

If the total duration of excess emissions during the reporting period is less than one percent (1%) of the total operating time for the reporting period, and downtime for the continuous monitoring system for the reporting period is less than five percent (5%) of the total operating time for the reporting period, only the summary report form listed as Figure 1 in 40 CFR Part 60.7(d) shall be submitted, and the excess emission report described above need not be submitted unless requested by the Director. If the total duration of excess emissions for the reporting period is one percent (1%) or greater of the total operating time for the reporting period, or the total continuous system downtime for the reporting period is five percent (5%) or greater of the total operating time for the reporting period, the summary report form and the excess emission report described above shall both be submitted to the Director.
[CO-SIP-95-1 – Condition VI.3 (SIPed)]

EWVI shall report to the Director, by telephone or telefax, any malfunction of such source or its air pollution control

equipment which results in any excess sulfur dioxide emission rate or concentration within twenty-four (24) hours of becoming aware of such condition. EWVI shall file a written report concerning the malfunction with the Director within ten (10) days, providing the following information:

A. A detailed explanation of the factors involved or causes of the malfunction.
B. The date and time of duration (with starting and ending times) of the period of excess emissions.
C. An estimate of the mass of excess emissions discharged during the malfunction period.
D. The maximum emission rate or concentration measured or otherwise determined during the malfunction in units of the applicable emissions standard.
E. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction.
F. A detailed explanation of the corrective measure or program that shall be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[CO-SIP-95-1 – Condition VI.7 (SIPed)]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
006-01	H-701	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
VFU Heater; natural gas

Manufacturer:	**Model number:**	**Serial number:**
John Zink	CoolStar 211-PC	JZS019026480
Construction date:	**Installation date:**	**Modification date(s):**
10/01/1982	06/01/1983	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
12.1 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
11,863 cf/hr	103.91 MMcf/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X__Yes ___ No	**If yes, is it?** ___ Indirect Fired _X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 12.1 MMBtu/hr	**Type and Btu/hr rating of burners:** Traditional NOx Burner 12.1 MMBtu/hr

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.
Natural Gas
Max Hourly Usage = 11,863 cf/hr
Max Annual Usage = 103.91 MMcf/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	20 gr/100 cf	N/A	1,020 Btu/cf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	1.00	4.36
Nitrogen Oxides (NO_X)	0.24	1.06
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.09	0.39
Particulate Matter (PM_{10})	0.09	0.39
Total Particulate Matter (TSP)	0.09	0.39
Sulfur Dioxide (SO_2)	0.01	0.03
Volatile Organic Compounds (VOC)	0.07	0.29
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.).

The emission factors for PM, CO, VOC, and NOx were obtained from U.S. EPA Document AP-42, "Compilation of Air Pollutant Emission Factors, Volume I: Stationary and Area Sources," Office of Air Quality Planning and Standards, Research Triangle Park, NC.

H-701 is fire on natural gas only; therefore the SO_2 emission factor from AP-24 Table 1.4-2 (0.00059 lb/MMBtu) is used.

Low NOx emission factor is based on the burner spec (0.02 lb/MMBtu).

*For the purposes of Title V Permitting, it is assumed that $PM_{2.5}$=PM_{10}=TSP.

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.

Applicable Requirement - 45 CSR 2
Limitations – Sections 4.1.1, 4.1.3, 4.1.4, 4.1.7, 4.1.8, 4.1.9 - R13-2334M
Applicable Requirement - 45 CSR 10
Limitations – Sections 4.1.10, 4.1.11 - R13-2334M
Applicable Requirement - 45 CSR 13
Limitations – Sections 4.1.6, 4.1.22 - R13-2334M
Applicable Requirement – CO-SIP-95
Limitations – Sections 4.1.23, 4.1.24, 4.1.26 – R13-2334M

__X__ 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.)

45 CSR 2
Monitoring:
Visual emission checks of each emission point subject to an opacity limit shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using 40 CFR 60 Appendix A, Method 22. If natural gas is being combusted, the visual emissions checks shall be conducted monthly. If fuel oil is being combusted, the visual emissions checks shall be conducted weekly. If visible emissions are identified during the survey, or at any other time, EWVI shall take corrective action to minimize the emissions immediately. If during these checks, or at any other time, visible emissions are observed, a visible emission evaluation shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, the name of the observer, and any data required by 40 CFR 60 Appendix A, Method 22 or Method 9.
[45 CSR 13 - Permit R13-2334 - 4.2.1]

Testing:
N/A

Recordkeeping:
EWVI shall maintain a periodic exception report for each unit. Such reports shall include, but may not be limited to the date and time of start-ups and shutdowns. All such requirements, including notification by telephone, telefax, or other such method determined by the Director, shall be deemed to be satisfied when the reports are maintained on site for a period of no less than five (5) years and shall be made available upon request to the Director or his/her duly authorized representative.
[45 CSR 2-8.3.b.; 45 CSR 13 - Permit R13-2334 - 4.4.2]

EWVI shall maintain records of the operating schedule and the quantity of fuel consumed in each fuel burning unit monthly, at a minimum, but may record it more often at their discretion.
[45 CSR 2-8.3.c; 45 CSR 13 – Permit R13-2334 – 4.4.3]

Reporting:
EWVI shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in 45CSR§§2-3

and 4) as provided in one of the following subdivisions:

a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:
   1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and
   2. Excess opacity does not exceed 40%.
b. EWVI shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in 45CSR§2-9.3.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. EWVI shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:
   1. A detailed explanation of the factors involved or causes of the malfunction;
   2. The date and time of duration (with starting and ending times) of the period of excess emissions;
   3. An estimate of the mass of excess emissions discharged during the malfunction period;
   4. The maximum opacity measured or observed during the malfunction;
   5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
   6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45 CSR 2-9.3; 45 CSR 13 – Permit R13-2334 – 4.5.1]

The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment efficiency shall be reviewed by the Director. No person shall cause, suffer, allow or permit the addition of sulfur oxides as described above unless written approval for such addition is provided by the Director.
[45 CSR 2-4.4; 45CSR13 - Permit R13-2334 - 4.1.2]

45 CSR 10
Monitoring:
N/A

Testing:
N/A

Recordkeeping:
N/A

Reporting:
Due to unavoidable malfunction of equipment or inadvertent fuel shortages, emissions exceeding those provided for in 45CSR10 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction or fuel shortage. In cases of major equipment failure or extended shortages of conforming fuels, additional time periods may be granted by the Director provided a corrective program has been submitted by EWVI and approved by the Director.
[45 CSR 10-9.1 and 45 CSR 13 - Permit R13-2334 - 4.1.5]

45 CSR 13
Monitoring:
N/A

Testing:
N/A

Recordkeeping:
EWVI shall document the frequency, length of time, amount of fuel oil consumed, and estimate of emissions during DOT maintenance and periods of natural gas curtailment in which fuel oil was combusted. EWVI shall keep records of the sulfur content of all fuel oil received for the purpose of combustion. Each batch of fuel oil shall have its sulfur content determined by test method, ASTM D4294. This information, along with appropriate emission factors from *EPA's AP-42 Fifth Edition, Volume I, Supplement E, Chapter 1.3*, may be used to estimate emissions.
[45 CSR 13 – R13-2334 – 4.4.1]

To determine compliance with the emission limits, EWVI shall keep monthly records of the amount of natural gas consumed in the two heaters. This information, along with appropriate emission factors from *EPA's AP-42 Fifth*

Edition, Volume I, Supplement D, Chapter 1.4 may be used to estimate monthly emissions.
[45 CSR 13 – Permit R13-2334 – 4.4.9 (H-701 and H-441)]

Reporting:
N/A

CO-SIP-95
Monitoring:
Compliance with the emission limitations of CO-SIP-95-1 shall be based upon the averaging time and compliance determination methods below:

Any source for which compliance with sulfur dioxide emissions limitations are not demonstrated using continuous emission monitoring systems, must demonstrate compliance not less frequently than semi-annually with the limit of 50 grains per 100 dry standard cubic feet of gas, using reference emissions test procedures in 40 CFR Part 60, Appendix A, Methods 6, 6A, 6B, and 19. At least three test runs, each with sufficient samples to characterize a two-hour period representative of normal source operation, shall be required for each compliance demonstration using 40 CFR Part 60, Appendix A, Methods 6, 6A, 6B, and 19. The semi-annual tests shall be scheduled as ordered by or in consultation with the Director.
[CO-SIP-95-1 – Condition V.1 (SIPed)]

Upon entry of CO-SIP-95-1, compliance with the sulfur dioxide emission limitations shall be determined daily in accordance with the following provisions:

A. Total daily sulfur dioxide emissions for each heater shall be calculated by adding the sulfur dioxide emissions attributable to each fuel fired during all twenty-four (24) hour periods.
B. Sulfur dioxide emissions attributable to the combustion of fuel oil shall be determined by sampling and analyzing the volume of fuel oil fired for sulfur content and heating volume in accordance with applicable ASTM sampling and analytical methods and accurately measuring the volume and mass of fuel oil fired in each heater.
C. Sulfur dioxide emissions attributable to the combustion of fuel gas shall be determined using continuous hydrogen sulfide monitoring data collected in accordance with 40 CFR 60 in conjunction with daily determinations of fuel gas heating value and density and accurate daily measurements of the volume of fuel gas fired in each heater.
D. Fuel mass or volumetric flow metering equipment shall be installed and placed into continuous operations on or before June 1, 1995.

[CO-SIP-95-1 – Condition V.4 (SIPed)(During fuel oil combustion only)]

All continuous emission monitoring data required to be collected shall be quality assured in accordance with 40 CFR Part 60, Appendix F Quality Assurance Procedures.
[CO-SIP-95-1 – Condition V.7 (SIPed)]

Testing:
During any period of failure or malfunction of the hydrogen sulfide continuous emission monitoring system, H_2S concentrations of the refinery fuel gas shall be determined by collection of not less than two (2) gas samples per eight (8) hour period which are analyzed by gas chromatography for hydrogen sulfide content, density and heating value in accordance with ASTM Method D-1945. EWVI may request approval by the Director of alternative sampling and analytical methods for determination of these parameters during periods when the H_2S monitoring system has failed or malfunctioned.
[CO-SIP-95-1 – Condition V.11 (SIPed)]

Sources of sulfur dioxide emissions subject to CO-SIP-95-1 shall demonstrate compliance with the limit of 50 grains per 100 dry standard cubic feet of gas using data collected in accordance with this section and reference emissions test procedures in 40 CFR Part 60, Appendix A, Methods 6, 6A, 6B, and 19.
[CO-SIP-95-1 – Condition V.8 (SIPed)]

Any source for which compliance with sulfur dioxide emissions limitations are not demonstrated using continuous emission monitoring systems, must demonstrate compliance with the limit of 50 grains per 100 dry standard cubic feet of gas not less frequently than semi-annually. At least three test runs, each with sufficient samples to characterize a two-hour period representative of normal source operation, shall be required for each compliance demonstration using the reference test procedures specified in 40 CFR Part 60, Appendix A, Methods 6, 6A, 6B, and 19.

[CO-SIP-95-1 – Condition V.9 (SIPed)]

Recordkeeping:
EWVI shall maintain records of the occurrence and duration of any start-up, shut-down, or malfunction in the operation of sources subject to CO-SIP-95-1, any malfunction of air pollution control equipment or any periods during which a continuous monitoring system or device is inoperative.
[CO-SIP-95-1 – Condition VI.4 (SIPed)]

EWVI shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by CO-SIP-95-1 or otherwise by the Director.
[CO-SIP-95-1 – Condition VI.5 (SIPed)]

Reporting:
EWVI shall submit an excess emissions and monitoring systems performance report to the Director for all sources for which EWVI is required to maintain and operate a continuous monitoring system or monitoring device for sulfur dioxide or hydrogen sulfide on a calendar monthly basis. All such reports shall be submitted by the 30th day following the end of each calendar month and shall contain the results of all determinations showing excess emissions regardless of whether the determinations are made by continuous monitoring data or by other methods established by CO-SIP-95-1. Written reports of excess emissions shall include the following information:

A. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, the date and time at which the excess emissions started and ended for each occurrence of excess emissions and the process operating time during the reporting period.
B. Specific identification of each period of excess emissions that occurred during start-ups, shut-downs, and malfunctions of the affected facility. Each malfunction report filed with the Director shall be referenced by report number with the date of occurrence and date of report submission noted.
C. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
D. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

If the total duration of excess emissions during the reporting period is less than one percent (1%) of the total operating time for the reporting period, and downtime for the continuous monitoring system for the reporting period is less than five percent (5%) of the total operating time for the reporting period, only the summary report form listed as Figure 1 in 40 CFR Part 60.7(d) shall be submitted, and the excess emission report described above need not be submitted unless requested by the Director. If the total duration of excess emissions for the reporting period is one percent (1%) or greater of the total operating time for the reporting period, or the total continuous system downtime for the reporting period is five percent (5%) or greater of the total operating time for the reporting period, the summary report form and the excess emission report described above shall both be submitted to the Director.
[CO-SIP-95-1 – Condition VI.3 (SIPed)]

EWVI shall report to the Director, by telephone or telefax, any malfunction of such source or its air pollution control equipment which results in any excess sulfur dioxide emission rate or concentration within twenty-four (24) hours of becoming aware of such condition. EWVI shall file a written report concerning the malfunction with the Director within ten (10) days, providing the following information:

A. A detailed explanation of the factors involved or causes of the malfunction.
B. The date and time of duration (with starting and ending times) of the period of excess emissions.
C. An estimate of the mass of excess emissions discharged during the malfunction period.
D. The maximum emission rate or concentration measured or otherwise determined during the malfunction in units of the applicable emissions standard.
E. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction.
F. A detailed explanation of the corrective measure or program that shall be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[CO-SIP-95-1 – Condition VI.7 (SIPed)]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No
If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
007-01	Boiler A	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Boiler A; refinery fuel gas/natural gas blend

Manufacturer:	**Model number:**	**Serial number:**
Foster Wheeler Ltd	AG 5150	5214
Construction date:	**Installation date:**	**Modification date(s):**
03/01/1971	04/01/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
159.50 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
156,373 cf/hr	1,370 MMcf/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X__Yes ___ No	**If yes, is it?** ___ Indirect Fired _X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 159.5 MMBtu/hr	**Type and Btu/hr rating of burners:** Next Generation Ultra Low NOx Burner 159.5 MMBtu/hr

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.
Refinery Fuel Gas/Natural Gas Blend
Max Hourly Usage = 156,373 cf/hr
Max Annual Usage = 1,370 MMcf/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Refinery Fuel Gas/ Natural Gas Blend	0.016%	N/A	1,020 Btu/cf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	13.13	57.53
Nitrogen Oxides (NO_X)	9.25	40.52
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	1.19	5.21
Particulate Matter (PM_{10})	1.19	5.21
Total Particulate Matter (TSP)	1.19	5.21
Sulfur Dioxide (SO_2)	0.92	4.03
Volatile Organic Compounds (VOC)	0.86	3.77
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.).

The emission factors for PM, VOC, and CO were obtained from U.S. EPA Document AP-42, "Compilation of Air Pollutant Emission Factors, Volume I: Stationary and Area Sources," Office of Air Quality Planning and Standards, Research Triangle Park, NC.

The SO_2 emission factor is based on a blend of 20% Refinery Fuel Gas (RFG) and 80% Natural Gas (NG). For RFG, the emission rate is calculated as follows (using 160 vppm H_2S): Emission Factor (lb SO_2/MMBtu = (160 mol H_2S/10E6 mol RFG) x (1 mol SO_2/1 mol H_2S) x (64 lb SO_2/mol SO_2) x (mol RFG/379 SCF) x (SCF RFG/1,020 Btu) x (10E6 Btu/MMBtu) = 0.0265 lb SO_2/MMBtu. An emission factor of 0.00059 lb/MMBtu is used for natural gas.

The NOx emission factor of 0.058 lb/MMBtu is based on CEMS data. Boiler A was re-rated when the low NOx burner was added.

*For the purposes of Title V Permitting, it is assumed that $PM_{2.5}$=PM_{10}=TSP.

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.

Applicable Requirement - 45 CSR 2
Limitations – Sections 4.1.1, 4.1.3, 4.1.4, 4.1.7, 4.1.8, 4.1.9 - R13-2334M
Applicable Requirement - 45 CSR 10
Limitations – Sections 4.1.10, 4.1.11, 4.1.12, 4.1.13 - R13-2334M
Applicable Requirement - 45 CSR 13
Limitations – Sections 4.1.6, 4.1.16 - R13-2334M
Applicable Requirement – CO-SIP-95
Limitations – Sections 4.1.17, 4.1.18 – R13-2334M
Applicable Requirement – CO-SIP-95
Limitations – V.11.D – NOx emissions from Boiler A shall be limited to 0.058 lb/MMBtu on a 3-hour average as demonstrated by actual performance indicated by CEMS data.

__X__ 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.)

45 CSR 2
Monitoring:
Visual emission checks of each emission point subject to an opacity limit shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using 40 CFR 60 Appendix A, Method 22. If natural gas is being combusted, the visual emissions checks shall be conducted monthly. If fuel oil is being combusted, the visual emissions checks shall be conducted weekly. If visible emissions are identified during the survey, or at any other time, EWVI shall take corrective action to minimize the emissions immediately. If during these checks, or at any other time, visible emissions are observed, a visible emission evaluation shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, the name of the observer, and any data required by 40 CFR 60 Appendix A, Method 22 or Method 9.
[45 CSR 13 - Permit R13-2334 - 4.2.1]

EWVI shall monitor compliance with 45CSR§2-3 in an approved monitoring plan (see Appendix A) for each emission unit. Such plans shall include, but not be limited to, one or more of the following: continuous measurement of emissions, monitoring of emission control equipment, periodic parametric monitoring, or such other monitoring as approved by the Director.
[45 CSR 2-8.2.; 45CSR13 - Permit R13-2334 - 4.1.15]

Testing:
N/A

Recordkeeping:
EWVI shall maintain a periodic exception report for each unit. Such reports shall include, but may not be limited to the date and time of start-ups and shutdowns. All such requirements, including notification by telephone, telefax, or other such method determined by the Director, shall be deemed to be satisfied when the reports are maintained on site for a period of no less than five (5) years and shall be made available upon request to the Director or his/her duly authorized representative.
[45 CSR 2-8.3.b.; 45 CSR 13 - Permit R13-2334 - 4.4.2]

EWVI shall maintain records of the operating schedule and the quantity of fuel consumed in each fuel burning unit monthly, at a minimum, but may record it more often at their discretion.
[45 CSR 2-8.3.c; 45 CSR 13 – Permit R13-2334 – 4.4.3]
Reporting:
EWVI shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in 45CSR§§2-3 and 4) as provided in one of the following subdivisions:

a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:
    1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and
    2. Excess opacity does not exceed 40%.
b. EWVI shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in 45CSR§2-9.3.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. EWVI shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:
    1. A detailed explanation of the factors involved or causes of the malfunction;
    2. The date and time of duration (with starting and ending times) of the period of excess emissions;
    3. An estimate of the mass of excess emissions discharged during the malfunction period;
    4. The maximum opacity measured or observed during the malfunction;
    5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
    6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45 CSR 2-9.3; 45 CSR 13 – Permit R13-2334 – 4.5.1]

The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment efficiency shall be reviewed by the Director. No person shall cause, suffer, allow or permit the addition of sulfur oxides as described above unless written approval for such addition is provided by the Director.
[45 CSR 2-4.4; 45CSR13 - Permit R13-2334 - 4.1.2]

45 CSR 10
Monitoring:
Compliance with the hydrogen sulfide concentration limit of 230 mg/dscm (0.10 gr/dscf) shall be demonstrated using a continuous emission monitoring system which shall comply with the following provisions of 40 CFR Part 60: Part 60.13(a), (c), (d)(1), (e)(2), (f), (g), (h), (i), (j), Part 60.105(a)(4), Part 60.106(e) part 60, Appendix A, Method 11, Part 60; Appendix B, Performance Specification 7.
[45 CSR 13 – Permit R13-2334 – 4.2.2]

EWVI shall demonstrate compliance with sections 3, 4 and 5 of 45CSR10 by testing and /or monitoring in accordance with one or more of the following: 40 CFR Part 60, Appendix A, Method 6, Method 15, continuous emissions monitoring systems (CEMS) or fuel sampling and analysis as set forth in an approved monitoring plan for each emission unit.
[45 CSR 10-8.2.c; 45CSR13 - Permit R13-2334 - 4.1.14]

Testing:
N/A

Recordkeeping:
EWVI shall maintain an on-site record of all required monitoring data as established in a monitoring plan pursuant to 45CSR 10-8.2.c. Such records shall be made available to the Director upon request. Records shall be retained on-site for a minimum of five years.
[45 CSR 10-8.3.a; 45 CSR 13 – Permit R13-2334 – 4.4.4]

EWVI shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each unit in a manner specified by the Director. Such records shall be maintained on-site and made available to the Director upon request.
[45 CSR 10-8.3.c; 45 CSR 13 - Permit R13-2334 – 4.4.5]

Reporting:
EWVI shall submit a periodic exception report to the Director, in a manner specified by the Director. Such an

exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan and shall include the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion, and the corrective action taken.
[45 CSR 10-8.3.b; 45 CSR 13 – Permit R13-2334 – 4.5.2]

Due to unavoidable malfunction of equipment or inadvertent fuel shortages, emissions exceeding those provided for in 45CSR10 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction or fuel shortage. In cases of major equipment failure or extended shortages of conforming fuels, additional time periods may be granted by the Director provided a corrective program has been submitted by EWVI and approved by the Director.
[45 CSR 10-9.1 and 45 CSR 13 - Permit R13-2334 - 4.1.5]

45 CSR 13
Monitoring:
N/A

Testing:
At the request of the Director, EWVI shall conduct a performance test of Boilers A and B to determine NOx emissions rate limits. Such performance test shall be conducted in accordance with an approved EPA method and shall be performed during the operating condition of combusting the maximum amount of refinery fuel gas within the natural gas/refinery fuel gas mixture feasible at the time of the test (with the understanding the maximum percentage of refinery fuel gas within the mixture could be as high as 20%). At least 30 days prior to testing, EWVI shall submit a test protocol subject to approval by the Director.
[45 CSR 13 – Permit R13-2334 – 4.3.1 (Boilers A and B)]

Recordkeeping:
EWVI shall document the frequency, length of time, amount of fuel oil consumed, and estimate of emissions during DOT maintenance and periods of natural gas curtailment in which fuel oil was combusted. EWVI shall keep records of the sulfur content of all fuel oil received for the purpose of combustion. Each batch of fuel oil shall have its sulfur content determined by test method, ASTM D4294. This information, along with appropriate emission factors from *EPA's AP-42 Fifth Edition, Volume I, Supplement E, Chapter 1.3*, may be used to estimate emissions.
[45 CSR 13 – R13-2334 – 4.4.1]

To determine compliance with the emission limits set forth for Boiler A and Boiler B, EWVI shall keep monthly records of the amount of fuel gas (refinery plus natural gas) consumed within the two boilers, individually. This information, along with appropriate emission factors from EPA's Supplement D, Chapter 1.4, may be used to estimate monthly emissions of all pollutants except SO_2. Compliance with the yearly limit shall be based on a 12-month rolling total. Compliance with this limit shall demonstrate compliance with the less stringent requirement of CO-SIP-95-1 – Condition IV.3.A. (SIPed) and 45 CSR 10-3.1.e.
[45 CSR 13 – Permit R13-2334 – 4.4.6, CO-SIP-95-1 – Condition IV.3.A (SIPed) and 45 CSR 10-3.1.e]

Reporting:
N/A

CO-SIP-95
Monitoring:
Compliance with the emission limitations of CO-SIP-95-1 shall be based upon the averaging time and compliance determination methods below:

On or after June 1, 1995, compliance with the sulfur dioxide emission limitations for gas-fired boiler Nos. A and B shall be demonstrated in accordance with the following provisions:

A. Co-located continuous monitoring systems (for sulfur dioxide and oxygen) shall be installed, calibrated, maintained, and operated to measure the concentration of sulfur dioxide and oxygen in the combustion gases discharged from these boilers. The continuous monitoring systems and programs shall comply with the following provisions under 40 CFR Part 60: Part 60.13(a), (c), (d)(1), (e)(2), (f), (g), (h), (i), (j), Part 60.45(c), (e), (f), Part 60.46(b)(4), Part 60; Appendix A, Methods 6, 6A, and 6B, Part 60; Appendix B, Performance Specification 2, Part 60, Appendix B, Performance Specification 3. All continuous emission monitoring data required to be collected shall be quality assured in accordance with 40 CFR Part 60, Appendix F Quality Assurance Procedures.

B. Following installation of the continuous monitoring system, compliance shall be determined based upon a rolling three (3) hour average of measured sulfur dioxide concentrations and procedures approved by the Director to calculate hourly mass emissions.

C. During any period after June 1, 1995 in which either of these boilers is operated without its continuous emission monitoring system in proper operation, EWVI shall fire only natural gas or desulfurized refinery fuel gas in the boiler.

[CO-SIP-95-1 – Condition V.3 (SIPed) (During fuel oil combustion only)]

EWVI shall have installed and shall calibrate, maintain, and operate a continuous emission monitoring system as herein provided to measure the concentration of hydrogen sulfide in all refinery fuel gas streams. Installation, calibration, maintenance, and operation of such continuous emission monitoring system shall comply with the following provisions of 40 CFR Part 60: Part 60.13(a), (c), (d)(1), (e)(2), (f), (g), (h), (i), (j), Part 60.105(a)(4), Part 60.106(e) part 60, Appendix A, Method 11, Part 60; Appendix B, Performance Specification 7. The Director may approve the installation of sulfur dioxide and oxygen monitoring systems to monitor sulfur dioxide emissions in the exhaust gases from combustion units firing refinery fuel gas in lieu of a hydrogen sulfide monitoring system for the fuel gas streams. Such SO_2 and oxygen monitoring systems shall be subject to the performance specifications, quality assurance procedures, and other related requirements under 40 CFR Part 60.

[CO-SIP-95-1 – Condition V.6 (SIPed)]

All continuous emission monitoring data required to be collected shall be quality assured in accordance with 40 CFR Part 60, Appendix F Quality Assurance Procedures.

[CO-SIP-95-1 – Condition V.7 (SIPed)]

Continuous monitoring systems for NOx shall be installed, calibrated, maintained, and operated to measure the concentration of NOx in the combustion gases discharged from these boilers. The continuous monitoring systems and programs shall comply with the applicable requirements of 40 CFR Part 60. Following installation of the continuous monitoring system, compliance shall be determined based upon a rolling three (3) hour average of measured NOx concentrations and procedures approved by the Director to calculate hourly mass emissions.

[CO-SIP-95-1 – Condition V.11.D (SIPed)]

Testing:

During any period of failure or malfunction of the hydrogen sulfide continuous emission monitoring system, H_2S concentrations of the refinery fuel gas shall be determined by collection of not less than two (2) gas samples per eight (8) hour period which are analyzed by gas chromatography for hydrogen sulfide content, density and heating value in accordance with ASTM Method D-1945. EWVI may request approval by the Director of alternative sampling and analytical methods for determination of these parameters during periods when the H_2S monitoring system has failed or malfunctioned.

[CO-SIP-95-1 – Condition V.11 (SIPed)]

Sources of sulfur dioxide emissions subject to CO-SIP-95-1 shall demonstrate compliance with the limit of 50 grains per 100 dry standard cubic feet of gas using data collected in accordance with this section and reference emissions test procedures in 40 CFR Part 60, Appendix A, Methods 6, 6A, 6B, and 19.

[CO-SIP-95-1 – Condition V.8 (SIPed)]

Any source for which compliance with sulfur dioxide emissions limitations are not demonstrated using continuous emission monitoring systems, must demonstrate compliance with the limit of 50 grains per 100 dry standard cubic feet of gas not less frequently than semi-annually. At least three test runs, each with sufficient samples to characterize a two-hour period representative of normal source operation, shall be required for each compliance demonstration using the reference test procedures specified in 40 CFR Part 60, Appendix A, Methods 6, 6A, 6B, and 19.

[CO-SIP-95-1 – Condition V.9 (SIPed)]

Recordkeeping:

EWVI shall maintain records of the occurrence and duration of any start-up, shut-down, or malfunction in the operation of sources subject to CO-SIP-95-1, any malfunction of air pollution control equipment or any periods during which a continuous monitoring system or device is inoperative.

[CO-SIP-95-1 – Condition VI.4 (SIPed)]

EWVI shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and

performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by CO-SIP-95-1 or otherwise by the Director.
[CO-SIP-95-1 – Condition VI.5 (SIPed)]

Reporting:
EWVI shall submit an excess emissions and monitoring systems performance report to the Director for all sources for which EWVI is required to maintain and operate a continuous monitoring system or monitoring device for sulfur dioxide or hydrogen sulfide on a calendar monthly basis. All such reports shall be submitted by the 30th day following the end of each calendar month and shall contain the results of all determinations showing excess emissions regardless of whether the determinations are made by continuous monitoring data or by other methods established by CO-SIP-95-1. Written reports of excess emissions shall include the following information:

A. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, the date and time at which the excess emissions started and ended for each occurrence of excess emissions and the process operating time during the reporting period.
B. Specific identification of each period of excess emissions that occurred during start-ups, shut-downs, and malfunctions of the affected facility. Each malfunction report filed with the Director shall be referenced by report number with the date of occurrence and date of report submission noted.
C. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
D. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

If the total duration of excess emissions during the reporting period is less than one percent (1%) of the total operating time for the reporting period, and downtime for the continuous monitoring system for the reporting period is less than five percent (5%) of the total operating time for the reporting period, only the summary report form listed as Figure 1 in 40 CFR Part 60.7(d) shall be submitted, and the excess emission report described above need not be submitted unless requested by the Director. If the total duration of excess emissions for the reporting period is one percent (1%) or greater of the total operating time for the reporting period, or the total continuous system downtime for the reporting period is five percent (5%) or greater of the total operating time for the reporting period, the summary report form and the excess emission report described above shall both be submitted to the Director.
[CO-SIP-95-1 – Condition VI.3 (SIPed)]

EWVI shall report to the Director, by telephone or telefax, any malfunction of such source or its air pollution control equipment which results in any excess sulfur dioxide emission rate or concentration within twenty-four (24) hours of becoming aware of such condition. EWVI shall file a written report concerning the malfunction with the Director within ten (10) days, providing the following information:

A. A detailed explanation of the factors involved or causes of the malfunction.
B. The date and time of duration (with starting and ending times) of the period of excess emissions.
C. An estimate of the mass of excess emissions discharged during the malfunction period.
D. The maximum emission rate or concentration measured or otherwise determined during the malfunction in units of the applicable emissions standard.
E. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction.
F. A detailed explanation of the corrective measure or program that shall be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[CO-SIP-95-1 – Condition VI.7 (SIPed)]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No
If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
007-02	Boiler B	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Boiler B; refinery fuel gas/natural gas blend

Manufacturer:	**Model number:**	**Serial number:**
Foster Wheeler Ltd	AG 5150	5215
Construction date:	**Installation date:**	**Modification date(s):**
03/01/1971	04/01/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
159.5 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
156,373 cf/hr	1,370 MMcf/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X__Yes ___ No	**If yes, is it?** ___ Indirect Fired _X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 159.5 MMBtu/hr	**Type and Btu/hr rating of burners:** Next Generation Ultra Low NOx Burner 159.5 MMBtu/hr

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.
Refinery Fuel Gas/Natural Gas Blend
Max Hourly Usage = 156,373 cf/hr
Max Annual Usage = 1,370 MMcf/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Refinery Fuel Gas/ Natural Gas Blend	0.016%	N/A	1,020 Btu/cf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	13.13	57.53
Nitrogen Oxides (NO_X)	9.25	40.52
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	1.19	5.21
Particulate Matter (PM_{10})	1.19	5.21
Total Particulate Matter (TSP)	1.19	5.21
Sulfur Dioxide (SO_2)	0.92	4.03
Volatile Organic Compounds (VOC)	0.86	3.77
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.).

The emission factors for PM, VOC, and CO were obtained from U.S. EPA Document AP-42, "Compilation of Air Pollutant Emission Factors, Volume I: Stationary and Area Sources," Office of Air Quality Planning and Standards, Research Triangle Park, NC.

The SO_2 emission factor is based on a blend of 20% Refinery Fuel Gas (RFG) and 80% Natural Gas (NG). For RFG, the emission rate is calculated as follows (using 160 vppm H_2S): Emission Factor (lb SO_2/MMBtu = (160 mol H_2S/10E6 mol RFG) x (1 mol SO_2/1 mol H_2S) x (64 lb SO_2/mol SO_2) x (mol RFG/379 SCF) x (SCF RFG/1,020 Btu) x (10E6 Btu/MMBtu) = 0.0265 lb SO_2/MMBtu. An emission factor of 0.00059 lb/MMBtu is used for natural gas.

The NOx emission factor of 0.058 lb/MMBtu is based on CEMS data. Boiler B has been de-rated to match Boiler A

*For the purposes of Title V Permitting, it is assumed that $PM_{2.5}$=PM_{10}=TSP.

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.

Applicable Requirement - 45 CSR 2
Limitations – Sections 4.1.1, 4.1.3, 4.1.4, 4.1.7, 4.1.8, 4.1.9 - R13-2334M
Applicable Requirement - 45 CSR 10
Limitations – Sections 4.1.10, 4.1.11, 4.1.12, 4.1.13 - R13-2334M
Applicable Requirement - 45 CSR 13
Limitations – Sections 4.1.6, 4.1.16 - R13-2334M
Applicable Requirement – CO-SIP-95
Limitations – Sections 4.1.17, 4.1.18 – R13-2334M
Applicable Requirement – CO-SIP-95
Limitations – V.11.D – NOx emissions from Boiler B shall be limited to 0.058 lb/MMBtu on a 3-hour average as demonstrated by actual performance indicated by CEMS data.

__X__ 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.)

45 CSR 2
Monitoring:
Visual emission checks of each emission point subject to an opacity limit shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using 40 CFR 60 Appendix A, Method 22. If natural gas is being combusted, the visual emissions checks shall be conducted monthly. If fuel oil is being combusted, the visual emissions checks shall be conducted weekly. If visible emissions are identified during the survey, or at any other time, EWVI shall take corrective action to minimize the emissions immediately. If during these checks, or at any other time, visible emissions are observed, a visible emission evaluation shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, the name of the observer, and any data required by 40 CFR 60 Appendix A, Method 22 or Method 9.
[45 CSR 13 - Permit R13-2334 - 4.2.1]

EWVI shall monitor compliance with 45CSR§2-3 in an approved monitoring plan (see Appendix A) for each emission unit. Such plans shall include, but not be limited to, one or more of the following: continuous measurement of emissions, monitoring of emission control equipment, periodic parametric monitoring, or such other monitoring as approved by the Director.
[45 CSR 2-8.2.; 45CSR13 - Permit R13-2334 - 4.1.15]

Testing:
N/A

Recordkeeping:
EWVI shall maintain a periodic exception report for each unit. Such reports shall include, but may not be limited to the date and time of start-ups and shutdowns. All such requirements, including notification by telephone, telefax, or other such method determined by the Director, shall be deemed to be satisfied when the reports are maintained on site for a period of no less than five (5) years and shall be made available upon request to the Director or his/her duly authorized representative.
[45 CSR 2-8.3.b.; 45 CSR 13 - Permit R13-2334 - 4.4.2]

EWVI shall maintain records of the operating schedule and the quantity of fuel consumed in each fuel burning unit monthly, at a minimum, but may record it more often at their discretion.
[45 CSR 2-8.3.c; 45 CSR 13 – Permit R13-2334 – 4.4.3]
Reporting:
EWVI shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in 45CSR§§2-3 and 4) as provided in one of the following subdivisions:

a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:
    1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and
    2. Excess opacity does not exceed 40%.
b. EWVI shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in 45CSR§2-9.3.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. EWVI shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:
    1. A detailed explanation of the factors involved or causes of the malfunction;
    2. The date and time of duration (with starting and ending times) of the period of excess emissions;
    3. An estimate of the mass of excess emissions discharged during the malfunction period;
    4. The maximum opacity measured or observed during the malfunction;
    5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
    6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45 CSR 2-9.3; 45 CSR 13 – Permit R13-2334 – 4.5.1]

The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment efficiency shall be reviewed by the Director. No person shall cause, suffer, allow or permit the addition of sulfur oxides as described above unless written approval for such addition is provided by the Director.
[45 CSR 2-4.4; 45CSR13 - Permit R13-2334 - 4.1.2]

45 CSR 10
Monitoring:
Compliance with the hydrogen sulfide concentration limit of 230 mg/dscm (0.10 gr/dscf) shall be demonstrated using a continuous emission monitoring system which shall comply with the following provisions of 40 CFR Part 60: Part 60.13(a), (c), (d)(1), (e)(2), (f), (g), (h), (i), (j), Part 60.105(a)(4), Part 60.106(e) part 60, Appendix A, Method 11, Part 60; Appendix B, Performance Specification 7.
[45 CSR 13 – Permit R13-2334 – 4.2.2]

EWVI shall demonstrate compliance with sections 3, 4 and 5 of 45CSR10 by testing and /or monitoring in accordance with one or more of the following: 40 CFR Part 60, Appendix A, Method 6, Method 15, continuous emissions monitoring systems (CEMS) or fuel sampling and analysis as set forth in an approved monitoring plan for each emission unit.
[45 CSR 10-8.2.c; 45CSR13 - Permit R13-2334 - 4.1.14]

Testing:
N/A

Recordkeeping:
EWVI shall maintain an on-site record of all required monitoring data as established in a monitoring plan pursuant to 45CSR 10-8.2.c. Such records shall be made available to the Director upon request. Records shall be retained on-site for a minimum of five years.
[45 CSR 10-8.3.a; 45 CSR 13 – Permit R13-2334 – 4.4.4]

EWVI shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each unit in a manner specified by the Director. Such records shall be maintained on-site and made available to the Director upon request.
[45 CSR 10-8.3.c; 45 CSR 13 - Permit R13-2334 – 4.4.5]

Reporting:
EWVI shall submit a periodic exception report to the Director, in a manner specified by the Director. Such an

exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan and shall include the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion, and the corrective action taken.
[45 CSR 10-8.3.b; 45 CSR 13 – Permit R13-2334 – 4.5.2]

Due to unavoidable malfunction of equipment or inadvertent fuel shortages, emissions exceeding those provided for in 45CSR10 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction or fuel shortage. In cases of major equipment failure or extended shortages of conforming fuels, additional time periods may be granted by the Director provided a corrective program has been submitted by EWVI and approved by the Director.
[45 CSR 10-9.1 and 45 CSR 13 - Permit R13-2334 - 4.1.5]

45 CSR 13
Monitoring:
N/A

Testing:
At the request of the Director, EWVI shall conduct a performance test of Boilers A and B to determine NOx emissions rate limits. Such performance test shall be conducted in accordance with an approved EPA method and shall be performed during the operating condition of combusting the maximum amount of refinery fuel gas within the natural gas/refinery fuel gas mixture feasible at the time of the test (with the understanding the maximum percentage of refinery fuel gas within the mixture could be as high as 20%). At least 30 days prior to testing, EWVI shall submit a test protocol subject to approval by the Director.
[45 CSR 13 – Permit R13-2334 – 4.3.1 (Boilers A and B)]

Recordkeeping:
EWVI shall document the frequency, length of time, amount of fuel oil consumed, and estimate of emissions during DOT maintenance and periods of natural gas curtailment in which fuel oil was combusted. EWVI shall keep records of the sulfur content of all fuel oil received for the purpose of combustion. Each batch of fuel oil shall have its sulfur content determined by test method, ASTM D4294. This information, along with appropriate emission factors from *EPA's AP-42 Fifth Edition, Volume I, Supplement E, Chapter 1.3*, may be used to estimate emissions.
[45 CSR 13 – R13-2334 – 4.4.1]

To determine compliance with the emission limits set forth for Boiler A and Boiler B, EWVI shall keep monthly records of the amount of fuel gas (refinery plus natural gas) consumed within the two boilers, individually. This information, along with appropriate emission factors from EPA's Supplement D, Chapter 1.4, may be used to estimate monthly emissions of all pollutants except SO_2. Compliance with the yearly limit shall be based on a 12-month rolling total. Compliance with this limit shall demonstrate compliance with the less stringent requirement of CO-SIP-95-1 – Condition IV.3.A. (SIPed) and 45 CSR 10-3.1.e.
[45 CSR 13 – Permit R13-2334 – 4.4.6, CO-SIP-95-1 – Condition IV.3.A (SIPed) and 45 CSR 10-3.1.e]

Reporting:
N/A

CO-SIP-95
Monitoring:
Compliance with the emission limitations of CO-SIP-95-1 shall be based upon the averaging time and compliance determination methods below:

On or after June 1, 1995, compliance with the sulfur dioxide emission limitations for gas-fired boiler Nos. A and B shall be demonstrated in accordance with the following provisions:

A. Co-located continuous monitoring systems (for sulfur dioxide and oxygen) shall be installed, calibrated, maintained, and operated to measure the concentration of sulfur dioxide and oxygen in the combustion gases discharged from these boilers. The continuous monitoring systems and programs shall comply with the following provisions under 40 CFR Part 60: Part 60.13(a), (c), (d)(1), (e)(2), (f), (g), (h), (i), (j), Part 60.45(c), (e), (f), Part 60.46(b)(4), Part 60; Appendix A, Methods 6, 6A, and 6B, Part 60; Appendix B, Performance Specification 2, Part 60, Appendix B, Performance Specification 3. All continuous emission monitoring data required to be collected shall be quality assured in accordance with 40 CFR Part 60, Appendix F Quality Assurance Procedures.

B. Following installation of the continuous monitoring system, compliance shall be determined based upon a rolling three (3) hour average of measured sulfur dioxide concentrations and procedures approved by the Director to calculate hourly mass emissions.

C. During any period after June 1, 1995 in which either of these boilers is operated without its continuous emission monitoring system in proper operation, EWVI shall fire only natural gas or desulfurized refinery fuel gas in the boiler.

[CO-SIP-95-1 – Condition V.3 (SIPed) (During fuel oil combustion only)]

EWVI shall have installed and shall calibrate, maintain, and operate a continuous emission monitoring system as herein provided to measure the concentration of hydrogen sulfide in all refinery fuel gas streams. Installation, calibration, maintenance, and operation of such continuous emission monitoring system shall comply with the following provisions of 40 CFR Part 60: Part 60.13(a), (c), (d)(1), (e)(2), (f), (g), (h), (i), (j), Part 60.105(a)(4), Part 60.106(e) part 60, Appendix A, Method 11, Part 60; Appendix B, Performance Specification 7. The Director may approve the installation of sulfur dioxide and oxygen monitoring systems to monitor sulfur dioxide emissions in the exhaust gases from combustion units firing refinery fuel gas in lieu of a hydrogen sulfide monitoring system for the fuel gas streams. Such SO_2 and oxygen monitoring systems shall be subject to the performance specifications, quality assurance procedures, and other related requirements under 40 CFR Part 60.

[CO-SIP-95-1 – Condition V.6 (SIPed)]

All continuous emission monitoring data required to be collected shall be quality assured in accordance with 40 CFR Part 60, Appendix F Quality Assurance Procedures.

[CO-SIP-95-1 – Condition V.7 (SIPed)]

Continuous monitoring systems for NOx shall be installed, calibrated, maintained, and operated to measure the concentration of NOx in the combustion gases discharged from these boilers. The continuous monitoring systems and programs shall comply with the applicable requirements of 40 CFR Part 60. Following installation of the continuous monitoring system, compliance shall be determined based upon a rolling three (3) hour average of measured NOx concentrations and procedures approved by the Director to calculate hourly mass emissions.

[CO-SIP-95-1 – Condition V.11.D (SIPed)]

Testing:

During any period of failure or malfunction of the hydrogen sulfide continuous emission monitoring system, H_2S concentrations of the refinery fuel gas shall be determined by collection of not less than two (2) gas samples per eight (8) hour period which are analyzed by gas chromatography for hydrogen sulfide content, density and heating value in accordance with ASTM Method D-1945. EWVI may request approval by the Director of alternative sampling and analytical methods for determination of these parameters during periods when the H_2S monitoring system has failed or malfunctioned.

[CO-SIP-95-1 – Condition V.11 (SIPed)]

Sources of sulfur dioxide emissions subject to CO-SIP-95-1 shall demonstrate compliance with the limit of 50 grains per 100 dry standard cubic feet of gas using data collected in accordance with this section and reference emissions test procedures in 40 CFR Part 60, Appendix A, Methods 6, 6A, 6B, and 19.

[CO-SIP-95-1 – Condition V.8 (SIPed)]

Any source for which compliance with sulfur dioxide emissions limitations are not demonstrated using continuous emission monitoring systems, must demonstrate compliance with the limit of 50 grains per 100 dry standard cubic feet of gas not less frequently than semi-annually. At least three test runs, each with sufficient samples to characterize a two-hour period representative of normal source operation, shall be required for each compliance demonstration using the reference test procedures specified in 40 CFR Part 60, Appendix A, Methods 6, 6A, 6B, and 19.

[CO-SIP-95-1 – Condition V.9 (SIPed)]

Recordkeeping:

EWVI shall maintain records of the occurrence and duration of any start-up, shut-down, or malfunction in the operation of sources subject to CO-SIP-95-1, any malfunction of air pollution control equipment or any periods during which a continuous monitoring system or device is inoperative.

[CO-SIP-95-1 – Condition VI.4 (SIPed)]

EWVI shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous

monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by CO-SIP-95-1 or otherwise by the Director.
[CO-SIP-95-1 – Condition VI.5 (SIPed)]

Reporting:
EWVI shall submit an excess emissions and monitoring systems performance report to the Director for all sources for which EWVI is required to maintain and operate a continuous monitoring system or monitoring device for sulfur dioxide or hydrogen sulfide on a calendar monthly basis. All such reports shall be submitted by the 30th day following the end of each calendar month and shall contain the results of all determinations showing excess emissions regardless of whether the determinations are made by continuous monitoring data or by other methods established by CO-SIP-95-1. Written reports of excess emissions shall include the following information:

A. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, the date and time at which the excess emissions started and ended for each occurrence of excess emissions and the process operating time during the reporting period.
B. Specific identification of each period of excess emissions that occurred during start-ups, shut-downs, and malfunctions of the affected facility. Each malfunction report filed with the Director shall be referenced by report number with the date of occurrence and date of report submission noted.
C. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
D. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

If the total duration of excess emissions during the reporting period is less than one percent (1%) of the total operating time for the reporting period, and downtime for the continuous monitoring system for the reporting period is less than five percent (5%) of the total operating time for the reporting period, only the summary report form listed as Figure 1 in 40 CFR Part 60.7(d) shall be submitted, and the excess emission report described above need not be submitted unless requested by the Director. If the total duration of excess emissions for the reporting period is one percent (1%) or greater of the total operating time for the reporting period, or the total continuous system downtime for the reporting period is five percent (5%) or greater of the total operating time for the reporting period, the summary report form and the excess emission report described above shall both be submitted to the Director.
[CO-SIP-95-1 – Condition VI.3 (SIPed)]

EWVI shall report to the Director, by telephone or telefax, any malfunction of such source or its air pollution control equipment which results in any excess sulfur dioxide emission rate or concentration within twenty-four (24) hours of becoming aware of such condition. EWVI shall file a written report concerning the malfunction with the Director within ten (10) days, providing the following information:

A. A detailed explanation of the factors involved or causes of the malfunction.
B. The date and time of duration (with starting and ending times) of the period of excess emissions.
C. An estimate of the mass of excess emissions discharged during the malfunction period.
D. The maximum emission rate or concentration measured or otherwise determined during the malfunction in units of the applicable emissions standard.
E. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction.
F. A detailed explanation of the corrective measure or program that shall be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[CO-SIP-95-1 – Condition VI.7 (SIPed)]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No
If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
007-03	Boiler C	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Boiler C; natural gas

Manufacturer:	**Model number:**	**Serial number:**
Todd Construction	V5MG0XXX	1293
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2000	MM/DD/2000	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
95 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
93,137 cf/hr	815.84 MMcf/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X__Yes ___ No	**If yes, is it?** ___ Indirect Fired _X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 95 MMBtu/hr	**Type and Btu/hr rating of burners:** Traditional NOx Burner 95 MMBtu/hr

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.
Natural Gas
Max Hourly Usage = 93,137 cf/hr
Max Annual Usage = 815.8 MMcf/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	20 gr/100 cf	N/A	1,020 Btu/cf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	7.82	34.26
Nitrogen Oxides (NO_X)	4.75	20.80
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.71	3.10
Particulate Matter (PM_{10})	0.71	3.10
Total Particulate Matter (TSP)	0.71	3.10
Sulfur Dioxide (SO_2)	0.06	0.24
Volatile Organic Compounds (VOC)	0.51	2.24
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.).

The emission factors for PM, VOC, and CO were obtained from U.S. EPA Document AP-42, "Compilation of Air Pollutant Emission Factors, Volume I: Stationary and Area Sources," Office of Air Quality Planning and Standards, Research Triangle Park, NC.

Boiler C is fired on natural gas only; therefore the SO_2 emission factor from AP-42 Table 1.4-2 (0.00059 lb/MMBtu) is used.

The NOx emission factor is the maximum emission rate allowed under Section V.11.B of the Consent Decree. Performance testing indicates a NOx emission rate of 0.042 lb/MMBtu.

*For the purposes of Title V Permitting, it is assumed that $PM_{2.5}$=PM_{10}=TSP.

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.

Applicable Requirement - 45 CSR 2
Limitations – Sections 4.1.1, 4.1.3, 4.1.4, 4.1.7, 4.1.8, 4.1.9 - R13-2334M
Applicable Requirement - 45 CSR 10
Limitations – Sections 4.1.10, 4.1.11 - R13-2334M
Applicable Requirement - 45 CSR 13
Limitations – Sections 4.1.6, 4.1.19, 4.1.20 - R13-2334M
Applicable Requirement – 45 CSR 16
Limitations – N/A

__X__ 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.)

45 CSR 2
Monitoring:
Visual emission checks of each emission point subject to an opacity limit shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using 40 CFR 60 Appendix A, Method 22. If natural gas is being combusted, the visual emissions checks shall be conducted monthly. If fuel oil is being combusted, the visual emissions checks shall be conducted weekly. If visible emissions are identified during the survey, or at any other time, EWVI shall take corrective action to minimize the emissions immediately. If during these checks, or at any other time, visible emissions are observed, a visible emission evaluation shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, the name of the observer, and any data required by 40 CFR 60 Appendix A, Method 22 or Method 9.
[45 CSR 13 - Permit R13-2334 - 4.2.1]

Testing:
N/A

Recordkeeping:
EWVI shall maintain a periodic exception report for each unit. Such reports shall include, but may not be limited to the date and time of start-ups and shutdowns. All such requirements, including notification by telephone, telefax, or other such method determined by the Director, shall be deemed to be satisfied when the reports are maintained on site for a period of no less than five (5) years and shall be made available upon request to the Director or his/her duly authorized representative.
[45 CSR 2-8.3.b.; 45 CSR 13 - Permit R13-2334 - 4.4.2]

EWVI shall maintain records of the operating schedule and the quantity of fuel consumed in each fuel burning unit monthly, at a minimum, but may record it more often at their discretion.
[45 CSR 2-8.3.c; 45 CSR 13 – Permit R13-2334 – 4.4.3]

Reporting:
EWVI shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in 45CSR§§2-3

and 4) as provided in one of the following subdivisions:

a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:
   1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and
   2. Excess opacity does not exceed 40%.
b. EWVI shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in 45CSR§2-9.3.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. EWVI shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:
   1. A detailed explanation of the factors involved or causes of the malfunction;
   2. The date and time of duration (with starting and ending times) of the period of excess emissions;
   3. An estimate of the mass of excess emissions discharged during the malfunction period;
   4. The maximum opacity measured or observed during the malfunction;
   5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
   6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45 CSR 2-9.3; 45 CSR 13 – Permit R13-2334 – 4.5.1]

The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment efficiency shall be reviewed by the Director. No person shall cause, suffer, allow or permit the addition of sulfur oxides as described above unless written approval for such addition is provided by the Director.
[45 CSR 2-4.4; 45CSR13 - Permit R13-2334 - 4.1.2]

45 CSR 10
Monitoring:
N/A

Testing:
N/A

Recordkeeping:
N/A

Reporting:
Due to unavoidable malfunction of equipment or inadvertent fuel shortages, emissions exceeding those provided for in 45CSR10 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction or fuel shortage. In cases of major equipment failure or extended shortages of conforming fuels, additional time periods may be granted by the Director provided a corrective program has been submitted by EWVI and approved by the Director.
[45 CSR 10-9.1 and 45 CSR 13 - Permit R13-2334 - 4.1.5]

45 CSR 13
Monitoring:
N/A

Testing:
EWVI shall conduct a performance test for NOx. The results shall be based upon the average of three (3) one hour testing periods in accordance with EPA methods at 40 CFR 60 Appendix A.
[45 CSR 13 – Permit R13-2334 – 4.3.2 (Boiler C and Heater 101)]

Recordkeeping:
EWVI shall document the frequency, length of time, amount of fuel oil consumed, and estimate of emissions during DOT maintenance and periods of natural gas curtailment in which fuel oil was combusted. EWVI shall keep records of the sulfur content of all fuel oil received for the purpose of combustion. Each batch of fuel oil shall have its sulfur content determined by test method, ASTM D4294. This information, along with appropriate emission factors from *EPA's AP-42 Fifth Edition, Volume I, Supplement E, Chapter 1.3*, may be used to estimate emissions.
[45 CSR 13 – R13-2334 – 4.4.1]

To determine compliance with emission limits, EWVI shall keep monthly records of the amount of natural gas consumed within Boiler C and the hours of operation. This information, along with appropriate emission factors from *EPA's AP-42 Fifth Edition, Volume I, Supplement D: Stationary Point and Area Sources* (AP-42), Chapter 1.4, may be used to estimate monthly emissions of all pollutants except NOx. The emission factor for NOx shall be obtained from the Global Consent Decree (Civil No. 3:03CV114010S), which sets a limit of 0.050 lb/MMBtu. Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 4.4.7]

Reporting:
N/A

45 CSR 16
Monitoring:
N/A

Testing:
N/A

Recordkeeping:
N/A

Reporting:
EWVI is responsible for submitting notification of the date of construction or reconstruction, anticipated startup, and actual startup and complying with 40 CFR 60.40c, 40 CFR 60.48c, and 40 CFR 60.8. EWVI has complied with this requirement by submitting notification. Renotification will be required if modifications are made.
[40 C.F.R. § 60.48c and 45CSR§16-2.1. *(Boiler C only)*; 45CSR13 - R13-2334 - 4.5.3.]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
009-01	T Load	00A-02

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Truck Loading

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
03/01/1972	04/01/1972	2013

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
418 MMgal/yr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
45,000 gal/hr	418 MMgal/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	4.14	4.21
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	0.05	0.06
Toluene	0.20	0.22
Xylenes	0.20	0.22
Ethylbenzene	0.04	0.05
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.).

The VOC emissions were calculated using the loading loss equation for truck loading in EPA AP-42 Ch. 5.2 and a capture efficiency of 98.7% from the thermal oxidizer (00A-02).

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.

Applicable Requirement - 45 CSR 6
Limitations – Sections 5.1.1, 5.1.2, – R13-2334V
Applicable Requirement - 45 CSR 13
Limitations – Sections 5.1.1, 5.1.2 – R13-2334V

__X__ 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.)

Monitoring:
The permittee shall monitor the PM emissions by conducting visible emissions checks in accordance with Section 4.2.1. of this permit.
[Permit R13-2334V – Section 5.2.1]

To determine compliance with the annual emission rate limits set forth in Section 5.1.1, the permittee may estimate emissions using 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.
[Permit R13-2334V – Section 5.2.3]

Testing:
N/A

Recordkeeping:
To determine compliance with emission limits set forth in Section 5.1.1., EWVI shall keep a monthly record of the volume and type of each product/product type loaded at each truck loading station and marine barge loading station whether or not the VOC emissions were controlled using the control device [OXIDIZER, or MLDOX]. AP-42 emission factors for flares and transportation and marketing of petroleum liquids (Chapter 5.2, 1/95) may be used to estimate emissions.
[45 CSR 13 - Permit R13-2334 - 5.4.1]

To determine compliance with the annual benzene emission limit set forth in Section 5.1.1., EWVI shall estimate the emissions using a material balances calculation utilizing the vapor weight of benzene present in petroleum liquids processed and transported at the facility. The following equation shall be to determine monthly and yearly emissions.

Benzene Emissions (tpm or tpy) = (Total VOCs (tpm or tpy)) x (Actual Benzene Vapor Weight %)

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45 CSR 13 - Permit R13-2334 - 5.4.2]

Reporting:
The permittee shall comply with the reporting requirements of 40 CFR Part 60, Subpart J.
[40C.F.R.§60.107 and Consent Decree Civil No. 3.03CV114010S V.14]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
009-02	MLD	00A-04

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Marine Barge Loading

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1972	MM/DD/1972	2012

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
460.7 MMgal/yr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
210,000 gal/hr	460.7 MMgal/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

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Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	10.96	4.65
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hexane	0.26	0.20
Benzene	0.08	0.02
Toluene	0.30	0.09
Xylene	0.30	0.10
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.).

Emission factors obtained from EPA AP-42, Chapter 5.2 , Transportation and Marketing of Petroleum Liquids.

A capture efficiency of 98.7% was used as the control device efficiency (00A-04).

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement - 45 CSR 6
Limitations – Sections 5.1.1, 5.1.2, 5.1.4, 5.1.5 – R13-2334V
Applicable Requirement - 45 CSR 13
Limitations – Sections 5.1.1, 5.1.2, 5.1.4, 5.1.5 – R13-2334V

_X___ 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.)

<u>Monitoring:</u>
The permittee shall monitor the PM emissions by conducting visible emissions checks in accordance with Section 4.2.1. of this permit.
[Permit R13-2334V – Section 5.2.1]

To determine compliance with the annual emission rate limits set forth in Section 5.1.1, the permittee may estimate emissions using 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.
[Permit R13-2334V – Section 5.2.3]

<u>Testing:</u>
The permittee shall calculate an annual estimate of HAP emissions from gasoline and light crude oil from marine tank vessel loading operations. Emission estimates and emission factors shall be based on test data, or if test data is not available, shall be based on measurement or estimating techniques generally accepted in industry practice for operating conditions at the source.
[MACT, Subpart Y; 63.560(a)(3); Permit R13-2334V – Section 5.3.4]

<u>Recordkeeping:</u>
To determine compliance with emission limits set forth in Section 5.1.1., EWVI shall keep a monthly record of the volume and type of each product/product type loaded at each truck loading station and marine barge loading station whether or not the VOC emissions were controlled using the control device [OXIDIZER, or MLDOX]. AP-42 emission factors for flares and transportation and marketing of petroleum liquids (Chapter 5.2, 1/95) may be used to estimate emissions.
[45 CSR 13 - Permit R13-2334 - 5.4.1]

To determine compliance with the annual benzene emission limit set forth in Section 5.1.1., EWVI shall estimate the emissions using a material balances calculation utilizing the vapor weight of benzene present in petroleum liquids processed and transported at the facility. The following equation shall be to determine monthly and yearly emissions.

Benzene Emissions (tpm or tpy) = (Total VOCs (tpm or tpy)) x (Actual Benzene Vapor Weight %)

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45 CSR 13 - Permit R13-2334 - 5.4.2]

The permittee shall retain records of the emissions estimates determined in §63.565(l) and requirement 5.1.x of this permit and their actual throughputs by commodity for gasoline and light

crude oil for 5 years.
[MACT, Subpart Y; 63.S60(a)(3); Permit R13-2334V – Section 5.4.6]

Reporting:
The permittee shall comply with the reporting requirements of 40 CFR Part 60, Subpart J.
[40C.F.R.§60.107 and Consent Decree Civil No. 3.03CV114010S V.14]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
00A-02	OXIDIZER	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Thermal Oxidizer – Truck Loading

Manufacturer:	**Model number:**	**Serial number:**
John Zink	ZCT-2-8-35-2-316-X	N/A
Construction date:	**Installation date:**	**Modification date(s):**
1994	1994	2012

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
17,346 MMBtu/yr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
0.45 MMBtu/hr	17,346 MMBtu/yr	8,760 hr/yr (pilot)

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __X__Yes ___ No	**If yes, is it?** ___ Indirect Fired __X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 17,346 MMBtu/yr	**Type and Btu/hr rating of burners:** Low NO_x Burner

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.
Refinery Fuel Gas/Natural Gas Blend
Max Hourly Usage = 0.25 MMBtu/hr
Max Annual Usage = 2,190 MMBtu/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Refinery Fuel Gas/Natural Gas Blend	0.016%	N/A	1,020 Btu/cf

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Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.17	1.98
Nitrogen Oxides (NO_X)	0.03	0.36
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.003	0.04
Particulate Matter (PM_{10})	0.003	0.04
Total Particulate Matter (TSP)	0.003	0.04
Sulfur Dioxide (SO_2)	0.05	1.16
Volatile Organic Compounds (VOC)	10.76	11.59
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	0.19	0.20
Toluene	0.75	0.81
Xylenes	0.75	0.81
Ethylbenzene	0.15	0.16
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
CO_2	52.65	629.49
CH_4 (as CO_2e)	0.03	0.30
N_2O (as CO_2e)	0.08	1.00
CO_2e	52.76	630.79

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.).

Emission Factors for NOx and CO obtained from EPA AP-42, Chapter 13.5 Flares,
PM from EPA AP-42, Chapter 1.4, Natural Gas Combustion.
SO2 emission factors are based on the expected sulfur content of the products combusted in the thermal oxidizer @ 0.5% S per lb crude oil.
VOC emissions are based upon the Loading Loss equation of EPA AP-42, Chapter 5.2 and a 98.7% control efficiency.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

<u>Limitations and Standards:</u>
Emissions shall not exceed those listed in table 5.1.1. Annual emissions are based upon a 12 month rolling basis.
[13R-2334V – Section 5.1.1]

The permittee shall not exceed the annual limits in the table listed in Section 5.1.2 that correspond to the emission limits established in requirement 5.1 .1. Annual quantities are based on a 12-month rolling basis.
[13R-2334V – Section 5.1.2]

During truck loading of gasoline, VOC emissions shall be controlled by the Loading Rack Thermal Oxidizer [OXIDIZER/00A-02].
[13R-2334V – Section 5.1.3]

The Main Source Gas Flare [F1/00A -01], the Truck Loading Thermal Oxidizer [OXIDIZER/00A-02], and the Marine Loading Thermal Oxidizer [MLDOX/00A-04] are subject to the requirements of 45CSR6 including but not limited to the following:

a. No person shall cause, suffer, allow or permit particulate matter to be discharged from any incinerator into the open air in excess of the quantity determined by the use of the formula in Section 5.1.6.
   [45CSR 6-4.1]
b. No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.
   [45CSR§6-4.3]
c. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
   [45CSR§6-4.6]

[13R-2334V – Section 5.1.6]

The permittee shall not cause, suffer, allow, or permit the emission into open air from any source operation an in-stack sulfur dioxide concentration exceeding 2000 ppm by volume from existing source operations. Note: "In-stack" concentration as interpreted for a flare means the exhaust concentration after combustion.
[45CSR§10-4.1; 13R-2334V – Section 5.1.7]

In response to any Acid Gas or Hydrocarbon Flaring Incident, the permittee shall take, as expeditiously as practicable, such interim and/or long-term corrective actions, if any, as are consistent with good engineering practice to minimize the likelihood of a recurrence of the Root Cause and all contributing causes of that Acid Gas or Hydrocarbon Flaring Incident.
[Consent Decree Civil No.3.03CV114010S V.IS.B and V.16; 13R-2334V – Section 5.1.15]

The permittee shall implement a program to investigate the cause of Hydrocarbon Flaring Incidents, take reasonable steps to correct the conditions that have caused or contributed to Hydrocarbon Flaring Incidents, and minimize Hydrocarbon Flaring Incidents. The permittee shall evaluate whether Hydrocarbon Flaring Incidents are due to Malfunctions by conducting a detailed analysis that sets forthe the Root Cause and all contributing causes of the Hydrocarbon Flaring Incident, to the extent determinable; and by conducting an analysis of the measures, if any, that are available to reduce the likelihood of a recurrence of an Hydrocarbon Flaring Incident resulting from the same Root Cause or contributing causes in the future. The analysis should evaluate the alternatives, if any, that are available, the probable effectiveness and the cost of the alternatives, and whether or not an outside consultant should be retained to assist in the analysis. Possible design, operation, and maintenance

changes shall be evaluated.

- "Hydrocarbon Flaring Incident' means the continuous or intermittent Hydrocarbon Flaring, except for Acid Gas andlor Sour Water Stripper Gas, at a Hydrocarbon Flaring Device that results in the emission of sulfur dioxide equal to, or in excess of five-hundred (500) pounds in any twenty-four (24) hour period; provided, however, that if five-hundred (500) pounds or more of sulfur dioxide have been emitted in a twenty-four (24) hour period and Flaring continues into subsequent, contiguous, non-overlapping twenty-four (24) hour period(s), each period of which results in emissions equal to, or in excess of five-hundred (500) pounds of sulfur dioxide, then only one Hydrocarbon Flaring Incident shall have occurred. Subsequent, contiguous, non-overlapping periods are measured from the initial commencement of Flaring within the Hydrocarbon Flaring Incident.
- "Hydrocarbon Flaring" means the combustion of refiner-generated gases, except for Acid Gas and/or Sour Water Stripper Gas in a Hydrocarbon Flaring Device.
- "Hydrocarbon Flaring Device" means a flare device used to control (through combustion) any excess volume of a refinery generated gas other than Acid Gas andlor Sour Water Stripper Gas.

[Consent Decree Civil No. 3.03CV114010S IV and V.16]

_X_ 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.)

Monitoring:

The permittee shall monitor the PM emissions by conducting visible emissions checks in accordance with Section 4.2.1. of this permit.
[13R-2334V – Section 5.2.1]

To determine compliance with the annual emission rate limits set forth in Section 5.1.1, the permittee may estimate emissions using 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.
[13R-2334V – Section 5.2.3]

The permittee shall meet all applicable monitoring requirements of 40 CFR§60.13 for MLDOX and OXIDIZER.
[NSPS, Subpart A; §60.13; 13R-2334 – Section 5.2.4]

Testing:

The permittee shall meet all applicable performance tests requirements of 40 CFR §60.8 for MLDOX and OXIDIZER.
[NSPS, Subpart A; §60.8; 13R-2334V – Section 5.3.2]

Recordkeeping:

To determine compliance with the loading emission limits set forth in Sections 5.1.1, the permittee shall keep a monthly record of the volume and type of each product/product type loaded at each truck loading station and marine barge loading station and whether or not the VOC emissions were controlled using the control device [OXIDIZER, or MLDOX]. AP-42 emission factors for flares and transportation and marketing of petroleum liquids (Chapter 5.2, 1/95) may be used to estimate emissions.
[13R-2334V – Section 5.4.1]

To determine compliance with the annual benzene emission limit set forth in Section 5.1.1., the permittee shall estimate the emissions using a material balances calculation utilizing the vapor weight of benzene present in petroleum liquids processed and transported at the facility. The following equation shall be to determine monthly and yearly emissions.
Benzene Emissions (tpm or tpy) = (Total VOCs (tpm or tpy» x (Actual Benzene Vapor Weight %)

Compliance with the yearly limit shall be based on a l2-month rolling total.
[13R-2334V – Section 5.4.2]

The permittee shall meet all applicable notification and record keeping requirements of §60.7 for OXIDIZER and MLDOX.
[NSPS, Subpart A; §60.7; 13R-2334V – Section 5.4.4]

Reporting:
The permittee shall meet all applicable reporting requirements of 40 CFR §60.19 for OXIDIZER and MLDOX.
[NSPS, Subpart A; §60.19; 13R-2334V – Section 5.5.3]

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**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
00A-04	MLDOX Barge Loading Thermal Oxidizer	NA

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

Marine loading Dock thermal oxidizer controls VOC emissions associated with the loading of gasoline and light crude oil to the barges.

Manufacturer:	**Model number:**	**Serial number:** N/A
Construction date: 2012	**Installation date:** 2012	**Modification date(s):** NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
59.0 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
59.0 MMBtu/hr	14,225 MMBtu/yr	3,200 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X_Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: 59.0 MMBtu/hr	**Type and Btu/hr rating of burners:** Low NO_x Burner 59.0 MMBtu/hr

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.
Natural Gas
50,100 cf/hr
438.88 MMcf/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.016%	N/A	1020

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Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.14	2.63
Nitrogen Oxides (NO_X)	0.03	0.48
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.003	0.05
Particulate Matter (PM_{10})	0.003	0.05
Total Particulate Matter (TSP)	0.003	0.05
Sulfur Dioxide (SO_2)	0.03	1.64
Volatile Organic Compounds (VOC)	12.80	6.18
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hexane	0.39	0.30
Benzene	0.12	0.03
Toluene	0.45	0.13
Xylene	0.45	0.14
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
CO_2	43.3	836.7
CH_4 (as CO_2e)	0.021	0.40
N_2O (as CO_2e)	0.07	1.33
CO_2e	43.36	838.47

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.).

Emission Factors for NO_x, and CO are obtained from EPA AP-42, Chapter 13.5 *Flares,*

and for PM from EPA AP-42, Chapter 1.4, *Natural Gas Combustion.* SO_2 emission factors are based on the expected sulfur content of the products combusted in the thermal oxidizer @ 0.5% S per lb crude oil.

VOC emissions from the thermal oxidizer are calculated using the Light Crude and Crude RVP 5.0 compostions.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

<u>Limitations and Standards:</u>
Emissions shall not exceed those listed in Section 5.1.1. Annual emission limits are based on a 12-month rolling basis.
[R13-2334V – Section 5.1.1]

The permitee shall not exceed the annual limits in the table in Section 5.1.2 that correspond to the emission limits established in requirement 5.1.1. Annual quantities are based on a 12-month rolling basis.
[R13-2334V – Section 5.1.2]

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.
[R13-2334V – Section 5.1.4]

The Main Source Gas Flare [F1/00A-01], the Truck Loading Oxidizer [OXIDIZER/00A-02], and the Marine Loading Thermal Oxidizer [MLDOX/00A-04] are subject to the requirements of 45CSR6 including but not limited to the following:

a. No person shall cause, suffer, allow or permit particulate matter to be discharged from any incinerator into the open air in excess of the quantity determined by the use of the formula in Section 5.1.6.
b. No person shall cause, suffer, allow or permit emission of smoke into the atmosphere from any incinerator which is twenty (20%) percent opacity or greater.
c. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.

[R13-2334V – Section 5.1.6]

The permittee shall no cause, suffer, allow or permit the emission into open air from any source operation an in-stack sulfur dioxide concentration exceeding 2000 ppm by volume from existing source operations. Note “In-stack” concentration as interpreted for a flare means the exhaust concentration after combustion.
[45CSR 10-4.1; R13-2334V – Section 5.1.7]

The permittee shall implement a program to investigate the cause of Acid Gas Flaring Incidents, take reasonable steps to correct the conditions that have caused or contributed to Acid Gas Flaring Incidents, and minimize Acid Gas Flaring Incidents. The permittee shall evaluate whether Acid Gas Flaring Incidents are due to Malfunctions by conducting a detailed analysis that sets forth the Root Cause and all contributing causes of the Acid Gas Flaring Incident, to the extent determinable; and by conducting an analysis of the measures, if any, that are available to reduce the likelihood of a recurrence of an Acid Gas Flaring Incident resulting from the same Root Cause or contributing causes in the future. The analysis should evaluate the alternatives, if any, that are available, the probable effectiveness and the cost of the alternatives, and whether or not an outside consultant should be retained to assist in the analysis. Possible design, operation, and maintenance changes shall be evaluated.

- "Acid Gas Flaring Incident' means the continuous or intermittent combustion of Acid Gas and/or Sour Water Stripper Gas that results in the emission of sulfur dioxide equal to, or in excess of five-hundred (500) pounds in any twenty-four (24) hour period; provided, however, that if five-hundred (500) pounds or more of sulfur dioxide have been emitted in a twenty four (24) hour period and Flaring continues into subsequent, contiguous, non overlapping twenty-four (24) hour period(s), each period of which results in emissions equal to, or in excess of five-hundred (500) pounds of sulfur dioxide, then only one AG Flaring Incident shall have occuried. Subsequent, contiguous, non-overlapping periods are measured from

the initial commencement of Flaring within the AG Flaring Incident. "Acid Gas" means any gas that contains hydrogen sulfide and is generated at a refinery by the regeneration of amine solution.

- "Acid Gas Flaring" means the combustion of Acid Gas and/or Sour Water Stripper Gas in an Acid Gas Flaring Device. "Acid Gas Flaring Device" shall mean any device at EWVI that is used for the purpose of combusting Acid Gas and/or Sour Water Stripper Gas, except facilities in which gases are combusted to produce sulfur or sulfuric acid. The Acid Gas Flaring Device currently in service at EWVI is OOA-O I.
- "Sour Water Stripper Gas" shall mean the gas produced by the process of stripping refinery sour water.
- "Root Cause" means the primary cause(s) of an AG Flaring Incident(s) andlor Hydrocarbon Flaring Incident(s) as detennined through a process of investigation.
- "Malfunction" means, as specified in 40 CFR Part 60.2, any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process eljuipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[Consent Decree Civil No. 3.03CV114010S IV and V,IS.A; 13R-2334V - 5.1.14]

In response to any Acid Gas or Hydrocarbon Flaring Incident, the permittee shall take, as expeditiously as practicable, such interim and/or long-term corrective actions, if any, as are consistent with good engineering practice to minimize the likelihood of a recurrence of the Root Cause and all contributing causes of that Acid Gas or Hydrocarbon Flaring Incident.

[Consent Decree Civil No.3.03CV114010S V.IS.B and V.16; 13R-2334V – 5.1.15]

The permittee shall implement a program to investigate the cause of Hydrocarbon Flaring Incidents, take reasonable steps to correct the conditions that have caused or contributed to Hydrocarbon Flaring Incidents, and minimize Hydrocarbon Flaring Incidents. The permittee shall evaluate whether Hydrocarbon Flaring Incidents are due to Malfunctions by conducting a detailed analysis that sets forthe the Root Cause and all contributing causes of the Hydrocarbon Flaring Incident, to the extent determinable; and by conducting an analysis of the measures, if any, that are available to reduce the likelihood of a recurrence of an Hydrocarbon Flaring Incident resulting from the same Root Cause or contributing causes in the future. The analysis should evaluate the alternatives, if any, that are available, the probable effectiveness and the cost of the alternatives, and whether or not an outside consultant should be retained to assist in the analysis. Possible design, operation, and maintenance changes shall be evaluated.

- "Hydrocarbon Flaring Incident' means the continuous or intermittent Hydrocarbon Flaring, except for Acid Gas and/or Sour Water Stripper Gas, at a Hydrocarbon Flaring Device that results in the emission of sulfur dioxide equal to, or in excess of five-hundred (500) pounds in any twenty-four (24) hour period; provided, however, that if five-hundred (500) pounds or more of sulfur dioxide have been emitted in a twenty-four (24) hour period and Flaring continues into subsequent, contiguous, non overlapping twenty-four (24) hour period(s), each period of which results in emissions equal to, or in excess of five-hundred (500) pounds of sulfur dioxide, then only one Hydrocarbon Flaring Incident shall have occurred. Subsequent, contiguous, non-overlapping periods are measured from the initial commencement of Flaring within the Hydrocarbon Flaring Incident.
- "Hydrocarbon Flaring" means the combustion of refiner-generated gases, except for Acid Gas and/or Sour Water Stripper Gas in a Hydrocarbon Flaring Device.
- "Hydrocarbon Flaring Device" means a flare device used to control (through combustion) any excess volume of a refinery generated gas other than Acid Gas and/or Sour Water Stripper Gas.

[Consent Decree Civil No. 3.03CV114010S IV and V.16]

__X__ 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.)

Monitoring:
The permittee shall monitor the PM emissions by conducting visible emissions checks in accordance with Section 4.2.1 of 13R-2334V.
[13R-2334V – 5.2.1]

To determine compliance with the annual emission rate limits set forth in Section 5.1.1, the permittee may estimate emissions using 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.
[13R-2334V – 5.2.3]

The pennittee shall meet all applicable monitoring requirements of 40 CFR *60.13 for MLDOX and OXIDIZER.
[NSPS, Subpart A; §60.13; 13R-2334V – 5.2.4]

Testing:
The permittee shall conduct an initial performance test of MLDOX to demonstrate compliance with the control efficiency provided in the Emissions Unit Table, Section 1.0 and shall establish operating parameters.
[13R-2334V – 5.3.1]

The permittee shall meet all applicable performance tests requirements of 40 CFR §60.8 for MLDOX and OXIDIZER.
[NSPS, Subpart A; §60.8; 13R-2334V – 5.3.2]

The permittee shall calculate an annual estimate of HAP emissions from gasoline and light crude oil from marine tank vessel loading operations. Emission estimates and emission factors shall be based on test data, or if test data is not available, shall be based on measurement or estimating techniques generally accepted in industry practice for operating conditions at the source.
[MACT, Subpart Y;63.560(a)(3)J; 13R-2334V – 5.3.4]

Recordkeeping:
To determine compliance with the loading emission limits set forth in Sections 5.1.1, the permittee shall keep a monthly record of the volume and type of each product/product type loaded at each truck loading station and marine barge loading station and whether or not the VOC emissions were controlled using the control device [OXIDIZER, or MLDOX]. AP-42 emission factors for flares and transportation and marketing of petroleum liquids (Chapter 5.2, 1/95) may be used to estimate emissions.
[13R-2334V – 5.4.1]

To determine compliance with the annual benzene emission limit set forth in Section 5.1.1., the permittee shall estimate the emissions using a material balances calculation utilizing the vapor weight of benzene present in petroleum liquids processed and transported at the facility. The following equation shall be to determine monthly and yearly emissions.
Benzene Emissions (tpm or tpy) = (Total VOCs (tpm or tpy» x (Actual Benzene Vapor Weight %)
Compliance with the yearly limit shall be based on a l2-month rolling total.
[13R-2334V – 5.4.2]

The permittee shall meet all applicable notification and record keeping requirements of §60.7 for OXIDIZER and MLDOX.
[NSPS, Subpart A; §60.7; 13R-2334V – 5.4.4]

The permittee shall retain records of the emissions estimates determined in §63.565(l) and requirement 5.I.x of this permit and their actual throughputs by commodity for gasoline and light crude oil, for 5 years.
[MACT, Subpart Y; 63.S60(a)(3); 13R-2334V – 5.4.6]

Reporting:
The permittee shall comply with the reporting requirements of 40 CFR Part 60, Subpart J.
[40C.F.R.§60.107 and Consent Decree Civil No. 3.03CV114010S V.14; 13R-2334V – 5.5.1]

The permittee shall meet all applicable reporting requirements of 40 CFR §60.19 for OXIDIZER and MLDOX.
[NSPS, Subpart A; §60.19; 13R-2334V – 5.5.3]

Are you in compliance with all applicable requirements for this emission unit? __X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
00A-05	NH3OX – Ammonia Destruction Thermal Oxidizer	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Thermal Oxidizer associated with the Ammonia Destruction Unit (ADU)

Manufacturer:	**Model number:**	**Serial number:**
Process Combustion Corporation (PCC)	Custom Designed	Custom Designed
Construction date:	**Installation date:**	**Modification date(s):**
2015	2015	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
6.60 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
6.60 MMBtu/hr	57,821 MMBtu/yr	Continuous operation

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __X__Yes ___ No	**If yes, is it?** Direct Fired
Maximum design heat input and/or maximum horsepower rating: 6.60 MMBtu/hr	**Type and Btu/hr rating of burners:** Low NOx Burner 6.60 MMBtu/hr

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.
Natural Gas
6.60 MMBtu/hr
57,821 MMBtu/hr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	0.016%	N/A	1,020 Btu/cf

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	1.82	7.96
Nitrogen Oxides (NO_X)	0.11	0.50
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.05	0.22
Particulate Matter (PM_{10})	0.05	0.22
Total Particulate Matter (TSP)	0.05	0.22
Sulfur Dioxide (SO_2)	0.01	0.02
Volatile Organic Compounds (VOC)	0.23	1.00
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
CO_2	776.55	3,401.33
CH_4 (as CO_2e)	0.37	1.63
N_2O (as CO_2e)	1.23	5.40
CO_2e	778.16	3408.33

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.).

Emission Factors for NO_x, and CO are obtained from EPA AP-42, Chapter 13.5 *Flares*, and for PM from EPA AP-42, Chapter 1.4, *Natural Gas Combustion.* SO_2 emission factors are based on the expected sulfur content of the products combusted in the thermal oxidizer @ 0.5% S per lb crude oil. VOC emissions from the thermal oxidizer are calculated using the Light Crude and Crude RVP 5.0 compostions.

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.

Potentially applicable requirements:

State Regulations
1. 45 C.S.R. 04 To Prevent and Control the Discharge of Air Pollutants in the Open Air Which Causes or Contributes to an Objectionable Odor or Odors
2. 45 C.S.R. 11 Prevention of Air Pollution Emergency Episodes
3. 45 C.S.R. 13 Permits for Construction, Modification, Relocation & Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits & Procedures for Evaluation
4. 45 C.S.R. 16 Standards of Performance for New Stationary Sources Pursuant to 40 CFR Part 60
5. 45 C.S.R. 20 Good Engineering Practice as Applies to Stack Heights
6. 45 C.S.R. 22 Air Quality Management Fee Program
7. 45 C.S.R. 30 Requirements for Operating Permits

Federal Regulations
1. 40 CFR Part 60 Subpart A Standards of Performance for New Stationary Sources. General Provisions
2. 40 CFR Part 60 Subpart GGG-a Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006
3. 40 CFR Part 60 Subpart QQQ Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems
4. 40 CFR Part 60 Subpart J-a Standards of Performance for Petroluem Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007.

____ 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.)

Monitoring:
The permittee will monitor the PM emissions by conducting visible emissions checks in accordance with 40 CFR 60 Appendix A, Method 9. The permittee shall use a CPMS capable of measuring temperature in the firebox or immediately downstream of the firebox. The permittee will comply with the monitoring requirements of 40 CFR 60.107a, unless the exemption of 40 CFR 60.107a(b) can be met. This will exempt the permittee from the H2S monitoring requirements of 40 CFR 60 Subpart J-a.
Recordkeeping:
The permittee will keep a monthly record of the volume controlled using the ammonia destruction thermal oxidizer. A control efficiency of 99.9% will be used for emissions estimations. The permittee will estimate annual emissions for the criteria pollutants. The permittee will comply with the applicable recordkeeping requirements of 40 CFR 60.108a.
Reporting:
The permittee will comply with the reporting requirements of 40 CFR 60.19 and 60.107.
Testing:
The permittee will conduct all applicable performance tests for NH3OX, per 40 CFR 60.8 and 60.104a.

Are you in compliance with all applicable requirements for this emission unit? Yes

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
00B-01	WWT	Carbon Bed Adsorber

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Wastewater Treatment Plant

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1972	MM/DD/1972	MM/DD/1997

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
600 gpm

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
36,000 gal/hr	315,360,000 gal/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	3.23	14.15
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.).

Emissions estimations were based on calculations from the Foster Wheeler Report issued in 1997. That report was updated in 2000 and emissions were prorated based on the installation of roofs on the north and south API units.

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.

Applicable Rule – 40 CFR 60
Standards – 40 CFR 60.692-1, 60.692-2, 60.692-3, 60.692-4, 60.692-5, 60.692-6, 60.692-7, 60.693-1, 60.693-2, 60.694

__X__ 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.)

40 CFR Part 60 Subpart QQQ
Monitoring:
(a) Each owner or operator subject to the provisions of this subpart shall install, calibrate, maintain, and operate according to manufacturer's specifications the following equipment, unless alternative monitoring procedures or requirements are approved for that facility by the Administrator.

(1) Where a thermal incinerator is used for VOC emission reduction, a temperature monitoring device equipped with a continuous recorder shall be used to measure the temperature of the gas stream in the combustion zone of the incinerator.
(2) The temperature monitoring device shall have an accuracy of ±1 percent of the temperature being measured, expressed in °C, or ±0.5°C (0.9 °F), whichever is greater.
(3) Where a catalytic incinerator is used for VOC emission reduction, temperature monitoring devices, each equipped with a continuous recorder shall be used to measure the temperature in the gas stream immediately before and after the catalyst bed of the incinerator. The temperature monitoring devices shall have an accuracy of ±1 percent of the temperature being measured, expressed in °C, or ±0.5 °C (0.9 °F), whichever is greater.
(4) Where a carbon adsorber is used for VOC emissions reduction, a monitoring device that continuously indicates and records the VOC concentration level or reading of organics in the exhaust gases of the control device outlet gas stream or inlet and outlet gas stream shall be used.

    (i) For a carbon adsorption system that regenerates the carbon bed directly onsite, a monitoring device that continuously indicates and records the volatile organic compound concentration level or reading of organics in the exhaust gases of the control device outlet gas stream or inlet and outlet gas stream shall be used.
    (ii) For a carbon adsorption system that does not regenerate the carbon bed directly onsite in the control device (e.g., a carbon canister), the concentration level of the organic compounds in the exhaust vent stream from the carbon adsorption system shall be monitored on a regular schedule, and the existing carbon shall be replaced with fresh carbon immediately when carbon breakthrough is indicated. The device shall be monitored on a daily basis or at intervals no greater than 20 percent of the design carbon replacement interval, whichever is greater. As an alternative to conducting this monitoring, an owner or operator may replace the carbon in the carbon adsorption system with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval that is determined by the maximum design flow rate and organic concentration in the gas stream vented to the carbon adsorption system.

(5) Where a flare is used for VOC emission reduction, the owner or operator shall comply with the monitoring requirements of 40 CFR 60.18(f)(2).

(b) Where a VOC recovery device other than a carbon adsorber is used to meet the requirements specified in §60.692-5(a), the owner or operator shall provide to the Administrator information describing the operation of the control device and the process parameter(s) that would indicate proper operation and maintenance of the device. The Administrator may request further information and will specify appropriate monitoring procedures or requirements.

(c) An alternative operational or process parameter may be monitored if it can be demonstrated that another parameter will ensure that the control device is operated in conformance with these standards and the control device's design specifications.
[40 CFR 60.695]

Testing:
(a) Before using any equipment installed in compliance with the requirements of § 60.692-2, § 60.692-3, § 60.692-4, § 60.692-5, or § 60.693, EWVI shall inspect such equipment for indications of potential emissions, defects, or other problems that may cause the requirements of this subpart not to be met. Points of inspection shall include, but are not limited to, seals, flanges, joints, gaskets, hatches, caps, and plugs.
(b) The owner or operator of each source that is equipped with a closed vent system and control device as required in § 60.692-5 (other than a flare) is exempt from § 60.8 of the General Provisions and shall use Method 21 to measure the emission concentrations, using 500 ppm as the no detectable emission limit. The instrument shall be calibrated each day before using.
The calibration gases shall be:
(1) Zero air (less than 10 ppm of hydrocarbon in air), and
(2) A mixture of either methane or n-hexane and air at a concentration of approximately, but less than, 10,000 ppm methane or n-hexane.
(c) EWVI shall conduct a performance test initially, and at other times as requested by the Administrator, using the test methods and procedures in § 60.18(f) to determine compliance of flares.
(d) After installing the control equipment required to meet § 60.693-2(a) or whenever sources that have ceased to treat refinery wastewater for a period of 1 year or more are placed back into service, EWVI shall determine compliance with the standards in § 60.693-2(a) as follows:
(1) The maximum gap widths and maximum gap areas between the primary seal and the separator wall and between the secondary seal and the separator wall shall be determined individually within 60 calendar days of the initial installation of the floating roof and introduction of refinery wastewater or 60 calendar days after the equipment is placed back into service using the following procedure when the separator is filled to the design operating level and when the roof is floating off the roof supports.
(i) Measure seal gaps around the entire perimeter of the separator in each place where a 0.32 cm (0.125 in.) diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the separator and measure the gap width and perimetrical distance of each such location.
(ii) The total surface area of each gap described in (d)(1)(i) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the wall to the seal and multiplying each such width by its respective perimetrical 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 perimeter of the separator basin and compare each to the maximum gap area as specified in § 60.693-2.
(2) The gap widths and total gap area shall be determined using the procedure in paragraph (d)(1) of this section according to the following frequency:
(i) For primary seals, once every 5 years.
(ii) For secondary seals, once every year.
[40 CFR 60.696]

Recordkeeping:
(a) EWVI shall comply with the record keeping requirements of this section. All records shall be retained for a period of 2 years after being recorded unless otherwise noted.
(b)
(1) For individual drain systems subject to § 60.692-2, the location, date, and corrective action shall be recorded for each drain when the water seal is dry or otherwise breached, when a drain cap or plug is missing or improperly installed, or other problem is identified that could result in VOC emissions, as determined during the initial and periodic visual or physical inspection.
(2) For junction boxes subject to § 60.692-2, the location, date, and corrective action shall be recorded for inspections required by § 60.692-2(b) when a broken seal, gap, or other problem is identified that could result in VOC emissions.
(3) For sewer lines subject to §§ 60.692-2 and 60.693-1(e), the location, date, and corrective action shall be recorded for inspections required by §§ 60.692-2(c) and 60.693-1(e) when a problem is identified that could result in VOC emissions.
(c) For oil-water separators subject to § 60.692-3, the location, date, and corrective action shall be recorded for inspections required by § 60.692-3(a) when a problem is identified that could result in VOC emissions.

(d) For closed vent systems subject to § 60.692-5 and completely closed drain systems subject to § 60.693-1, the location, date, and corrective action shall be recorded for inspections required by § 60.692-5(e) during which detectable emissions are measured or a problem is identified that could result in VOC emissions.

(e)

(1) If an emission point cannot be repaired or corrected without a process unit shutdown, the expected date of a successful repair shall be recorded.

(2) The reason for the delay as specified in § 60.692-6 shall be recorded if an emission point or equipment problem is not repaired or corrected in the specified amount of time.

(3) The signature of the owner or operator (or designee) whose decision it was that repair could not be effected without refinery or process shutdown shall be recorded.

(4) The date of successful repair or corrective action shall be recorded.

(f)

(1) A copy of the design specifications for all equipment used to comply with the provisions of this subpart shall be kept for the life of the source in a readily accessible location.

(2) The following information pertaining to the design specifications shall be kept.

(i) Detailed schematics, and piping and instrumentation diagrams.

(ii) The dates and descriptions of any changes in the design specifications.

(3) The following information pertaining to the operation and maintenance of closed drain systems and closed vent systems shall be kept in a readily accessible location.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions shall be kept for the life of the facility. This documentation is to include a general description of the gas streams that enter the control device, including flow and volatile organic compound content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816°C (1,500°F) is used to meet the 95-percent requirement, documentation that those conditions exist is sufficient to meet the requirements of this paragraph.

(ii) For a carbon adsorption system that does not regenerate the carbon bed directly onsite in the control device such as a carbon canister, the design analysis shall consider the vent stream composition, constituent concentrations, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed, and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule.

(iii) Periods when the closed vent systems and control devices required in § 60.692 are not operated as designed, including periods when a flare pilot does not have a flame shall be recorded and kept for 2 years after the information is recorded.

(iv) Dates of startup and shutdown of the closed vent system and control devices required in § 60.692 shall be recorded and kept for 2 years after the information is recorded.

(v) The dates of each measurement of detectable emissions required in §§ 60.692, 60.693, or 60.692-5 shall be recorded and kept for 2 years after the information is recorded.

(vi) The background level measured during each detectable emissions measurement shall be recorded and kept for 2 years after the information is recorded.

(vii) The maximum instrument reading measured during each detectable emission measurement shall be recorded and kept for 2 years after the information is recorded.

(4) Each owner or operator of an affected facility that uses a thermal incinerator shall maintain continuous records of the temperature of the gas stream in the combustion zone of the incinerator and records of all 3-hour periods of operation during which the average temperature of the gas stream in the combustion zone is more than 28 °C (50 °F) below the design combustion zone temperature, and shall keep such records for 2 years after the information is recorded.

(5) Each owner or operator of an affected facility that uses a catalytic incinerator shall maintain continuous records of the temperature of the gas stream both upstream and downstream of the catalyst bed of the incinerator, records of all 3- hour periods of operation during which the average temperature measured before the catalyst bed is more than 28°C (50 °F) below the design gas stream temperature, and records of all 3-hour periods during which the average temperature difference across the catalyst bed is less than 80 percent of the design temperature difference, and shall keep such records for 2 years after the information is recorded.

(i) Each owner or operator of an affected facility that uses a carbon adsorber shall maintain continuous records of the VOC concentration level or reading of organics of the control device outlet gas stream or inlet and outlet gas stream and records of all 3-hour periods of operation

during which the average VOC concentration level or reading of organics in the exhaust gases, or inlet and outlet gas stream, is more than 20 percent greater than the design exhaust gas concentration level, and shall keep such records for 2 years after the information is recorded.

(A) Each owner or operator of an affected facility that uses a carbon adsorber which is regenerated directly onsite shall maintain continuous records of the volatile organic compound concentration level or reading of organics of the control device outlet gas stream or inlet and outlet gas stream and records of all 3-hour periods of operation during which the average volatile organic compound concentration level or reading of organics in the exhaust gases, or inlet and outlet gas stream, is more than 20 percent greater than the design exhaust gas concentration level, and shall keep such records for 2 years after the information is recorded.

(B) If a carbon adsorber that is not regenerated directly onsite in the control device is used, then the owner or operator shall maintain records of dates and times when the control device is monitored, when breakthrough is measured, and shall record the date and time that the existing carbon in the control device is replaced with fresh carbon.

(g) If an owner or operator elects to install a tightly sealed cap or plug over a drain that is out of active service, the owner or operator shall keep for the life of a facility in a readily accessible location, plans or specifications which indicate the location of such drains.

(h) For stormwater sewer systems subject to the exclusion in § 60.692-1(d)(1), an owner or operator shall keep for the life of the facility in a readily accessible location, plans or specifications which demonstrate that no wastewater from any process units or equipment is directly discharged to the stormwater sewer system.

(i) For ancillary equipment subject to the exclusion in § 60.692-1(d)(2), an owner or operator shall keep for the life of a facility in a readily accessible location, plans or specifications which demonstrate that the ancillary equipment does not come in contact with or store oily wastewater.

(j) For non-contact cooling water systems subject to the exclusion in § 60.692-1(d)(3), an owner or operator shall keep for the life of the facility in a readily accessible location, plans or specifications which demonstrate that the cooling water does not contact hydrocarbons or oily wastewater and is not recirculated through a cooling tower.

(k) For oil-water separators subject to § 60.693-2, the location, date, and corrective action shall be recorded for inspections required by §§ 60.693-2(a)(1)(iii)(A) and (B), and shall be maintained for the time period specified in paragraphs (k)(1) and (2) of this section.

(1) For inspections required by § 60.693-2(a)(1)(iii)(A), ten years after the information is recorded.
(2) For inspections required by § 60.693-2(a)(1)(iii)(B), two years after the information is recorded.

[40 CFR 60.697]

Reporting:

(a) An owner or operator electing to comply with the provisions of § 60.693 shall notify the Administrator of the alternative standard selected in the report required in § 60.7.

(b)

(1) Each owner or operator of a facility subject to this subpart shall submit to the Administrator within 60 days after initial startup a certification that the equipment necessary to comply with these standards has been installed and that the required initial inspections or tests of process drains, sewer lines, junction boxes, oil-water separators, and closed vent systems and control devices have been carried out in accordance with these standards. Thereafter, the owner or operator shall submit to the Administrator semiannually a certification that all of the required inspections have been carried out in accordance with these standards.
(2) Each owner or operator of an affected facility that uses a flare shall submit to the Administrator within 60 days after initial startup, as required under § 60.8(a), a report of the results of the performance test required in § 60.696(c).

(c) A report that summarizes all inspections when a water seal was dry or otherwise breached, when a drain cap or plug was missing or improperly installed, or when cracks, gaps, or other problems were identified that could result in VOC emissions, including information about the repairs or corrective action taken, shall be submitted initially and semiannually thereafter to the Administrator.

(d) As applicable, a report shall be submitted semiannually to the Administrator that indicates:

(1) Each 3-hour period of operation during which the average temperature of the gas stream in the combustion zone of a thermal incinerator, as measured by the temperature monitoring device, is more than 28 °C (50 °F) below the design combustion zone temperature,
(2) Each 3-hour period of operation during which the average temperature of the gas stream immediately before the catalyst bed of a catalytic incinerator, as measured by the temperature monitoring device, is more than 28 °C (50°F) below the design gas stream temperature, and any 3-hour period during which the average temperature difference across the catalyst bed (i.e., the difference between the temperatures of the gas stream immediately before and after the catalyst bed), as measured by the temperature monitoring device, is less than 80 percent of the design temperature difference, or,

(3) Each 3-hour period of operation during which the average VOC concentration level or reading of organics in the exhaust gases from a carbon adsorber is more than 20 percent greater than the design exhaust gas concentration level or reading.

(i) Each 3-hour period of operation during which the average volatile organic compound concentration level or reading of organics in the exhaust gases from a carbon adsorber which is regenerated directly onsite is more than 20 percent greater than the design exhaust gas concentration level or reading.

(ii) Each occurrence when the carbon in a carbon adsorber system that is not regenerated directly onsite in the control device is not replaced at the predetermined interval specified in § 60.695(a)(3)(ii).

(e) If compliance with the provisions of this subpart is delayed pursuant to § 60.692-7, the notification required under 40 CFR 60.7(a)(4) shall include the estimated date of the next scheduled refinery or process unit shutdown after the date of notification and the reason why compliance with the standards is technically impossible without a refinery or process unit shutdown.

[40 CFR 60.698]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
00B-02	EQLEAKS	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Equipment Leak Fugitives

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
N/A	N/A	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
N/A

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
N/A	N/A	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	20.05	73.20
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	0.80	2.93
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.).

Emission factors obtained from EPA documents 453/R-95-017, Table 2-6, Refinery Screening Ranges Emission Factors.

LDAR Monitoring Report from Environmental Analytics, Inc. 2005.

Benzene concentrations used in calculations taken from the EPAs Speciate 3.0 program (Gasoline)

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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. Applicable Requirement – 40 CFR 63 Limitations – Section 8.1.1 – R13-2334M Applicable Requirement – 45 CSR 34 Limitations – Section 8.1.1 – R13-2334M Applicable Requirement – 45 CSR 13 Limitations – Section 8.1.1 – R13-2334M
__X__ 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.) Monitoring: N/A Testing: N/A Recordkeeping: N/A Reporting: N/A
Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
00D-01	Dehy Htr	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Dehydration Heater; natural gas

Manufacturer:	**Model number:**	**Serial number:**
Westfield	Not Available	91-10625
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1991	MM/DD/1991	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
0.59 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
578 cf/hr	5.07 MMcf/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X__Yes ___ No	**If yes, is it?** ___ Indirect Fired _X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 0.59 MMBtu/hr	**Type and Btu/hr rating of burners:** Traditional NOx Burner 0.59 MMBtu/hr

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.
Natural Gas
Max Hourly Usage = 578 cf/hr
Max Annual Usage = 5.07 MMcf/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	20 gr/100 cf	N/A	1,020 Btu/cf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.06	0.21
Nitrogen Oxides (NO_X)	0.03	0.13
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.01	0.02
Particulate Matter (PM_{10})	0.01	0.02
Total Particulate Matter (TSP)	0.01	0.02
Sulfur Dioxide (SO_2)	0.0004	0.002
Volatile Organic Compounds (VOC)	0.004	0.01
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.).

Emission factors obtained from EPA AP-42, Chapter 1.4, Natural Gas Combustion, Supplement D, July 1998.

*For the purposes of Title V Permitting, it is assumed that $PM_{2.5}$=PM_{10}=TSP.

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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. N/A
__X__ 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.) N/A
Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
00D-02	Still	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Glycol Dehydration Still

Manufacturer:	**Model number:**	**Serial number:**
Westfield	Not Available	091-005
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1991	MM/DD/1991	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
N/A

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
480 gal/hr	4,204,800 gal/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	0.19	0.70
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	0.05	0.20
Toluene	.11	0.40
Xylenes	0.03	0.10
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.).

The still vent emissions were estimated using the mass balance information below.

VOC from Rich Glycol = VOC from Lean Glycol + VOC to the still vent
Based on a sampling event:
VOC from Rich Glycol = 0.022%
VOC from Lean Glycol = 0.018%
Flow Rate (gpm) = 8
Glycol Density (lbs/gal) = 8.32

HAPs were estimated using a mass balance.

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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. N/A
__X__ 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.) N/A
Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
00P-01	FWPUMP1	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Diesel Firewater Pump at River Dock

Manufacturer:	**Model number:**	**Serial number:**
Clarke	JW6H-UF50	RG6081H1711846081HF001
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2006	MM/DD/2006	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
350 hp

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
17 gal/hr	8,500 gal/yr	500 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X__Yes ___ No	**If yes, is it?** ___ Indirect Fired _X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 350 hp	**Type and Btu/hr rating of burners:** N/A

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.
Diesel
Max Hourly Usage = 2.45 MMBtu/hr
Max Annual Usage = 1,225MMBtu/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Diesel	15 ppm	N/A	138,700 BTU/gal

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	2.34	0.58
Nitrogen Oxides (NO_X)	10.85	2.71
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.77	0.19
Particulate Matter (PM_{10})	0.77	0.19
Total Particulate Matter (TSP)	0.77	0.19
Sulfur Dioxide (SO_2)	2.34	0.58
Volatile Organic Compounds (VOC)	0.88	0.22
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	0.002	0.001
Toluene	0.001	0.0003
Xylenes	0.001	0.0002
1,3-Butadiene	0.0001	0.00002
Formaldehyde	0.003	0.001
Acetaldehyde	0.002	0.0005
Acrolein	0.0002	0.0001
Naphthalene	0.0002	0.0001
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.).

Emission factors for criteria pollutants are from AP-42, Table 3.3-1 "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines".

Emission factors for HAPs are from AP-42, Table 3.3-2 "Speciated Organic Compound Emission Factors for Uncontrolled Diesel Engines", using a brake-specific fuel consumption of 7,000 Btu/hp-hr from AP-42, Table 3.3-1.

*For the purposes of Title V Permitting, it is assumed that $PM_{2.5}$=PM_{10}=TSP.

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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. N/A
__X__ 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.) N/A
Are you in compliance with all applicable requirements for this emission unit? ___Yes ___No _X__N/A If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
00P-02	FWPUMP2	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Diesel Firewater Pump at Boiler House

Manufacturer:	**Model number:**	**Serial number:**
Clark	DDFP-16VT	6VA142706
Construction date:	**Installation date:**	**Modification date(s):**
08/1993	08/1993	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
350 hp

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
17 gal/hr	8,500 gal/yr	500 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X__Yes ___ No	**If yes, is it?** ___ Indirect Fired _X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 350 hp	**Type and Btu/hr rating of burners:** N/A

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.
Diesel
Max Hourly Usage = 2.45 MMBtu/hr
Max Annual Usage = 1,225MMBtu/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Diesel	15 ppm	N/A	138,700 BTU/gal

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	2.34	0.58
Nitrogen Oxides (NO_X)	10.85	2.71
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.77	0.19
Particulate Matter (PM_{10})	0.77	0.19
Total Particulate Matter (TSP)	0.77	0.19
Sulfur Dioxide (SO_2)	2.34	0.58
Volatile Organic Compounds (VOC)	0.88	0.22
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Benzene	0.002	0.001
Toluene	0.001	0.0003
Xylenes	0.001	0.0002
1,3-Butadiene	0.0001	0.00002
Formaldehyde	0.003	0.001
Acetaldehyde	0.002	0.0005
Acrolein	0.0002	0.0001
Naphthalene	0.0002	0.0001
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.).

Emission factors for criteria pollutants are from AP-42, Table 3.3-1 "Emission Factors for Uncontrolled Gasoline and Diesel Industrial Engines".

Emission factors for HAPs are from AP-42, Table 3.3-2 "Speciated Organic Compound Emission Factors for Uncontrolled Diesel Engines", using a brake-specific fuel consumption of 7,000 Btu/hp-hr from AP-42, Table 3.3-1.

*For the purposes of Title V Permitting, it is assumed that $PM_{2.5}$=PM_{10}=TSP.

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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. N/A
__X__ 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.) N/A
Are you in compliance with all applicable requirements for this emission unit? ___Yes ___No _X__N/A If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4000	TK-4000	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
External floating roof; crude oil; mechanical shoe

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1992	MM/DD/1992	2012

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
2,310,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	N/A	See Section 2.0
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2, 7.1.5 – Permit R13-2334V
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

_X___ 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.)

<u>Monitoring:</u>
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director.
[Permit R13-2334V – Section 7.2.1]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets,

slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed.
If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7

days prior to the refilling.
(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334V - 7.2.2.]

Testing:

N/A

Recordkeeping:

To determine compliance with VOC emission limits, EWVI 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 R13-2334V - 7.3.1.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

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

[45CSR13 - Permit R13-2334V - 7.3.2.; 45CSR§30-5.1.c.]

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

a) After installing control equipment in accordance with § 60.1l2b(a)(l) (fixed roof and internal floating root), 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 * 60.112b(a)(1) and * 60.113b(a)(l). This report shall be an attachment to the notification required by § 60.7(a)(3).
   (2) Keep a record of each inspection perfornled as required by § 60.113b (a)(l), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in * 60.113b(a)(2) are detected during the annual visual inspection required by * 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in * 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days ofthe inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of * 61.l12b(a)(l) or § 60.113b(a)(3) and list each repair made.

b) After installing control equipment in accordance with * 61.112b(a)(2) (external floating root), 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 § 60.112b(a)(2) and § 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by * 60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by * 60. l13b(b)(l), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.1l3b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by * 60.113b(b). Each record shall identify the storage vessel in which the measurement was perfonned and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.113b (b)(2) and (b)(3).

[NSPS, Subpart Kb; 40 CFR 60.115b and 45CSR 16-2.1; Permit R13-2334V – Section 7.3.4]

(a) The owner or operator shall keep copies of all records required by 40 C.F.R. 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 C.F.R. § 60.l10b(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 lSI 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 m' 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 m' 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 refmed 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 specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure detelmined 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 cutofffor controls as defined in 40 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 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 C.F .R. § 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.

[NSPS, Subpart Kb; 40 C.F.R. § 60.116b and 45CSR§16-2.1; Permit R13-2334V – Section 7.3.5]

Reporting:

N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4001	TK-4001	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
External floating roof; crude oil; mechanical shoe

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1973	MM/DD/1973	2012

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
2,310,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	N/A	See Section 2.0
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2 – Permit R13-2334V
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

_X__ 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.)

Monitoring:
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director.
[Permit R13-2334V – Section 7.2.1]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets,

slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed.
If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7

days prior to the refilling.
(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334V - 7.2.2.]

Testing:

N/A

Recordkeeping:

To determine compliance with VOC emission limits, EWVI 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 R13-2334V - 7.3.1.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

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

[45CSR13 - Permit R13-2334V - 7.3.2.; 45CSR§30-5.1.c.]

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

a) After installing control equipment in accordance with § 60.1l2b(a)(l) (fixed roof and internal floating root), 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 * 60.112b(a)(1) and * 60.113b(a)(l). This report shall be an attachment to the notification required by § 60.7(a)(3).
   (2) Keep a record of each inspection perfornled as required by § 60.113b (a)(l), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in * 60.113b(a)(2) are detected during the annual visual inspection required by * 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in * 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days ofthe inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of * 61.l12b(a)(l) or § 60.113b(a)(3) and list each repair made.

b) After installing control equipment in accordance with * 61.112b(a)(2) (external floating root), 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 § 60.112b(a)(2) and § 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by * 60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by * 60. l13b(b)(l), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.1l3b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by * 60.113b(b). Each record shall identify the storage vessel in which the measurement was perfonned and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.113b (b)(2) and (b)(3).

[NSPS, Subpart Kb; 40 CFR 60.115b and 45CSR 16-2.1; Permit R13-2334V – Section 7.3.4]

(a) The owner or operator shall keep copies of all records required by 40 C.F.R. 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 C.F.R. § 60.l10b(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 lSI 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 m' 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 m' 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 refmed 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 specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure detelmined 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 cutofffor controls as defined in 40 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 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 C.F .R. § 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.

[NSPS, Subpart Kb; 40 C.F.R. § 60.116b and 45CSR§16-2.1; Permit R13-2334V – Section 7.3.5]

Reporting:

N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4002	TK-4002	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
External floating roof; crude oil; mechanical shoe

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	1970
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1970	MM/DD/1970	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
2,310,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes __X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2, 7.1.6 – R13-2334M
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director:

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, EWVI may elect to:

1. cover an external floating roof tank with a fixed roof mounted on the tank above the external floating roof, or

2. 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. EWVI 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 - Permit R13-2334 - 7.1.6.]**

[45CSR13 - Permit R13-2334 - 7.2.1.]

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 C.F.R. §§ 63.119 through 63.123 other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 C.F.R. § 63.150.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4003	TK-4003	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
External floating roof; heavy products or kerosene; mechanical shoe

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1970	MM/DD/1970	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
2,310,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	See Section 2.0

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2, 7.1.6 – R13-2334M
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director:

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, EWVI may elect to:

1. cover an external floating roof tank with a fixed roof mounted on the tank above the external floating roof, or

2. 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. EWVI 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 - Permit R13-2334 - 7.1.6.]**

[45CSR13 - Permit R13-2334 - 7.2.1.]

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 C.F.R. §§ 63.119 through 63.123 other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 C.F.R. § 63.150.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4004	TK-4004	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
External floating roof; gasoline; mechanical shoe

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD1971	2013

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,050,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

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Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	N/A	See Section 2.0
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2, 7.1.4 – Permit R13-2334V
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

_X_ 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.)

<u>Monitoring:</u>
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director.
[Permit R13-2334V – Section 7.2.1]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets,

slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed.
If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7

days prior to the refilling.
(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334V - 7.2.2.]

Testing:

N/A

Recordkeeping:

To determine compliance with VOC emission limits, EWVI 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 R13-2334V - 7.3.1.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

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

[45CSR13 - Permit R13-2334V - 7.3.2.; 45CSR§30-5.1.c.]

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

a) After installing control equipment in accordance with § 60.1l2b(a)(l) (fixed roof and internal floating root), 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 * 60.112b(a)(1) and * 60.113b(a)(l). This report shall be an attachment to the notification required by § 60.7(a)(3).
   (2) Keep a record of each inspection perfornled as required by § 60.113b (a)(l), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in * 60.113b(a)(2) are detected during the annual visual inspection required by * 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in * 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days ofthe inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of * 61.l12b(a)(l) or § 60.113b(a)(3) and list each repair made.

b) After installing control equipment in accordance with * 61.112b(a)(2) (external floating root), 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 § 60.112b(a)(2) and § 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by * 60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by * 60. l13b(b)(l), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.1l3b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by * 60.113b(b). Each record shall identify the storage vessel in which the measurement was perfonned and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.113b (b)(2) and (b)(3).

[NSPS, Subpart Kb; 40 CFR 60.115b and 45CSR 16-2.1; Permit R13-2334V – Section 7.3.4]

(a) The owner or operator shall keep copies of all records required by 40 C.F.R. 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 C.F.R. § 60.l10b(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 lSI 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 m' 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 m' 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 refmed 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 specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure detelmined 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 cutofffor controls as defined in 40 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 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 C.F .R. § 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.

[NSPS, Subpart Kb; 40 C.F.R. § 60.116b and 45CSR§16-2.1; Permit R13-2334V – Section 7.3.5]

Reporting:

N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4005	TK-4005	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
External floating roof; gasoline; mechanical shoe

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,050,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.4, 7.1.5 – R13-2334M
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – Section 7.1.5 – R13-2334M
Applicable Requirement – 40 CFR 63
Limitations – Section 7.1.5 – R13-2334M

__X__ 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.)

Monitoring:
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director:

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, EWVI may elect to:

1. cover an external floating roof tank with a fixed roof mounted on the tank above the external floating roof, or

2. 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. EWVI 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 - Permit R13-2334 - 7.1.4.]**

[45CSR13 - Permit R13-2334 - 7.2.1.]

Except as provided in 40 C.F.R. § 63.120(b)(7), EWVI shall determine the gap areas and maximum gap widths between the primary seal and the wall of the storage vessel, and the secondary seal and the wall of the storage vessel according to the frequency specified in paragraphs (i) through (iii) below. EWVI shall notify the Administrator in writing 30 calendar days in advance of any required gap measurements to afford the Administrator the opportunity to have an observer present.

(i) For an external floating roof vessel equipped with primary and secondary seals, measurements of gaps

between the vessel wall and the primary seal shall be performed during the hydrostatic testing of the vessel or by the compliance date specified in 40 C.F.R. § 63.100 of subpart F, whichever occurs last, and at least once every 5 years thereafter.

(ii) For an external floating roof vessel equipped with a liquid-mounted or metallic shoe primary seal and without a secondary seal as provided for in 40 C.F.R. § 63.119(c)(1)(iv) of subpart G, measurements of gaps between the vessel wall and the primary seal shall be performed by the compliance date specified in 40 C.F.R. § 63.100 of subpart F and at least once per year thereafter, until a secondary seal is installed. When a secondary seal is installed above the primary seal, measurements of gaps between the vessel wall and both the primary and secondary seals shall be performed within 90 calendar days of installation of the secondary seal, and according to the frequency specified in paragraphs (i) and (iii) of this section thereafter.

(iii) For an external floating roof vessel equipped with primary and secondary seals, measurements of gaps between the vessel wall and the secondary seal shall be performed by the compliance date specified in § 63.100 of subpart F of this part and at least once per year thereafter.

[40 C.F.R. §§ 63.120(b)(1) and (9); and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.2.2.]

EWVI shall visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects; the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or the gaskets no longer close off the liquid surface from the atmosphere; or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with organic HAP.

(ii) Except as provided in paragraph (iii) below, for all the inspections of the external floating roof, primary seal, secondary seal, and fittings, EWVI shall notify the Administrator in writing at least 30 calendar days prior to filling or refilling of each storage vessel with organic HAP to afford the Administrator the opportunity to inspect the storage vessel prior to refilling.

(iii) If the inspection of the external floating roof, primary seal, secondary seal, and fittings is not planned and EWVI could not have known about the inspection 30 calendar days in advance of refilling the vessel with organic HAP, EWVI shall notify the Administrator at least 7 calendar days prior to refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to the refilling.

[40 C.F.R. § 63.120(b)(10) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.2.3.]

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

If EWVI elects to utilize an extension in emptying a storage vessel in accordance with 40 C.F.R. § 63.120 (a)(4), (b)(7)(ii), or (b)(8), EWVI shall keep the documentation specified in 40 C.F.R. § 63.120 (a)(4), (b)(7)(ii), or (b)(8) in a readily accessible location, as applicable.

[40 C.F.R. § 63.123(g) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.4.]

If EWVI elects to comply with 40 C.F.R § 63.119(c), EWVI shall keep records describing the results of each seal gap measurement made in accordance with 40 C.F.R. § 63.120(b). The records shall include the date of the measurement, the raw data obtained in the measurement, and the calculations described in 40 C.F.R. § 63.120(b) (3) and (4).

[40 C.F.R. § 63.123(d) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.6.]

Reporting:
If EWVI elects to comply with 40 C.F.R. § 63.646 by using an external floating roof, EWVI shall meet the periodic reporting requirements specified in paragraphs (i) through (iii) below.

(i) EWVI shall submit, as part of the Periodic Report, documentation of the results of each seal gap measurement made in accordance with 40 C.F.R. § 63.120(b) of subpart G in which the seal and seal gap requirements of 40 C.F.R. § 63.120(b)(3), (b)(4), (b)(5), or (b)(6) of subpart G are not met. This documentation shall include the date of the seal gap measurement, the raw data obtained in the seal gap measurement and the calculations described in 40 C.F.R. § 63.120(b)(3) and (b)(4) of subpart G, a description of any seal condition specified in 40 C.F.R. § 63.120(b)(5) or (b)(6) of subpart G, and a description of the nature of and date the repair was made, or the date the storage vessel was emptied.

(ii) If an extension is utilized in accordance with 40 C.F.R. § 63.120(b)(7)(ii) or (b)(8) of subpart G, EWVI shall, in the next Periodic Report, identify the vessel; include the documentation specified in 40 C.F.R. § 63.120(b)(7)(ii) or (b)(8) of subpart G, as applicable; and describe the date the vessel was emptied and the nature of and date the repair was made.

(iii) EWVI shall submit, as part of the Periodic Report, documentation of any failures that are identified during visual inspections required by 40 C.F.R. § 63.120(b)(10) of subpart G. This documentation shall meet the specifications and requirements in paragraphs (A) and (B) below.

(A) A failure is defined as any time in which the external floating roof has defects; or the primary seal has holes or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or, for a storage vessel that is part of a new source, the gaskets no longer close off the liquid surface from the atmosphere; or, for a storage vessel that is part of a new source, the slotted membrane has more than 10 percent open area.

(B) Each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made.

[40 C.F.R. § 63.654(g)(3) and 45CSR§34-2.1.; 45CSR13 - R13-2334 - 7.4.2.]

The Notification of Compliance Status report shall include the following information:

(i) For storage vessels:

(A) Identification of each storage vessel subject to 40 C.F.R. Part 63 subpart CC, and for each Group 1 storage vessel subject to 40C.F.R. Part 63 subpart CC, the information specified in 40 C.F.R. §§ 63.654 (f)(1)(i)(A)(*1*) through (f)(1)(i)(A)(*3*). This information is to be revised each time a Notification of Compliance Status report is submitted for a storage vessel subject to the compliance schedule specified in § 63.640(h)(4) or to comply with § 63.640(l)(3).

(*1*) For each Group 1 storage vessel complying with 40 C.F.R. § 63.646 that is not included in an emissions average, the method of compliance (i.e., internal floating roof, external floating roof, or closed vent system and control device).

(*2*) For storage vessels subject to the compliance schedule specified in 40C.F.R. § 63.640(h)(4) that are not complying with 40 C.F.R. § 63.646, the anticipated compliance date.

(*3*) For storage vessels subject to the compliance schedule specified in 40 C.F.R. § 63.640(h)(4) that are complying with 40 C.F.R. § 63.646 and the Group 1 storage vessels described in 40 C.F.R. § 63.640(l), the actual compliance date.

[40 C.F.R. § 63.654(f)(1) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.4.3.]

Notifications of inspections as specified in paragraph (i) below section shall be submitted;

(i) In order to afford the Administrator the opportunity to have an observer present, EWVI shall notify the Administrator of the refilling of each Group 1 storage vessel that has been emptied and degassed.

(A) Except as provided in paragraphs (B) and (C) below, EWVI shall notify the Administrator in writing at least 30 calendar days prior to filling or refilling of each storage vessel with organic HAP's to afford the Administrator the opportunity to inspect the storage vessel prior to refilling.

(B) Except as provided in paragraph (C) below, if the internal inspection required by 40 C.F.R. §§ 63.120(a)(2), 63.120(a)(3), or 63.120(b)(10) of subpart G of this part is not planned and EWVI could not

have known about the inspection 30 calendar days in advance of refilling the vessel with organic HAP's, the owner or operator shall notify the Administrator at least 7 calendar days prior to refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. This notification, including the written documentation, may also be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to the refilling.

(C) The State or local permitting authority can waive the notification requirements of paragraphs (A) and/or (B) above for all or some storage vessels at petroleum refineries subject 40 C.F.R. Part 63 subpart CC. The State or local permitting authority may also grant permission to refill storage vessels sooner than 30 days after submitting the notification required by paragraph (A) above, or sooner than 7 days after submitting the notification required by paragraph (B) above for all storage vessels, or for individual storage vessels on a case-by-case basis.

[40 C.F.R. § 63.654(h)(2)(i) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.4.4.]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4006	TK-4006	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
External floating roof; gasoline; mechanical shoe

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,050,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.4, 7.1.5 – R13-2334M
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – Section 7.1.5 – R13-2334M
Applicable Requirement – 40 CFR 63
Limitations – Section 7.1.5 – R13-2334M

__X__ 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.)

Monitoring:
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director:

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, EWVI may elect to:

1. cover an external floating roof tank with a fixed roof mounted on the tank above the external floating roof, or

2. 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. EWVI 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 - Permit R13-2334 - 7.1.4.]**

[45CSR13 - Permit R13-2334 - 7.2.1.]

Except as provided in 40 C.F.R. § 63.120(b)(7), EWVI shall determine the gap areas and maximum gap widths between the primary seal and the wall of the storage vessel, and the secondary seal and the wall of the storage vessel according to the frequency specified in paragraphs (i) through (iii) below. EWVI shall notify the Administrator in writing 30 calendar days in advance of any required gap measurements to afford the Administrator the opportunity to have an observer present.

(i) For an external floating roof vessel equipped with primary and secondary seals, measurements of gaps

between the vessel wall and the primary seal shall be performed during the hydrostatic testing of the vessel or by the compliance date specified in 40 C.F.R. § 63.100 of subpart F, whichever occurs last, and at least once every 5 years thereafter.

(ii) For an external floating roof vessel equipped with a liquid-mounted or metallic shoe primary seal and without a secondary seal as provided for in 40 C.F.R. § 63.119(c)(1)(iv) of subpart G, measurements of gaps between the vessel wall and the primary seal shall be performed by the compliance date specified in 40 C.F.R. § 63.100 of subpart F and at least once per year thereafter, until a secondary seal is installed. When a secondary seal is installed above the primary seal, measurements of gaps between the vessel wall and both the primary and secondary seals shall be performed within 90 calendar days of installation of the secondary seal, and according to the frequency specified in paragraphs (i) and (iii) of this section thereafter.

(iii) For an external floating roof vessel equipped with primary and secondary seals, measurements of gaps between the vessel wall and the secondary seal shall be performed by the compliance date specified in § 63.100 of subpart F of this part and at least once per year thereafter.

[40 C.F.R. §§ 63.120(b)(1) and (9); and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.2.2.]

EWVI shall visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects; the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or the gaskets no longer close off the liquid surface from the atmosphere; or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with organic HAP.

(ii) Except as provided in paragraph (iii) below, for all the inspections of the external floating roof, primary seal, secondary seal, and fittings, EWVI shall notify the Administrator in writing at least 30 calendar days prior to filling or refilling of each storage vessel with organic HAP to afford the Administrator the opportunity to inspect the storage vessel prior to refilling.

(iii) If the inspection of the external floating roof, primary seal, secondary seal, and fittings is not planned and EWVI could not have known about the inspection 30 calendar days in advance of refilling the vessel with organic HAP, EWVI shall notify the Administrator at least 7 calendar days prior to refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to the refilling.

[40 C.F.R. § 63.120(b)(10) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.2.3.]

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

If EWVI elects to utilize an extension in emptying a storage vessel in accordance with 40 C.F.R. § 63.120 (a)(4), (b)(7)(ii), or (b)(8), EWVI shall keep the documentation specified in 40 C.F.R. § 63.120 (a)(4), (b)(7)(ii), or (b)(8) in

a readily accessible location, as applicable.
[40 C.F.R. § 63.123(g) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.4.]

If EWVI elects to comply with 40 C.F.R § 63.119(c), EWVI shall keep records describing the results of each seal gap measurement made in accordance with 40 C.F.R. § 63.120(b). The records shall include the date of the measurement, the raw data obtained in the measurement, and the calculations described in 40 C.F.R. § 63.120(b) (3) and (4).
[40 C.F.R. § 63.123(d) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.6.]

Reporting:
If EWVI elects to comply with 40 C.F.R. § 63.646 by using an external floating roof, EWVI shall meet the periodic reporting requirements specified in paragraphs (i) through (iii) below.

(i) EWVI shall submit, as part of the Periodic Report, documentation of the results of each seal gap measurement made in accordance with 40 C.F.R. § 63.120(b) of subpart G in which the seal and seal gap requirements of 40 C.F.R. § 63.120(b)(3), (b)(4), (b)(5), or (b)(6) of subpart G are not met. This documentation shall include the date of the seal gap measurement, the raw data obtained in the seal gap measurement and the calculations described in 40 C.F.R. § 63.120(b)(3) and (b)(4) of subpart G, a description of any seal condition specified in 40 C.F.R. § 63.120(b)(5) or (b)(6) of subpart G, and a description of the nature of and date the repair was made, or the date the storage vessel was emptied.

(ii) If an extension is utilized in accordance with 40 C.F.R. § 63.120(b)(7)(ii) or (b)(8) of subpart G, EWVI shall, in the next Periodic Report, identify the vessel; include the documentation specified in 40 C.F.R. § 63.120(b)(7)(ii) or (b)(8) of subpart G, as applicable; and describe the date the vessel was emptied and the nature of and date the repair was made.

(iii) EWVI shall submit, as part of the Periodic Report, documentation of any failures that are identified during visual inspections required by 40 C.F.R. § 63.120(b)(10) of subpart G. This documentation shall meet the specifications and requirements in paragraphs (A) and (B) below.

(A) A failure is defined as any time in which the external floating roof has defects; or the primary seal has holes or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or, for a storage vessel that is part of a new source, the gaskets no longer close off the liquid surface from the atmosphere; or, for a storage vessel that is part of a new source, the slotted membrane has more than 10 percent open area.

(B) Each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made.

[40 C.F.R. § 63.654(g)(3) and 45CSR§34-2.1.; 45CSR13 - R13-2334 - 7.4.2.]

The Notification of Compliance Status report shall include the following information:

(i) For storage vessels:

(A) Identification of each storage vessel subject to 40 C.F.R. Part 63 subpart CC, and for each Group 1 storage vessel subject to 40C.F.R. Part 63 subpart CC, the information specified in 40 C.F.R. §§ 63.654 (f)(1)(i)(A)(*1*) through (f)(1)(i)(A)(*3*). This information is to be revised each time a Notification of Compliance Status report is submitted for a storage vessel subject to the compliance schedule specified in § 63.640(h)(4) or to comply with § 63.640(l)(3).

(*1*) For each Group 1 storage vessel complying with 40 C.F.R. § 63.646 that is not included in an emissions average, the method of compliance (i.e., internal floating roof, external floating roof, or closed vent system and control device).

(*2*) For storage vessels subject to the compliance schedule specified in 40C.F.R. § 63.640(h)(4) that are not complying with 40 C.F.R. § 63.646, the anticipated compliance date.

(*3*) For storage vessels subject to the compliance schedule specified in 40 C.F.R. § 63.640(h)(4) that are complying with 40 C.F.R. § 63.646 and the Group 1 storage vessels described in 40 C.F.R. § 63.640(l), the actual compliance date.

[40 C.F.R. § 63.654(f)(1) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.4.3.]

Notifications of inspections as specified in paragraph (i) below section shall be submitted;

(i) In order to afford the Administrator the opportunity to have an observer present, EWVI shall notify the Administrator of the refilling of each Group 1 storage vessel that has been emptied and degassed.

(A) Except as provided in paragraphs (B) and (C) below, EWVI shall notify the Administrator in writing at least 30 calendar days prior to filling or refilling of each storage vessel with organic HAP's to afford the Administrator the opportunity to inspect the storage vessel prior to refilling.

(B) Except as provided in paragraph (C) below, if the internal inspection required by 40 C.F.R. §§

63.120(a)(2), 63.120(a)(3), or 63.120(b)(10) of subpart G of this part is not planned and EWVI could not have known about the inspection 30 calendar days in advance of refilling the vessel with organic HAP's, the owner or operator shall notify the Administrator at least 7 calendar days prior to refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. This notification, including the written documentation, may also be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to the refilling.

(C) The State or local permitting authority can waive the notification requirements of paragraphs (A) and/or (B) above for all or some storage vessels at petroleum refineries subject 40 C.F.R. Part 63 subpart CC. The State or local permitting authority may also grant permission to refill storage vessels sooner than 30 days after submitting the notification required by paragraph (A) above, or sooner than 7 days after submitting the notification required by paragraph (B) above for all storage vessels, or for individual storage vessels on a case-by-case basis.

[40 C.F.R. § 63.654(h)(2)(i) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.4.4.]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4007	TK-4007	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
2,310,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4008	TK-4008	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1970	MM/DD/1970	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,260,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4009	TK-4009	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products or kerosene

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,260,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4010	TK-4010	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1970	MM/DD/1970	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,260,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4011	TK-4011	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products or kerosene

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,260,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4012	TK-4012	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Internal floating roof; gasoline; mechanical shoe

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
630,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2, 7.1.3, 7.1.5 – R13-2334M
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – Section 7.1.5 – R13-2334M
Applicable Requirement – 40 CFR 63
Limitations – Section 7.1.5 – R13-2334M

__X__ 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.)

Monitoring:
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director:
Fixed roof Group 1 Tank 4012 shall be equipped with internal floating roofs to minimize emissions of VOC's.
[45CSR13 - Permit R13-2334 - 7.1.3.]
[45CSR13 - Permit R13-2334 - 7.2.1.]

To demonstrate compliance with 40 C.F.R. § 63.119(b) (storage vessel equipped with a fixed roof and internal floating roof) or with 40 C.F.R. § 63.119(d) (storage vessel equipped with an external floating roof converted to an internal floating roof), EWVI shall comply with the requirements below.

(1) EWVI shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), according to the schedule specified in paragraphs (2) and (3) below.

(2) For vessels equipped with a single-seal system, EWVI shall perform the inspections specified in paragraphs (2)(i) and (2)(ii) below.

(i) Visually inspect the internal floating roof and the seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill, or at least once every 12 months after the compliance date specified in 40 C.F.R. § 63.100 of subpart F.

(ii) Visually inspect the internal floating roof, the seal, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and degassed, and at least once every 10 years after the compliance date specified in 40 C.F.R. § 63.100 of subpart F.

(3) For vessels equipped with a double-seal system as specified in 40 C.F.R. § 63.119(b)(3)(iii), EWVI shall perform either the inspection required in paragraph (3)(i) of this section or the inspections required in both paragraphs (3)(ii) and (3)(iii) of this section.

(i) EWVI shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and degassed and at least once every 5 years after the compliance date specified in 40 C.F.R. § 63.100 of subpart F; or

(ii) EWVI shall visually inspect the internal floating roof and the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill, or at least once every 12 months after the compliance date specified in 40 C.F.R. § 63.100 of subpart F, and (iii) Visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes, and sleeve seals (if any) each time the vessel is emptied and degassed and at least once every 10 years after the compliance date specified in 40 C.F.R. § 63.100 of subpart F.

[40 C.F.R. § 63.120(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.2.4.]

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

If EWVI elects to utilize an extension in emptying a storage vessel in accordance with 40 C.F.R. § 63.120 (a)(4), (b)(7)(ii), or (b)(8), EWVI shall keep the documentation specified in 40 C.F.R. § 63.120 (a)(4), (b)(7)(ii), or (b)(8) in a readily accessible location, as applicable.
[40 C.F.R. § 63.123(g) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.4.]

If EWVI elects to comply with 40 C.F.R. § 63.119(b), EWVI shall keep a record that each inspection required by 40 C.F.R. § 63.120(a) of subpart G was performed.
[40 C.F.R. § 63.123(c) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.5.]

Reporting:
If EWVI elects to comply with 40 C.F.R. § 63.646 by using a fixed roof and an internal floating roof or by using an external floating roof converted to an internal floating roof, EWVI shall submit the results of each inspection conducted in accordance with 40 C.F.R. § 63.120(a) of subpart G in which a failure is detected in the control equipment.

(i) For vessels for which annual inspections are required under 40 C.F.R. § 63.120(a)(2)(i) or (a)(3)(ii) of subpart G, the specifications and requirements listed in paragraphs (A) through (C) below apply.

(A) A failure is defined as any time in which the internal floating roof is not resting on the surface of the liquid inside the storage vessel and is not resting on the leg supports; or there is liquid on the floating roof; or the seal is detached from the internal floating roof; or there are holes, tears, or other openings in the seal or seal fabric; or there are visible gaps between the seal and the wall of the storage vessel.

(B) Except as provided in paragraph (C) below, each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made or the date the storage vessel was emptied.

(C) If an extension is utilized in accordance with 40 C.F.R. § 63.120(a)(4) of subpart G, EWVI shall, in the next Periodic Report, identify the vessel; include the documentation specified in 40 C.F.R. § 63.120(a)(4) of subpart G; and describe the date the storage vessel was emptied and the nature of and date the repair was made.

[40 C.F.R. § 63.654(g)(2) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.4.1.]

The Notification of Compliance Status report shall include the following information:

(i) For storage vessels:

(A) Identification of each storage vessel subject to 40 C.F.R. Part 63 subpart CC, and for each Group 1 storage vessel subject to 40C.F.R. Part 63 subpart CC, the information specified in 40 C.F.R. §§ 63.654 (f)(1)(i)(A)(*1*) through (f)(1)(i)(A)(*3*). This information is to be revised each time a Notification of Compliance Status report is submitted for a storage vessel subject to the compliance schedule specified in § 63.640(h)(4) or to comply with § 63.640(l)(3).

(*1*) For each Group 1 storage vessel complying with 40 C.F.R. § 63.646 that is not included in an

emissions average, the method of compliance (i.e., internal floating roof, external floating roof, or closed vent system and control device).

(*2*) For storage vessels subject to the compliance schedule specified in 40C.F.R. § 63.640(h)(4) that are not complying with 40 C.F.R. § 63.646, the anticipated compliance date.

(*3*) For storage vessels subject to the compliance schedule specified in 40 C.F.R. § 63.640(h)(4) that are complying with 40 C.F.R. § 63.646 and the Group 1 storage vessels described in 40 C.F.R. § 63.640(l), the actual compliance date.

[40 C.F.R. § 63.654(f)(1) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.4.3.]

Notifications of inspections as specified in paragraph (i) below section shall be submitted;

(i) In order to afford the Administrator the opportunity to have an observer present, EWVI shall notify the Administrator of the refilling of each Group 1 storage vessel that has been emptied and degassed.

(A) Except as provided in paragraphs (B) and (C) below, EWVI shall notify the Administrator in writing at least 30 calendar days prior to filling or refilling of each storage vessel with organic HAP's to afford the Administrator the opportunity to inspect the storage vessel prior to refilling.

(B) Except as provided in paragraph (C) below, if the internal inspection required by 40 C.F.R. §§ 63.120(a)(2), 63.120(a)(3), or 63.120(b)(10) of subpart G of this part is not planned and EWVI could not have known about the inspection 30 calendar days in advance of refilling the vessel with organic HAP's, the owner or operator shall notify the Administrator at least 7 calendar days prior to refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. This notification, including the written documentation, may also be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to the refilling.

(C) The State or local permitting authority can waive the notification requirements of paragraphs (A) and/or (B) above for all or some storage vessels at petroleum refineries subject 40 C.F.R. Part 63 subpart CC. The State or local permitting authority may also grant permission to refill storage vessels sooner than 30 days after submitting the notification required by paragraph (A) above, or sooner than 7 days after submitting the notification required by paragraph (B) above for all storage vessels, or for individual storage vessels on a case-by-case basis.

[40 C.F.R. § 63.654(h)(2)(i) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.4.4.]

Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4013	TK-4013	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Internal floating roof; gasoline; mechanical shoe

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
630,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2, 7.1.3, 7.1.5 – R13-2334M
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – Section 7.1.5 – R13-2334M
Applicable Requirement – 40 CFR 63
Limitations – Section 7.1.5 – R13-2334M

__X__ 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.)

Monitoring:
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director:
Fixed roof Group 1 Tanks 4013 shall be equipped with internal floating roofs to minimize emissions of VOC's.
[45CSR13 - Permit R13-2334 - 7.1.3.]
[45CSR13 - Permit R13-2334 - 7.2.1.]

To demonstrate compliance with 40 C.F.R. § 63.119(b) (storage vessel equipped with a fixed roof and internal floating roof) or with 40 C.F.R. § 63.119(d) (storage vessel equipped with an external floating roof converted to an internal floating roof), the owner or operator shall comply with the requirements below.

(1) The owner or operator shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), according to the schedule specified in paragraphs (2) and (3) below.

(2) For vessels equipped with a single-seal system, the owner or operator shall perform the inspections specified in paragraphs (2)(i) and (2)(ii) below.

(i) Visually inspect the internal floating roof and the seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill, or at least once every 12 months after the compliance date specified in 40 C.F.R. § 63.100 of subpart F.

(ii) Visually inspect the internal floating roof, the seal, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and degassed, and at least once every 10 years after the compliance date specified in 40 C.F.R. § 63.100 of subpart F.

(3) For vessels equipped with a double-seal system as specified in 40 C.F.R. § 63.119(b)(3)(iii), the permittee shall perform either the inspection required in paragraph (3)(i) of this section or the inspections required in both paragraphs (3)(ii) and (3)(iii) of this section.

(i) The owner or operator shall visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes, and sleeve seals (if any) each time the storage vessel is emptied and degassed and at least once every 5 years after the compliance date specified in 40 C.F.R. § 63.100 of subpart F; or

(ii) The permittee shall visually inspect the internal floating roof and the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill, or at least once every 12 months after the compliance date specified in 40 C.F.R. § 63.100 of subpart F, and (iii) Visually inspect the internal floating roof, the primary seal, the secondary seal, gaskets, slotted membranes, and sleeve seals (if any) each time the vessel is emptied and degassed and at least once every 10 years after the compliance date specified in 40 C.F.R. § 63.100 of subpart F.

[40 C.F.R. § 63.120(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.2.4.]

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

If EWVI elects to utilize an extension in emptying a storage vessel in accordance with 40 C.F.R. § 63.120 (a)(4), (b)(7)(ii), or (b)(8), EWVI shall keep the documentation specified in 40 C.F.R. § 63.120 (a)(4), (b)(7)(ii), or (b)(8) in a readily accessible location, as applicable.
[40 C.F.R. § 63.123(g) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.4.]

If EWVI elects to comply with 40 C.F.R. § 63.119(b), EWVI shall keep a record that each inspection required by 40 C.F.R. § 63.120(a) of subpart G was performed.
[40 C.F.R. § 63.123(c) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.5.]

Reporting:
If EWVI elects to comply with 40 C.F.R. § 63.646 by using a fixed roof and an internal floating roof or by using an external floating roof converted to an internal floating roof, EWVI shall submit the results of each inspection conducted in accordance with 40 C.F.R. § 63.120(a) of subpart G in which a failure is detected in the control equipment.

(i) For vessels for which annual inspections are required under 40 C.F.R. § 63.120(a)(2)(i) or (a)(3)(ii) of subpart G, the specifications and requirements listed in paragraphs (A) through (C) below apply.

(A) A failure is defined as any time in which the internal floating roof is not resting on the surface of the liquid inside the storage vessel and is not resting on the leg supports; or there is liquid on the floating roof; or the seal is detached from the internal floating roof; or there are holes, tears, or other openings in the seal or seal fabric; or there are visible gaps between the seal and the wall of the storage vessel.

(B) Except as provided in paragraph (C) below, each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made or the date the storage vessel was emptied.

(C) If an extension is utilized in accordance with 40 C.F.R. § 63.120(a)(4) of subpart G, EWVI shall, in the next Periodic Report, identify the vessel; include the documentation specified in 40 C.F.R. § 63.120(a)(4) of subpart G; and describe the date the storage vessel was emptied and the nature of and date the repair was made.

[40 C.F.R. § 63.654(g)(2) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.4.1.]

The Notification of Compliance Status report shall include the following information:

(i) For storage vessels:

(A) Identification of each storage vessel subject to 40 C.F.R. Part 63 subpart CC, and for each Group 1 storage vessel subject to 40C.F.R. Part 63 subpart CC, the information specified in 40 C.F.R. §§ 63.654 (f)(1)(i)(A)(*1*) through (f)(1)(i)(A)(*3*). This information is to be revised each time a Notification of

Compliance Status report is submitted for a storage vessel subject to the compliance schedule specified in § 63.640(h)(4) or to comply with § 63.640(l)(3).

(*1*) For each Group 1 storage vessel complying with 40 C.F.R. § 63.646 that is not included in an emissions average, the method of compliance (i.e., internal floating roof, external floating roof, or closed vent system and control device).

(*2*) For storage vessels subject to the compliance schedule specified in 40C.F.R. § 63.640(h)(4) that are not complying with 40 C.F.R. § 63.646, the anticipated compliance date.

(*3*) For storage vessels subject to the compliance schedule specified in 40 C.F.R. § 63.640(h)(4) that are complying with 40 C.F.R. § 63.646 and the Group 1 storage vessels described in 40 C.F.R. § 63.640(l), the actual compliance date.

[40 C.F.R. § 63.654(f)(1) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.4.3.]

Notifications of inspections as specified in paragraph (i) below section shall be submitted;

(i) In order to afford the Administrator the opportunity to have an observer present, EWVI shall notify the Administrator of the refilling of each Group 1 storage vessel that has been emptied and degassed.

(A) Except as provided in paragraphs (B) and (C) below, EWVI shall notify the Administrator in writing at least 30 calendar days prior to filling or refilling of each storage vessel with organic HAP's to afford the Administrator the opportunity to inspect the storage vessel prior to refilling.

(B) Except as provided in paragraph (C) below, if the internal inspection required by 40 C.F.R. §§ 63.120(a)(2), 63.120(a)(3), or 63.120(b)(10) of subpart G of this part is not planned and EWVI could not have known about the inspection 30 calendar days in advance of refilling the vessel with organic HAP's, the owner or operator shall notify the Administrator at least 7 calendar days prior to refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. This notification, including the written documentation, may also be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to the refilling.

(C) The State or local permitting authority can waive the notification requirements of paragraphs (A) and/or (B) above for all or some storage vessels at petroleum refineries subject 40 C.F.R. Part 63 subpart CC. The State or local permitting authority may also grant permission to refill storage vessels sooner than 30 days after submitting the notification required by paragraph (A) above, or sooner than 7 days after submitting the notification required by paragraph (B) above for all storage vessels, or for individual storage vessels on a case-by-case basis.

[40 C.F.R. § 63.654(h)(2)(i) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.4.4.]

Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4014	TK-4014	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
External floating roof; gasoline; mechanical shoe

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	2013

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
315,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	N/A	See Section 2.0
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2, 7.1.4 – Permit R13-2334V
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

<u>Monitoring:</u>
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director.
[Permit R13-2334V – Section 7.2.1]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets,

slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed.
If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7

days prior to the refilling.
(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334V - 7.2.2.]

Testing:

N/A

Recordkeeping:

To determine compliance with VOC emission limits, EWVI 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 R13-2334V - 7.3.1.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

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

[45CSR13 - Permit R13-2334V - 7.3.2.; 45CSR§30-5.1.c.]

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

a) After installing control equipment in accordance with § 60.1l2b(a)(l) (fixed roof and internal floating root), 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 * 60.112b(a)(1) and * 60.113b(a)(l). This report shall be an attachment to the notification required by § 60.7(a)(3).
   (2) Keep a record of each inspection perfornled as required by § 60.113b (a)(l), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in * 60.113b(a)(2) are detected during the annual visual inspection required by * 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in * 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days ofthe inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of * 61.l12b(a)(l) or § 60.113b(a)(3) and list each repair made.

b) After installing control equipment in accordance with * 61.112b(a)(2) (external floating root), 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 § 60.112b(a)(2) and § 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by * 60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by * 60. l13b(b)(l), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.1l3b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by * 60.113b(b). Each record shall identify the storage vessel in which the measurement was perfonned and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.113b (b)(2) and (b)(3).

[NSPS, Subpart Kb; 40 CFR 60.115b and 45CSR 16-2.1; Permit R13-2334V – Section 7.3.4]

(a) The owner or operator shall keep copies of all records required by 40 C.F.R. 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 C.F.R. § 60.l10b(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 lSI 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 m' 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 m' 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 refmed 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 specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure detelmined 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 cutofffor controls as defined in 40 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 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 C.F .R. § 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.

[NSPS, Subpart Kb; 40 C.F.R. § 60.116b and 45CSR§16-2.1; Permit R13-2334V – Section 7.3.5]

Reporting:

N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4015	TK-4015	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
External floating roof; gasoline; mechanical shoe

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	2013

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
315,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

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Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	N/A	See Section 2.0
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2, 7.1.4 – Permit R13-2334V
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

<u>Monitoring:</u>
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director.
[Permit R13-2334V – Section 7.2.1]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets,

slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed.
If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7

days prior to the refilling.
(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334V - 7.2.2.]

Testing:

N/A

Recordkeeping:

To determine compliance with VOC emission limits, EWVI 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 R13-2334V - 7.3.1.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

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

[45CSR13 - Permit R13-2334V - 7.3.2.; 45CSR§30-5.1.c.]

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

a) After installing control equipment in accordance with § 60.1l2b(a)(l) (fixed roof and internal floating root), 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 * 60.112b(a)(1) and * 60.113b(a)(l). This report shall be an attachment to the notification required by § 60.7(a)(3).
   (2) Keep a record of each inspection perfornled as required by § 60.113b (a)(l), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in * 60.113b(a)(2) are detected during the annual visual inspection required by * 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in * 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days ofthe inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of * 61.l12b(a)(l) or § 60.113b(a)(3) and list each repair made.

b) After installing control equipment in accordance with * 61.112b(a)(2) (external floating root), 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 § 60.112b(a)(2) and § 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by * 60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by * 60. l13b(b)(l), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.1l3b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by * 60.113b(b). Each record shall identify the storage vessel in which the measurement was perfonned and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.113b (b)(2) and (b)(3).

[NSPS, Subpart Kb; 40 CFR 60.115b and 45CSR 16-2.1; Permit R13-2334V – Section 7.3.4]

(a) The owner or operator shall keep copies of all records required by 40 C.F.R. 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 C.F.R. § 60.l10b(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 lSI 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 m' 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 m' 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 refmed 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 specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure detelmined 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 cutofffor controls as defined in 40 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 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 C.F .R. § 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.

[NSPS, Subpart Kb; 40 C.F.R. § 60.116b and 45CSR§16-2.1; Permit R13-2334V – Section 7.3.5]

Reporting:

N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4016	TK-4016	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
External floating roof; gasoline; mechanical shoe

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
315,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.4, 7.1.5 – R13-2334M
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – Section 7.1.5 – R13-2334M
Applicable Requirement – 40 CFR 63
Limitations – Section 7.1.5 – R13-2334M

__X__ 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.)

Monitoring:
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director:

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, EWVI may elect to:

1. cover an external floating roof tank with a fixed roof mounted on the tank above the external floating roof, or

2. 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. EWVI 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 - Permit R13-2334 - 7.1.4.]**

[45CSR13 - Permit R13-2334 - 7.2.1.]

Except as provided in 40 C.F.R. § 63.120(b)(7), EWVI shall determine the gap areas and maximum gap widths between the primary seal and the wall of the storage vessel, and the secondary seal and the wall of the storage vessel according to the frequency specified in paragraphs (i) through (iii) below. EWVI shall notify the Administrator in writing 30 calendar days in advance of any required gap measurements to afford the Administrator the opportunity to have an observer present.

(i) For an external floating roof vessel equipped with primary and secondary seals, measurements of gaps

between the vessel wall and the primary seal shall be performed during the hydrostatic testing of the vessel or by the compliance date specified in 40 C.F.R. § 63.100 of subpart F, whichever occurs last, and at least once every 5 years thereafter.

(ii) For an external floating roof vessel equipped with a liquid-mounted or metallic shoe primary seal and without a secondary seal as provided for in 40 C.F.R. § 63.119(c)(1)(iv) of subpart G, measurements of gaps between the vessel wall and the primary seal shall be performed by the compliance date specified in 40 C.F.R. § 63.100 of subpart F and at least once per year thereafter, until a secondary seal is installed. When a secondary seal is installed above the primary seal, measurements of gaps between the vessel wall and both the primary and secondary seals shall be performed within 90 calendar days of installation of the secondary seal, and according to the frequency specified in paragraphs (i) and (iii) of this section thereafter.

(iii) For an external floating roof vessel equipped with primary and secondary seals, measurements of gaps between the vessel wall and the secondary seal shall be performed by the compliance date specified in § 63.100 of subpart F of this part and at least once per year thereafter.

[40 C.F.R. §§ 63.120(b)(1) and (9); and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.2.2.]

EWVI shall visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects; the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or the gaskets no longer close off the liquid surface from the atmosphere; or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with organic HAP.

(ii) Except as provided in paragraph (iii) below, for all the inspections of the external floating roof, primary seal, secondary seal, and fittings, EWVI shall notify the Administrator in writing at least 30 calendar days prior to filling or refilling of each storage vessel with organic HAP to afford the Administrator the opportunity to inspect the storage vessel prior to refilling.

(iii) If the inspection of the external floating roof, primary seal, secondary seal, and fittings is not planned and EWVI could not have known about the inspection 30 calendar days in advance of refilling the vessel with organic HAP, EWVI shall notify the Administrator at least 7 calendar days prior to refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to the refilling.

[40 C.F.R. § 63.120(b)(10) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.2.3.]

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

If EWVI elects to utilize an extension in emptying a storage vessel in accordance with 40 C.F.R. § 63.120 (a)(4), (b)(7)(ii), or (b)(8), EWVI shall keep the documentation specified in 40 C.F.R. § 63.120 (a)(4), (b)(7)(ii), or (b)(8) in a readily accessible location, as applicable.

[40 C.F.R. § 63.123(g) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.4.]

If EWVI elects to comply with 40 C.F.R § 63.119(c), EWVI shall keep records describing the results of each seal gap measurement made in accordance with 40 C.F.R. § 63.120(b). The records shall include the date of the measurement, the raw data obtained in the measurement, and the calculations described in 40 C.F.R. § 63.120(b) (3) and (4).

[40 C.F.R. § 63.123(d) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.6.]

Reporting:
If EWVI elects to comply with 40 C.F.R. § 63.646 by using an external floating roof, EWVI shall meet the periodic reporting requirements specified in paragraphs (i) through (iii) below.

(i) EWVI shall submit, as part of the Periodic Report, documentation of the results of each seal gap measurement made in accordance with 40 C.F.R. § 63.120(b) of subpart G in which the seal and seal gap requirements of 40 C.F.R. § 63.120(b)(3), (b)(4), (b)(5), or (b)(6) of subpart G are not met. This documentation shall include the date of the seal gap measurement, the raw data obtained in the seal gap measurement and the calculations described in 40 C.F.R. § 63.120(b)(3) and (b)(4) of subpart G, a description of any seal condition specified in 40 C.F.R. § 63.120(b)(5) or (b)(6) of subpart G, and a description of the nature of and date the repair was made, or the date the storage vessel was emptied.

(ii) If an extension is utilized in accordance with 40 C.F.R. § 63.120(b)(7)(ii) or (b)(8) of subpart G, EWVI shall, in the next Periodic Report, identify the vessel; include the documentation specified in 40 C.F.R. § 63.120(b)(7)(ii) or (b)(8) of subpart G, as applicable; and describe the date the vessel was emptied and the nature of and date the repair was made.

(iii) EWVI shall submit, as part of the Periodic Report, documentation of any failures that are identified during visual inspections required by 40 C.F.R. § 63.120(b)(10) of subpart G. This documentation shall meet the specifications and requirements in paragraphs (A) and (B) below.

(A) A failure is defined as any time in which the external floating roof has defects; or the primary seal has holes or other openings in the seal or the seal fabric; or the secondary seal has holes, tears, or other openings in the seal or the seal fabric; or, for a storage vessel that is part of a new source, the gaskets no longer close off the liquid surface from the atmosphere; or, for a storage vessel that is part of a new source, the slotted membrane has more than 10 percent open area.

(B) Each Periodic Report shall include the date of the inspection, identification of each storage vessel in which a failure was detected, and a description of the failure. The Periodic Report shall also describe the nature of and date the repair was made.

[40 C.F.R. § 63.654(g)(3) and 45CSR§34-2.1.; 45CSR13 - R13-2334 - 7.4.2.]

The Notification of Compliance Status report shall include the following information:

(i) For storage vessels:

(A) Identification of each storage vessel subject to 40 C.F.R. Part 63 subpart CC, and for each Group 1 storage vessel subject to 40C.F.R. Part 63 subpart CC, the information specified in 40 C.F.R. §§ 63.654 (f)(1)(i)(A)(*1*) through (f)(1)(i)(A)(*3*). This information is to be revised each time a Notification of Compliance Status report is submitted for a storage vessel subject to the compliance schedule specified in § 63.640(h)(4) or to comply with § 63.640(l)(3).

(*1*) For each Group 1 storage vessel complying with 40 C.F.R. § 63.646 that is not included in an emissions average, the method of compliance (i.e., internal floating roof, external floating roof, or closed vent system and control device).

(*2*) For storage vessels subject to the compliance schedule specified in 40C.F.R. § 63.640(h)(4) that are not complying with 40 C.F.R. § 63.646, the anticipated compliance date.

(*3*) For storage vessels subject to the compliance schedule specified in 40 C.F.R. § 63.640(h)(4) that are complying with 40 C.F.R. § 63.646 and the Group 1 storage vessels described in 40 C.F.R. § 63.640(l), the actual compliance date.

[40 C.F.R. § 63.654(f)(1) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.4.3.]

Notifications of inspections as specified in paragraph (i) below section shall be submitted;

(i) In order to afford the Administrator the opportunity to have an observer present, EWVI shall notify the Administrator of the refilling of each Group 1 storage vessel that has been emptied and degassed.

(A) Except as provided in paragraphs (B) and (C) below, EWVI shall notify the Administrator in writing at least 30 calendar days prior to filling or refilling of each storage vessel with organic HAP's to afford the Administrator the opportunity to inspect the storage vessel prior to refilling.

(B) Except as provided in paragraph (C) below, if the internal inspection required by 40 C.F.R. §§ 63.120(a)(2), 63.120(a)(3), or 63.120(b)(10) of subpart G of this part is not planned and EWVI could not

have known about the inspection 30 calendar days in advance of refilling the vessel with organic HAP's, the owner or operator shall notify the Administrator at least 7 calendar days prior to refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. This notification, including the written documentation, may also be made in writing and sent so that it is received by the Administrator at least 7 calendar days prior to the refilling.

(C) The State or local permitting authority can waive the notification requirements of paragraphs (A) and/or (B) above for all or some storage vessels at petroleum refineries subject 40 C.F.R. Part 63 subpart CC. The State or local permitting authority may also grant permission to refill storage vessels sooner than 30 days after submitting the notification required by paragraph (A) above, or sooner than 7 days after submitting the notification required by paragraph (B) above for all storage vessels, or for individual storage vessels on a case-by-case basis.

[40 C.F.R. § 63.654(h)(2)(i) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.4.4.]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4017	TK-4017	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
840,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes __X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4018	TK-4018	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	MM/DD/2000

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
704,970 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.8 – R13-2334M
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.8
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.8
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in

this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the

following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334 - 7.2.6.]

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 C.F.R. §§ 63.119 through 63.123 other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 C.F.R. § 63.150.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI shall keep records and furnish reports as required by 40 C.F.R. § 60.115b paragraphs (a), (b), or (c) depending upon the control equipment installed to meet the requirements of 40 C.F.R. § 60.112b. EWVI shall keep copies of all reports and records required by this section, except for the record required by 40 C.F.R. § 60.115b(c)(1), for at least 2 years. The record required by 40 C.F.R. § 60.115b (c)(1) will be kept for the life of the control equipment.
[40 C.F.R. § 60.115b and 45CSR§16-2.1; 45CSR13 - Permit R13-2334 - 7.3.8.]

The following requirements apply:

(a) EWVI shall keep copies of all records required by 40 C.F.R. 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) For each storage vessel as specified in 40 C.F.R. § 60.110b(a), EWVI 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, for each storage vessel either with a design capacity greater than or equal to 151 m^3 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 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa, EWVI 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, for each storage vessel either with a design capacity greater than or equal to 151 m^3 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 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa, EWVI 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) For each vessel storing a waste mixture of indeterminate or variable composition, EWVI 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 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) For each vessel equipped with a closed vent system and control device meeting the specification of 40 C.F.R. § 60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c), EWVI is exempt from the requirements of paragraphs (c) and (d) of this section.

[40 C.F.R. § 60.116b and 45CSR§16-2.1; 45CSR13 - Permit R13-2334 - 7.3.9.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4019	TK-4019	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
704,970 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4020	TK-4020	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
840,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4021	TK-4021	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
840,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4022	TK-4022	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
571,200 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4023	TK-4023	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
571,200 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4024	TK-4024	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1970	MM/DD/1970	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
840,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4025	TK-4025	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1970	MM/DD/1970	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
840,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4026	TK-4026	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1970	MM/DD/1970	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
840,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4027	TK-4027	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
840,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4028	TK-4028	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1970	MM/DD/1970	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
210,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4029	TK-4029	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
65,100 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4030	TK-4030	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
65,100 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4031	TK-4031	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
315,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes __X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4032	TK-4032	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1971	MM/DD/1971	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
315,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4033	TK-4033	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1970	MM/DD/1970	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
315,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes __X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4034	TK-4034	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1998	MM/DD/1998	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
840,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.8 – R13-2334M
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.8
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.8
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in

this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the

following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334 - 7.2.6.]

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 C.F.R. §§ 63.119 through 63.123 other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 C.F.R. § 63.150.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI shall keep records and furnish reports as required by 40 C.F.R. § 60.115b paragraphs (a), (b), or (c) depending upon the control equipment installed to meet the requirements of 40 C.F.R. § 60.112b. EWVI shall keep copies of all reports and records required by this section, except for the record required by 40 C.F.R. § 60.115b(c)(1), for at least 2 years. The record required by 40 C.F.R. § 60.115b (c)(1) will be kept for the life of the control equipment.
[40 C.F.R. § 60.115b and 45CSR§16-2.1; 45CSR13 - Permit R13-2334 - 7.3.8.]

The following requirements apply:

(a) EWVI shall keep copies of all records required by 40 C.F.R. 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) For each storage vessel as specified in 40 C.F.R. § 60.110b(a), EWVI 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, for each storage vessel either with a design capacity greater than or equal to 151 m^3 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 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa, EWVI 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, for each storage vessel either with a design capacity greater than or equal to 151 m^3 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 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa, EWVI 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) For each vessel storing a waste mixture of indeterminate or variable composition, EWVI 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 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) For each vessel equipped with a closed vent system and control device meeting the specification of 40 C.F.R. § 60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c), EWVI is exempt from the requirements of paragraphs (c) and (d) of this section.

[40 C.F.R. § 60.116b and 45CSR§16-2.1; 45CSR13 - Permit R13-2334 - 7.3.9.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4035	TK-4035	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1983	MM/DD/1983	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
840,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.7 – R13-2334M
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.
HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100
Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 C.F.R. §§ 63.119 through 63.123 other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 C.F.R. § 63.150.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

Except as provided in 40 C.F.R. § 60.113(d), EWVI, subject to 40 C.F.R. 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 C.F.R. § 60.112(a) and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334 - 7.3.7.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4036	TK-4036	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1973	MM/DD/1973	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
315,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.7 – R13-2334M
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.
HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100
Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 C.F.R. §§ 63.119 through 63.123 other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 C.F.R. § 63.150.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

Except as provided in 40 C.F.R. § 60.113(d), EWVI, subject to 40 C.F.R. 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 C.F.R. § 60.112(a) and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334 - 7.3.7.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4037	TK-4037	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1973	MM/DD/1973	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
315,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.7 – R13-2334M
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 C.F.R. §§ 63.119 through 63.123 other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 C.F.R. § 63.150.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

Except as provided in 40 C.F.R. § 60.113(d), EWVI, subject to 40 C.F.R. 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 C.F.R. § 60.112(a) and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334 - 7.3.7.] Reporting: N/A
Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4038	TK-4038	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1976	MM/DD/1976	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
840,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.7 – R13-2334M
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 30
Limitations – N/A

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 C.F.R. §§ 63.119 through 63.123 other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 C.F.R. § 63.150.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

Except as provided in 40 C.F.R. § 60.113(d), EWVI, subject to 40 C.F.R. 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 C.F.R. § 60.112(a) and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334 - 7.3.7.]

Reporting:

N/A
Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4039	TK-4039	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1977	MM/DD/1977	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,260,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.7 – R13-2334M
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.
HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100
Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 C.F.R. §§ 63.119 through 63.123 other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 C.F.R. § 63.150.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

Except as provided in 40 C.F.R. § 60.113(d), EWVI, subject to 40 C.F.R. 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 C.F.R. § 60.112(a) and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334 - 7.3.7.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4040	TK-4040	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1978	MM/DD/1978	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
630,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4041	TK-4041	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1973	MM/DD/1973	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
630,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.7 – R13-2334M
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.
HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100
Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 C.F.R. §§ 63.119 through 63.123 other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 C.F.R. § 63.150.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

Except as provided in 40 C.F.R. § 60.113(d), EWVI, subject to 40 C.F.R. 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 C.F.R. § 60.112(a) and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334 - 7.3.7.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4042	TK-4042	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1978	MM/DD/1978	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
630,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes __X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4043	TK-4043	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1978	MM/DD/1978	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
630,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes __X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4044	TK-4044	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1982	MM/DD/1982	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,260,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4045	TK-4045	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1982	MM/DD/1982	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
630,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4046	TK-4046	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1982	MM/DD/1982	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
630,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4047	TK-4047	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1986	MM/DD/1986	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,260,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4048	TK-4048	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1986	MM/DD/1986	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
504,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.8 – R13-2334M
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.8
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.8
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than

10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334 - 7.2.6.]

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 C.F.R. §§ 63.119 through 63.123 other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 C.F.R. § 63.150.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI shall keep records and furnish reports as required by 40 C.F.R. § 60.115b paragraphs (a), (b), or (c) depending upon the control equipment installed to meet the requirements of 40 C.F.R. § 60.112b. EWVI shall keep copies of all reports and records required by this section, except for the record required by 40 C.F.R. § 60.115b(c)(1), for at least 2 years. The record required by 40 C.F.R. § 60.115b (c)(1) will be kept for the life of the control equipment.
[40 C.F.R. § 60.115b and 45CSR§16-2.1; 45CSR13 - Permit R13-2334 - 7.3.8.]

The following requirements apply:

(a) EWVI shall keep copies of all records required by 40 C.F.R. 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) For each storage vessel as specified in 40 C.F.R. § 60.110b(a), EWVI 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, for each storage vessel either with a design capacity greater than or equal to 151 m^3 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 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa, EWVI 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, for each storage vessel either with a design capacity greater than or equal to 151 m^3 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 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa, EWVI 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) For each vessel storing a waste mixture of indeterminate or variable composition, EWVI 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 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) For each vessel equipped with a closed vent system and control device meeting the specification of 40 C.F.R. § 60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c), EWVI is exempt from the requirements of paragraphs (c) and (d) of this section.

[40 C.F.R. § 60.116b and 45CSR§16-2.1; 45CSR13 - Permit R13-2334 - 7.3.9.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4050	TK-4050	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Internal floating roof; gasoline; mechanical shoe

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1993	MM/DD/1993	2013

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
630,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	N/A	See Section 2.0
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2 – Permit R13-2334V
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director.
[Permit R13-2334V – Section 7.2.1]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets,

slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed.
If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7

days prior to the refilling.
(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334V - 7.2.2.]

Testing:

N/A

Recordkeeping:

To determine compliance with VOC emission limits, EWVI 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 R13-2334V - 7.3.1.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

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

[45CSR13 - Permit R13-2334V - 7.3.2.; 45CSR§30-5.1.c.]

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

a) After installing control equipment in accordance with § 60.1l2b(a)(l) (fixed roof and internal floating root), 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 * 60.112b(a)(1) and * 60.113b(a)(l). This report shall be an attachment to the notification required by § 60.7(a)(3).
   (2) Keep a record of each inspection perfornled as required by § 60.113b (a)(l), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in * 60.113b(a)(2) are detected during the annual visual inspection required by * 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in * 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days ofthe inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of * 61.l12b(a)(l) or § 60.113b(a)(3) and list each repair made.

b) After installing control equipment in accordance with * 61.112b(a)(2) (external floating root), 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 § 60.112b(a)(2) and § 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by * 60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by * 60. l13b(b)(l), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.1l3b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by * 60.113b(b). Each record shall identify the storage vessel in which the measurement was perfonned and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.113b (b)(2) and (b)(3).

[NSPS, Subpart Kb; 40 CFR 60.115b and 45CSR 16-2.1; Permit R13-2334V – Section 7.3.4]

(a) The owner or operator shall keep copies of all records required by 40 C.F.R. 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 C.F.R. § 60.l10b(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 lSI 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 m' 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 m' 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 refmed 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 specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure detelmined 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 cutofffor controls as defined in 40 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 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 C.F .R. § 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.

[NSPS, Subpart Kb; 40 C.F.R. § 60.116b and 45CSR§16-2.1; Permit R13-2334V – Section 7.3.5]

Reporting:

N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4051	TK-4051	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1996	MM/DD/1996	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1,260,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4052	TK-4052	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; ethanol

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1972	MM/DD/1972	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
30,240 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.8 – R13-2334M
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.8
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.8
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in

this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the

following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334 - 7.2.6.]

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 C.F.R. §§ 63.119 through 63.123 other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 C.F.R. § 63.150.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI shall keep records and furnish reports as required by 40 C.F.R. § 60.115b paragraphs (a), (b), or (c) depending upon the control equipment installed to meet the requirements of 40 C.F.R. § 60.112b. EWVI shall keep copies of all reports and records required by this section, except for the record required by 40 C.F.R. § 60.115b(c)(1), for at least 2 years. The record required by 40 C.F.R. § 60.115b (c)(1) will be kept for the life of the control equipment.
[40 C.F.R. § 60.115b and 45CSR§16-2.1; 45CSR13 - Permit R13-2334 - 7.3.8.]

The following requirements apply:

(a) EWVI shall keep copies of all records required by 40 C.F.R. 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) For each storage vessel as specified in 40 C.F.R. § 60.110b(a), EWVI 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, for each storage vessel either with a design capacity greater than or equal to 151 m^3 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 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa, EWVI 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, for each storage vessel either with a design capacity greater than or equal to 151 m^3 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 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa, EWVI 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) For each vessel storing a waste mixture of indeterminate or variable composition, EWVI 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 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) For each vessel equipped with a closed vent system and control device meeting the specification of 40 C.F.R. § 60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c), EWVI is exempt from the requirements of paragraphs (c) and (d) of this section.

[40 C.F.R. § 60.116b and 45CSR§16-2.1; 45CSR13 - Permit R13-2334 - 7.3.9.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4053	TK-4053	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; ethanol

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1972	MM/DD/1972	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
30,240 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.8 – R13-2334M
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.8
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.8
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than

10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334 - 7.2.6.]

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 C.F.R. §§ 63.119 through 63.123 other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 C.F.R. § 63.150.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI shall keep records and furnish reports as required by 40 C.F.R. § 60.115b paragraphs (a), (b), or (c) depending upon the control equipment installed to meet the requirements of 40 C.F.R. § 60.112b. EWVI shall keep copies of all reports and records required by this section, except for the record required by 40 C.F.R. § 60.115b(c)(1), for at least 2 years. The record required by 40 C.F.R. § 60.115b (c)(1) will be kept for the life of the control equipment.
[40 C.F.R. § 60.115b and 45CSR§16-2.1; 45CSR13 - Permit R13-2334 - 7.3.8.]

The following requirements apply:

(a) EWVI shall keep copies of all records required by 40 C.F.R. 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) For each storage vessel as specified in 40 C.F.R. § 60.110b(a), EWVI 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, for each storage vessel either with a design capacity greater than or equal to 151 m^3 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 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa, EWVI 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, for each storage vessel either with a design capacity greater than or equal to 151 m^3 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 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa, EWVI 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) For each vessel storing a waste mixture of indeterminate or variable composition, EWVI 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 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) For each vessel equipped with a closed vent system and control device meeting the specification of 40 C.F.R. § 60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c), EWVI is exempt from the requirements of paragraphs (c) and (d) of this section.

[40 C.F.R. § 60.116b and 45CSR§16-2.1; 45CSR13 - Permit R13-2334 - 7.3.9.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4054	TK-4054	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products or kerosene

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1998	MM/DD/1998	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
625,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes __X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2, 7.1.8 – R13-2334M
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.8
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.8
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than

10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334 - 7.2.6.]

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 C.F.R. §§ 63.119 through 63.123 other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 C.F.R. § 63.150.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI shall keep records and furnish reports as required by 40 C.F.R. § 60.115b paragraphs (a), (b), or (c) depending upon the control equipment installed to meet the requirements of 40 C.F.R. § 60.112b. EWVI shall keep copies of all reports and records required by this section, except for the record required by 40 C.F.R. § 60.115b(c)(1), for at least 2 years. The record required by 40 C.F.R. § 60.115b (c)(1) will be kept for the life of the control equipment.
[40 C.F.R. § 60.115b and 45CSR§16-2.1; 45CSR13 - Permit R13-2334 - 7.3.8.]

The following requirements apply:

(a) EWVI shall keep copies of all records required by 40 C.F.R. 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) For each storage vessel as specified in 40 C.F.R. § 60.110b(a), EWVI 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, for each storage vessel either with a design capacity greater than or equal to 151 m^3 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 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa, EWVI 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, for each storage vessel either with a design capacity greater than or equal to 151 m^3 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 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa, EWVI 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) For each vessel storing a waste mixture of indeterminate or variable composition, EWVI 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 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) For each vessel equipped with a closed vent system and control device meeting the specification of 40 C.F.R. § 60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c), EWVI is exempt from the requirements of paragraphs (c) and (d) of this section.

[40 C.F.R. § 60.116b and 45CSR§16-2.1; 45CSR13 - Permit R13-2334 - 7.3.9.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4055	TK-4055	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products or kerosene

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1998	MM/DD/1998	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
625,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes __X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4056	TK-4056	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products or kerosene

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1999	MM/DD/1999	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
625,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.8 – R13-2334M
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.8
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.8
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than

10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334 - 7.2.6.]

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 C.F.R. §§ 63.119 through 63.123 other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 C.F.R. § 63.150.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI shall keep records and furnish reports as required by 40 C.F.R. § 60.115b paragraphs (a), (b), or (c) depending upon the control equipment installed to meet the requirements of 40 C.F.R. § 60.112b. EWVI shall keep copies of all reports and records required by this section, except for the record required by 40 C.F.R. § 60.115b(c)(1), for at least 2 years. The record required by 40 C.F.R. § 60.115b (c)(1) will be kept for the life of the control equipment.
[40 C.F.R. § 60.115b and 45CSR§16-2.1; 45CSR13 - Permit R13-2334 - 7.3.8.]

The following requirements apply:

(a) EWVI shall keep copies of all records required by 40 C.F.R. 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) For each storage vessel as specified in 40 C.F.R. § 60.110b(a), EWVI 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, for each storage vessel either with a design capacity greater than or equal to 151 m^3 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 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa, EWVI 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, for each storage vessel either with a design capacity greater than or equal to 151 m^3 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 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa, EWVI 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) For each vessel storing a waste mixture of indeterminate or variable composition, EWVI 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 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) For each vessel equipped with a closed vent system and control device meeting the specification of 40 C.F.R. § 60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c), EWVI is exempt from the requirements of paragraphs (c) and (d) of this section.

[40 C.F.R. § 60.116b and 45CSR§16-2.1; 45CSR13 - Permit R13-2334 - 7.3.9.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4057	TK-4057	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products or kerosene

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1999	MM/DD/1999	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
625,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.8 – R13-2334M
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.8
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.8
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in

this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the

following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334 - 7.2.6.]

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

EWVI shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel for Group 1 or Group 2 storage vessels. This record shall be kept as long as the storage vessel retains Group 1 or Group 2 status and is in operation. For each Group 2 storage vessel, the owner or operator is not required to comply with any other provisions of 40 C.F.R. §§ 63.119 through 63.123 other than those required by this paragraph unless such vessel is part of an emissions average as described in 40 C.F.R. § 63.150.
[40 C.F.R. § 63.123(a) and 45CSR§34-2.1.; 45CSR13 - Permit R13-2334 - 7.3.3.]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI shall keep records and furnish reports as required by 40 C.F.R. § 60.115b paragraphs (a), (b), or (c) depending upon the control equipment installed to meet the requirements of 40 C.F.R. § 60.112b. EWVI shall keep copies of all reports and records required by this section, except for the record required by 40 C.F.R. § 60.115b(c)(1), for at least 2 years. The record required by 40 C.F.R. § 60.115b (c)(1) will be kept for the life of the control equipment.
[40 C.F.R. § 60.115b and 45CSR§16-2.1; 45CSR13 - Permit R13-2334 - 7.3.8.]

The following requirements apply:

(a) EWVI shall keep copies of all records required by 40 C.F.R. 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) For each storage vessel as specified in 40 C.F.R. § 60.110b(a), EWVI 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, for each storage vessel either with a design capacity greater than or equal to 151 m^3 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 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa, EWVI 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, for each storage vessel either with a design capacity greater than or equal to 151 m^3 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 m^3 but less than 151 m^3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa, EWVI 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) For each vessel storing a waste mixture of indeterminate or variable composition, EWVI 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 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 60.17); or

(iii) As measured by an appropriate method as approved by the Administrator.

(g) For each vessel equipped with a closed vent system and control device meeting the specification of 40 C.F.R. § 60.112b or with emissions reductions equipment as specified in 40 CFR 65.42(b)(4), (b)(5), (b)(6), or (c), EWVI is exempt from the requirements of paragraphs (c) and (d) of this section.

[40 C.F.R. § 60.116b and 45CSR§16-2.1; 45CSR13 - Permit R13-2334 - 7.3.9.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4060	TK-4060	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Internal floating roof; crude; mechanical shoe

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1999	MM/DD/1999	2012

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
5,040,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: efil FORMTEXT	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

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Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	N/A	See Section 2.0
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2 – Permit R13-2334V
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director.
[Permit R13-2334V – Section 7.2.1]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets,

slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed.
If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7

days prior to the refilling.
(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334V - 7.2.2.]

Testing:

N/A

Recordkeeping:

To determine compliance with VOC emission limits, EWVI 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 R13-2334V - 7.3.1.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

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

[45CSR13 - Permit R13-2334V - 7.3.2.; 45CSR§30-5.1.c.]

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

a) After installing control equipment in accordance with § 60.1l2b(a)(l) (fixed roof and internal floating root), 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 * 60.112b(a)(1) and * 60.113b(a)(l). This report shall be an attachment to the notification required by § 60.7(a)(3).
   (2) Keep a record of each inspection perfornled as required by § 60.113b (a)(l), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in * 60.113b(a)(2) are detected during the annual visual inspection required by * 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in * 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days ofthe inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of * 61.l12b(a)(l) or § 60.113b(a)(3) and list each repair made.

b) After installing control equipment in accordance with * 61.112b(a)(2) (external floating root), 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 § 60.112b(a)(2) and § 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by * 60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by * 60. l13b(b)(l), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.1l3b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by * 60.113b(b). Each record shall identify the storage vessel in which the measurement was perfonned and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.113b (b)(2) and (b)(3).

[NSPS, Subpart Kb; 40 CFR 60.115b and 45CSR 16-2.1; Permit R13-2334V – Section 7.3.4]

(a) The owner or operator shall keep copies of all records required by 40 C.F.R. 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 C.F.R. § 60.l10b(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 lSI 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 m' 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 m' 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 refmed 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 specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure detelmined 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 cutofffor controls as defined in 40 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 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 C.F .R. § 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.

[NSPS, Subpart Kb; 40 C.F.R. § 60.116b and 45CSR§16-2.1; Permit R13-2334V – Section 7.3.5]

Reporting:

N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4061	TK-4061	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Internal floating roof; crude; mechanical shoe

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2008	MM/DD/2008	2012

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
5,040,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

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Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	N/A	See Section 2.0
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2 – Permit R13-2334V
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director.
[Permit R13-2334V – Section 7.2.1]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets,

slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed.
If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7

days prior to the refilling.
(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334V - 7.2.2.]

Testing:

N/A

Recordkeeping:

To determine compliance with VOC emission limits, EWVI 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 R13-2334V - 7.3.1.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

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

[45CSR13 - Permit R13-2334V - 7.3.2.; 45CSR§30-5.1.c.]

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

a) After installing control equipment in accordance with § 60.1l2b(a)(l) (fixed roof and internal floating root), 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 * 60.112b(a)(1) and * 60.113b(a)(l). This report shall be an attachment to the notification required by § 60.7(a)(3).
   (2) Keep a record of each inspection perfornled as required by § 60.113b (a)(l), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in * 60.113b(a)(2) are detected during the annual visual inspection required by * 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in * 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days ofthe inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of * 61.l12b(a)(l) or § 60.113b(a)(3) and list each repair made.

b) After installing control equipment in accordance with * 61.112b(a)(2) (external floating root), 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 § 60.112b(a)(2) and § 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by * 60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by * 60. l13b(b)(l), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.1l3b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by * 60.113b(b). Each record shall identify the storage vessel in which the measurement was perfonned and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.113b (b)(2) and (b)(3).

[NSPS, Subpart Kb; 40 CFR 60.115b and 45CSR 16-2.1; Permit R13-2334V – Section 7.3.4]

(a) The owner or operator shall keep copies of all records required by 40 C.F.R. 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 C.F.R. § 60.l10b(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 lSI 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 m' 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 m' 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 refmed 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 specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure detelmined 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 cutofffor controls as defined in 40 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 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 C.F .R. § 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.

[NSPS, Subpart Kb; 40 C.F.R. § 60.116b and 45CSR§16-2.1; Permit R13-2334V – Section 7.3.5]

Reporting:

N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4062	TK-4062	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Internal floating roof; crude; mechanical shoe

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2008	MM/DD/2008	2012

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
5,040,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	N/A	See Section 2.0
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2 – Permit R13-2334V
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

__X__ 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.)

Monitoring:
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director.
[Permit R13-2334V – Section 7.2.1]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets,

slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed.
If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7

days prior to the refilling.
(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334V - 7.2.2.]

Testing:

N/A

Recordkeeping:

To determine compliance with VOC emission limits, EWVI 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 R13-2334V - 7.3.1.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

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

[45CSR13 - Permit R13-2334V - 7.3.2.; 45CSR§30-5.1.c.]

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

a) After installing control equipment in accordance with § 60.1l2b(a)(l) (fixed roof and internal floating root), 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 * 60.112b(a)(1) and * 60.113b(a)(l). This report shall be an attachment to the notification required by § 60.7(a)(3).
   (2) Keep a record of each inspection perfornled as required by § 60.113b (a)(l), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in * 60.113b(a)(2) are detected during the annual visual inspection required by * 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in * 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days ofthe inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of * 61.l12b(a)(l) or § 60.113b(a)(3) and list each repair made.

b) After installing control equipment in accordance with * 61.112b(a)(2) (external floating root), 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 § 60.112b(a)(2) and § 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by * 60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by * 60. l13b(b)(l), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.1l3b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by * 60.113b(b). Each record shall identify the storage vessel in which the measurement was perfonned and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.113b (b)(2) and (b)(3).

[NSPS, Subpart Kb; 40 CFR 60.115b and 45CSR 16-2.1; Permit R13-2334V – Section 7.3.4]

(a) The owner or operator shall keep copies of all records required by 40 C.F.R. 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 C.F.R. § 60.l10b(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 lSI 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 m' 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 m' 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 refmed 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 specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure detelmined 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 cutofffor controls as defined in 40 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 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 C.F .R. § 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.

[NSPS, Subpart Kb; 40 C.F.R. § 60.116b and 45CSR§16-2.1; Permit R13-2334V – Section 7.3.5]

Reporting:

N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
TK-4063	Tank 4063	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Internal floating roof tank with mechanical shoe, containing light crude oil with a vapor pressure less than or equal to 11.0 psia. Expected throughput is 10,000 bbl/day

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
2012	2012	2012

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
5,040,000 gal

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
---	153,300,000 gal	Continuous Operation

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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
		FORMTEXT	

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	N/A	12.27
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.).

See Section 2.0

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.

Applicable Requirement – 45 CSR 13
Limitations – Sections 7.1.1, 7.1.2 – Permit R13-2334V
Applicable Requirement – 40 CFR 60
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 16
Limitations – Section 7.1.7
Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 40 CFR 63
Limitations – N/A
Applicable Requirement – 45 CSR 34
Limitations – N/A

_X_ 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.)

Monitoring:
Compliance with the following requirements may be determined by visual inspection by the Director or a duly authorized representative of the Director.
[Permit R13-2334V – Section 7.2.1]

For each storage vessel as specified in 40 C.F.R. § 60.112b(a), EWVI 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 C.F.R. § 60.112b.

(a) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(1) (permanently affixed roof and internal floating roof), EWVI 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, EWVI 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, EWVI 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 C.F.R. § 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions EWVI will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) For vessels equipped with a double-seal system as specified in § 60.112b(a)(1)(ii)(B):

(i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or

(ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.

(4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed.
If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, EWVI shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3)(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(4) of this section is not planned and EWVI could not have known about the inspection 30 days in advance or refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(b) After installing the control equipment required to meet 40 C.F.R. § 60.112b(a)(2) (external floating roof), EWVI shall:

(1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.

(i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.

(ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.

(iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.

(2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:

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

(ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.

(iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.

(3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.

(4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in 40 C.F.R. § 60.113b(b)(4) (i) and (ii).

(5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.

(6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.

(i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.

(ii) For all the inspections required by paragraph (b)(6) of this section, EWVI shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and EWVI could not have known about the inspection 30 days in advance of refilling the tank, EWVI shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written

documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.

(c) For each source that is equipped with a closed vent system and control device as required in § 60.112b (a)(3) or (b)(2) (other than a flare), EWVI is exempt from § 60.8 of the General Provisions and shall meet the following requirements.

(1) Submit for approval by the Administrator as an attachment to the notification required by § 60.7(a)(1) or, if the facility is exempt from § 60.7(a)(1), as an attachment to the notification required by § 60.7(a)(2), an operating plan containing the information listed below.

(i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under 40 C.F.R. Part 60 subpart K, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 _C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

(ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).

(2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.

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

[40 C.F.R. § 60.113b and 45CSR§16-2.1.; 45CSR13 - Permit R13-2334V - 7.2.2.]

Testing:

N/A

Recordkeeping:

To determine compliance with VOC emission limits, EWVI 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 R13-2334V - 7.3.1.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

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

[45CSR13 - Permit R13-2334V - 7.3.2.; 45CSR§30-5.1.c.]

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

a) After installing control equipment in accordance with § 60.1l2b(a)(l) (fixed roof and internal floating root), 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 * 60.112b(a)(1) and * 60.113b(a)(l). This report shall be an attachment to the notification required by § 60.7(a)(3).
   (2) Keep a record of each inspection perfornled as required by § 60.113b (a)(l), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of

the control equipment (seals, internal floating roof, and fittings).

(3) If any of the conditions described in * 60.113b(a)(2) are detected during the annual visual inspection required by * 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.

(4) After each inspection required by § 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in * 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days ofthe inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of * 61.l12b(a)(l) or § 60.113b(a)(3) and list each repair made.

b) After installing control equipment in accordance with * 61.112b(a)(2) (external floating root), 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 § 60.112b(a)(2) and § 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by * 60.7(a)(3).

(2) Within 60 days of performing the seal gap measurements required by * 60. l13b(b)(l), furnish the Administrator with a report that contains:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.1l3b (b)(2) and (b)(3).

(3) Keep a record of each gap measurement performed as required by * 60.113b(b). Each record shall identify the storage vessel in which the measurement was perfonned and shall contain:

(i) The date of measurement.

(ii) The raw data obtained in the measurement.

(iii) The calculations described in § 60.113b (b)(2) and (b)(3).

[NSPS, Subpart Kb; 40 CFR 60.115b and 45CSR 16-2.1; Permit R13-2334V – Section 7.3.4]

(a) The owner or operator shall keep copies of all records required by 40 C.F.R. 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 C.F.R. § 60.l10b(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 lSI 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 m' 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 m' 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 refmed 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 specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure detelmined 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 cutofffor controls as defined in 40 C.F.R. §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 C.F.R. § 60.17); or

(ii) ASTM D323-82 or 94 (incorporated by reference -- see 40 C.F.R. § 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 C.F .R. § 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.

[NSPS, Subpart Kb; 40 C.F.R. § 60.116b and 45CSR§16-2.1; Permit R13-2334V – Section 7.3.5]

Reporting:

N/A

Are you in compliance with all applicable requirements for this emission unit? Yes

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4103	TK-4103	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1970	MM/DD/1970	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
127,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
4104	TK-4104	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fixed roof; heavy products

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/1970	MM/DD/1970	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
127,000 gallons

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Section 2.0	See Section 2.0	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data **See Section 2.0**		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

See Section 2.0

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement – 45 CSR 30
Limitations – N/A
Applicable Requirement – 45 CSR 13
Limitations – Section 7.1.1 – R13-2334M

__X__ 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.)

Monitoring:
N/A

Testing:
N/A

Recordkeeping:
To determine compliance with VOC emission limits, EWVI 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.]

To determine compliance with short-term and annual HAP emission limits, EWVI 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.

HAP Emissions (tpm or tpy) = [(Individual HAP %) x (Actual VOC emissions, obtained using monthly throughput records and AP-42 emission factors (tpm or tpy))/100

Compliance with the yearly limit shall be based on a 12-month rolling total.
[45CSR13 - Permit R13-2334 - 7.3.2.; 45CSR§30-5.1.c.]

Reporting:
N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
ADUFUG	ADU Fugitive Emissions (Equipment Leaks)	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Fugitive emissions associated with the Ammonia Destruction Unit (ADU).

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
2015	2015	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
N/A

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
N/A	N/A	N/A

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes __X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	0.08	0.34
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.).

EPA Protocol for Equipment Leak Emission Estimates

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.

Potentially applicable requirements:

State Regulations
1. 45 C.S.R. 04 To Prevent and Control the Discharge of Air Pollutants in the Open Air Which Causes or Contributes to an Objectionable Odor or Odors
2. 45 C.S.R. 11 Prevention of Air Pollution Emergency Episodes
3. 45 C.S.R. 13 Permits for Construction, Modification, Relocation & Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits & Procedures for Evaluation
4. 45 C.S.R. 16 Standards of Performance for New Stationary Sources Pursuant to 40 CFR Part 60
5. 45 C.S.R. 20 Good Engineering Practice as Applies to Stack Heights
6. 45 C.S.R. 22 Air Quality Management Fee Program
7. 45 C.S.R. 30 Requirements for Operating Permits

Federal Regulations
1. 40 CFR Part 60 Subpart A Standards of Performance for New Stationary Sources. General Provisions
2. 40 CFR Part 60 Subpart GGG-a Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006
3. 40 CFR Part 60 Subpart QQQ Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems
4. 40 CFR Part 60 Subpart J-a Standards of Performance for Petroluem Refineries for Which Construction, Reconstruction, or Modification Commenced After May 14, 2007.

___ 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.)

Monitoring:
The permittee shall record, track, repair, and re-monitor all leaks in excess of the internal leak definition. Pumps shall be monitored monthly, valves quarterly, unless difficult or unsafe to monitor.

Recordkeeping:
The permittee will follow the currently established tracking program newly added pumps and valves. Records will be kept for leaking components, attempts of repair, and dates of repair. As well as the recordkeeping requirements of 40 CFR 60 Subpart VVa.

Reporting:
The permittee will keep an electronic record of the Leak Detection And Repair (LDAR) data and report this data in the required semi-annual reports. EWVI will also comply with the reporting requirements of 40 CFR 60 Subpart VVa.

Testing:
The permittee will comply with the testing standards of 40 CFR 60 Subpart VVa.

Are you in compliance with all applicable requirements for this emission unit? Yes
If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
CDU	CDU	Emergency Flare

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Crude Distillation Unit

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
1972	1972	2012

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
803,000 bbls/mo.

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
1,000 bbl/hr	8,030,000 bbls/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X_ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: N/A	**Type and Btu/hr rating of burners:** N/A

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.
N/A

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
N/A	N/A	N/A	N/A

Page _____ of _____

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
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.).

Applicable Requirements
List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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. Applicable Requirement – 45 CSR 13 Limitations – Sections 6.1.1 – R13-2334V
__X__ 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.) **45 CSR 13** Recordkeeping: To determine compliance with the crude oil charge rate limits, EWVI shall keep daily records along with monthly and yearly totals of the amount of crude oil charged to the crude oil distillation unit. Compliance with the yearly limit shall be based on a 12-month rolling total. **[45CSR13 – Permit R13-2334V – 6.2.1]** Monitoring/Testing/Reporting: N/A
Are you in compliance with all applicable requirements for this emission unit? _X_Yes ___No If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
EPN 01	H-901	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
DHT Heater; refinery fuel gas/natural gas blend

Manufacturer:	**Model number:**	**Serial number:**
Zeeko Inc.	GISF-13 Round Flare	15046
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2005	MM/DD/2005	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
27.5 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
26,961 cf/hr	236.16 MMcf/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X__Yes ___ No	**If yes, is it?** ___ Indirect Fired _X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 27.5 MMBtu/hr	**Type and Btu/hr rating of burners:** Next Generation Ultra Low NOx Burner 27.5 MMBtu/hr

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.
Refinery Fuel Gas/Natural Gas Blend
Max Hourly Usage = 26,961 cf/hr
Max Annual Usage = 236.16 MMcf/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Refinery Fuel Gas/ Natural Gas Blend	0.016%	N/A	1,020 Btu/cf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.96	4.22
Nitrogen Oxides (NO_X)	0.69	3.01
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.18	0.79
Particulate Matter (PM_{10})	0.18	0.79
Total Particulate Matter (TSP)	0.18	0.79
Sulfur Dioxide (SO_2)	0.62	2.72
Volatile Organic Compounds (VOC)	0.28	1.20
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.). Emission factors were obtained from manufacturer's data (based on HHV of 1,160 Btu/scf).		

*For the purposes of Title V Permitting, it is assumed that $PM_{2.5}$=PM_{10}=TSP.

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.

Applicable Requirement - 45 CSR 2
Limitations – Sections 4.1.1, 4.1.3, 4.1.4, 4.1.7, 4.1.8, 4.1.9 - R13-2334M
Applicable Requirement - 45 CSR 10
Limitations – Sections 4.1.10, 4.1.11, 4.1.12, 4.1.13 - R13-2334M
Applicable Requirement - 45 CSR 13
Limitations – Sections 4.1.6, 4.1.27 - R13-2334M
Applicable Requirement – 45 CSR 16
Limitations – Sections 4.1.33, 4.1.34 – R13-2334M
Applicable Requirement – 45 CSR 34
Limitations – Sections 4.1.28, 4.1.29, 4.1.30, 4.1.31, 4.1.32 – R13-2334M

__X__ 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.)

45 CSR 2
Monitoring:
Visual emission checks of each emission point subject to an opacity limit shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using 40 CFR 60 Appendix A, Method 22. If natural gas is being combusted, the visual emissions checks shall be conducted monthly. If fuel oil is being combusted, the visual emissions checks shall be conducted weekly. If visible emissions are identified during the survey, or at any other time, EWVI shall take corrective action to minimize the emissions immediately. If during these checks, or at any other time, visible emissions are observed, a visible emission evaluation shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, the name of the observer, and any data required by 40 CFR 60 Appendix A, Method 22 or Method 9.
[45 CSR 13 - Permit R13-2334 - 4.2.1]

Testing:
N/A

Recordkeeping:
EWVI shall maintain a periodic exception report for each unit. Such reports shall include, but may not be limited to the date and time of start-ups and shutdowns. All such requirements, including notification by telephone, telefax, or other such method determined by the Director, shall be deemed to be satisfied when the reports are maintained on site for a period of no less than five (5) years and shall be made available upon request to the Director or his/her duly authorized representative.
[45 CSR 2-8.3.b.; 45 CSR 13 - Permit R13-2334 - 4.4.2]

EWVI shall maintain records of the operating schedule and the quantity of fuel consumed in each fuel burning unit monthly, at a minimum, but may record it more often at their discretion.
[45 CSR 2-8.3.c; 45 CSR 13 – Permit R13-2334 – 4.4.3]

Reporting:

EWVI shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in 45CSR§§2-3 and 4) as provided in one of the following subdivisions:

a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:
   1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and
   2. Excess opacity does not exceed 40%.
b. EWVI shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in 45CSR§2-9.3.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. EWVI shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:
   1. A detailed explanation of the factors involved or causes of the malfunction;
   2. The date and time of duration (with starting and ending times) of the period of excess emissions;
   3. An estimate of the mass of excess emissions discharged during the malfunction period;
   4. The maximum opacity measured or observed during the malfunction;
   5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
   6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45 CSR 2-9.3; 45 CSR 13 – Permit R13-2334 – 4.5.1]

The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment efficiency shall be reviewed by the Director. No person shall cause, suffer, allow or permit the addition of sulfur oxides as described above unless written approval for such addition is provided by the Director.
[45 CSR 2-4.4; 45CSR13 - Permit R13-2334 - 4.1.2]

45 CSR 10
Monitoring:
Compliance with the hydrogen sulfide concentration limit of 230 mg/dscm (0.10 gr/dscf) shall be demonstrated using a continuous emission monitoring system which shall comply with the following provisions of 40 CFR Part 60: Part 60.13(a), (c), (d)(1), (e)(2), (f), (g), (h), (i), (j), Part 60.105(a)(4), Part 60.106(e) part 60, Appendix A, Method 11, Part 60; Appendix B, Performance Specification 7.
[45 CSR 13 – Permit R13-2334 – 4.2.2]

EWVI shall demonstrate compliance with sections 3, 4 and 5 of 45CSR10 by testing and /or monitoring in accordance with one or more of the following: 40 CFR Part 60, Appendix A, Method 6, Method 15, continuous emissions monitoring systems (CEMS) or fuel sampling and analysis as set forth in an approved monitoring plan for each emission unit.
[45 CSR 10-8.2.c; 45CSR13 - Permit R13-2334 - 4.1.14]

Testing:
N/A

Recordkeeping:
EWVI shall maintain an on-site record of all required monitoring data as established in a monitoring plan pursuant to 45CSR 10-8.2.c. Such records shall be made available to the Director upon request. Records shall be retained on-site for a minimum of five years.
[45 CSR 10-8.3.a; 45 CSR 13 – Permit R13-2334 – 4.4.4]

EWVI shall maintain records of the operating schedule and the quantity and quality of fuel consumed in each unit in a manner specified by the Director. Such records shall be maintained on-site and made available to the Director upon request.
[45 CSR 10-8.3.c; 45 CSR 13 - Permit R13-2334 – 4.4.5]

Reporting:
EWVI shall submit a periodic exception report to the Director, in a manner specified by the Director. Such an exception report shall provide details of all excursions outside the range of measured emissions or monitored parameters established in an approved monitoring plan and shall include the time of the excursion, the magnitude of the excursion, the duration of the excursion, the cause of the excursion, and the corrective action taken.
[45 CSR 10-8.3.b; 45 CSR 13 – Permit R13-2334 – 4.5.2]

Due to unavoidable malfunction of equipment or inadvertent fuel shortages, emissions exceeding those provided for in 45CSR10 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction or fuel shortage. In cases of major equipment failure or extended shortages of conforming fuels, additional time periods may be granted by the Director provided a corrective program has been submitted by EWVI and approved by the Director.
[45 CSR 10-9.1 and 45 CSR 13 - Permit R13-2334 - 4.1.5]

45 CSR 13
Monitoring:
EWVI shall monitor the amount of fuel gas consumed in H-901 using flow meters.
[45 CSR 13 - Permit R13-2334 - 4.2.5]

Testing:
N/A

Recordkeeping:
EWVI shall document the frequency, length of time, amount of fuel oil consumed, and estimate of emissions during DOT maintenance and periods of natural gas curtailment in which fuel oil was combusted. EWVI shall keep records of the sulfur content of all fuel oil received for the purpose of combustion. Each batch of fuel oil shall have its sulfur content determined by test method, ASTM D4294. This information, along with appropriate emission factors from *EPA's AP-42 Fifth Edition, Volume I, Supplement E, Chapter 1.3*, may be used to estimate emissions.
[45 CSR 13 – R13-2334 – 4.4.1]

EWVI shall keep monthly records of the amount of refinery fuel gas consumed by H-901. To determine compliance with NO_x, SO_2, VOC, and CO emissions limits for the H-901, emission factors from manufacturer's specifications along with fuel gas consumption may be used. To determine compliance with the PM emission limits, AP-42 emission factors Table 1.4.-2 (1998) along with fuel gas consumption data may be used. Said records shall be maintained on-site for a period of five (5) years. Said records shall be made available to the Director of the Division of Air Quality or his/her duly authorized representative upon request and shall be certified by a responsible official upon the submittal.
[45 CSR 13 - Permit R13-2334 -4.4.13]

EWVI shall maintain continuous record for the H_2S concentration in the refinery fuel gas consumed by H-901. Said records shall be maintained on-site for a period of five (5) years. Said records shall be made available to the Director of the Division of Air Quality or his/her duly authorized representative upon request and shall be certified by a responsible official upon the submittal.
[45 CSR 13 - Permit R13-2334 - 4.4.14]

Reporting:
N/A

45 CSR 16
Monitoring:
Compliance with the hydrogen sulfide concentration limit for H-901 of permit condition 4.1.34. shall be demonstrated using the continuous monitor as follows:

(a) An instrument for continuous monitoring and recording the concentration (dry basis) of H_2S in fuel gases before being burned in any fuel gas combustion device.
   - (i) The span value for this instrument is 425 mg/dscm H_2S.
   - (ii) Fuel gas combustion devices having a common source of fuel gas may be monitored at only one location if monitoring at this location accurately represents the concentration of H_2S in the fuel gas being burned.
   - (iii) The performance evaluations for this H_2S monitor under 40 CFR 60.13(c) shall use Performance Specification 7. Method 11, 15, 15A, or 16 shall be used for conducting the relative accuracy evaluations.

[40 C.F.R.§§ 60.105(a)(4)(i), (ii), and (iii) and 45CSR§16-4.1; 45CSR13 - Permit R13-2334 - 4.2.3]

Testing:
The facility must conduct performance tests required in 40 C.F.R. §60.8 for H-901, EWVI shall use as reference

methods and procedures the test methods in Appendix A of 40 C.F.R. 60 or other methods and procedures as specified in this section, except as provided in 40 C.F.R. § 60.8(b).
[40 C.F.R. §60.106(a) and 45CSR§16-4.1; 45CSR13 - Permit R13-2334 - 4.3.6]

The facility shall demonstrate compliance with the H_2S standard in 40 C.F.R. § 60.104(a)(1) for H-901 as follows:

Where emissions are monitored by 40 C.F.R. § 60.105(a)(3), compliance with 40 C.F.R. § 60.104(a)(1) shall be determined using Method 6 or 6C and Method 3 or 3A. A 1-hour sample shall constitute a run. Method 6 samples shall be taken at a rate of approximately 2 liters/min. The ppm correction factor (Method 6) and the sampling location in paragraph (f)(1) of the section apply. Method 4 shall be used to determine the moisture content of the gases. The sampling point for Method 4 shall be adjacent to the sampling point for Method 6 or 6C.
[40 C.F.R. § 60.106(e)(2) and 45CSR§16-4.1; 45CSR13 – Permit R13-2334 - 4.3.7]

Recordkeeping:
For any periods for which sulfur dioxide or oxides emissions data are not available, EWVI shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.
[40 C.F.R. § 60.107(d) and 45CSR§16-4.1; 45CSR13 – Permit R13-2334 - 4.4.12]

Reporting:
For any periods for which sulfur dioxide or oxides emissions data are not available for H-901, EWVI shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.
[40 C.F.R. § 60.107(d) and 45CSR§16-4.1;45CSR13 - Permit R13-2334 - 4.5.4.]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
EPN 03	H-1101	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Hydrogen Plant Heater; natural gas

Manufacturer:	**Model number:**	**Serial number:**
Callidus	Not Available	B0706994B
Construction date:	**Installation date:**	**Modification date(s):**
MM/DD/2005	MM/DD/2005	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
38.8 MMBtu/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
38,039 cf/hr	333 MMcf/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X__Yes ___ No	**If yes, is it?** ___ Indirect Fired _X__Direct Fired
Maximum design heat input and/or maximum horsepower rating: 38.8 MMBtu/hr	**Type and Btu/hr rating of burners:** Next Generation Ultra Low NOx Burner 38.8 MMBtu/hr

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.
Natural Gas
Max Hourly Usage = 38,039 cf/hr
Max Annual Usage = 333 MMcf/yr

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

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	20 gr/100 cf	N/A	1,020 Btu/cf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	0.39	1.70
Nitrogen Oxides (NO_X)	1.55	6.80
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)	0.39	1.70
Particulate Matter (PM_{10})	0.39	1.70
Total Particulate Matter (TSP)	0.39	1.70
Sulfur Dioxide (SO_2)	0.01	0.06
Volatile Organic Compounds (VOC)	0.19	1.25
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.). Emissions factors were obtained from manufacturer's guarantees.		

*For the purposes of Title V Permitting, it is assumed that $PM_{2.5}$=PM_{10}=TSP.

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.

Applicable Requirement - 45 CSR 2
Limitations – Sections 4.1.1, 4.1.3, 4.1.4, 4.1.7, 4.1.8, 4.1.9 - R13-2334M
Applicable Requirement - 45 CSR 10
Limitations – Sections 4.1.10, 4.1.11 - R13-2334M
Applicable Requirement - 45 CSR 13
Limitations – Sections 4.1.6, 4.1.27, 4.1.35 - R13-2334M
Applicable Requirement – 45 CSR 34
Limitations – Sections 4.1.28, 4.1.29, 4.1.30, 4.1.31, 4.1.32 – R13-2334M

__X__ 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.)

45 CSR 2
Monitoring:
Visual emission checks of each emission point subject to an opacity limit shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using 40 CFR 60 Appendix A, Method 22. If natural gas is being combusted, the visual emissions checks shall be conducted monthly. If fuel oil is being combusted, the visual emissions checks shall be conducted weekly. If visible emissions are identified during the survey, or at any other time, EWVI shall take corrective action to minimize the emissions immediately. If during these checks, or at any other time, visible emissions are observed, a visible emission evaluation shall be conducted in accordance with 40 CFR 60 Appendix A, Method 9. A Method 9 evaluation shall not be required if the visible emission condition is corrected in a timely manner. A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s), if any, was/were taken, the name of the observer, and any data required by 40 CFR 60 Appendix A, Method 22 or Method 9.
[45 CSR 13 - Permit R13-2334 - 4.2.1]

Testing:
N/A

Recordkeeping:
EWVI shall maintain a periodic exception report for each unit. Such reports shall include, but may not be limited to the date and time of start-ups and shutdowns. All such requirements, including notification by telephone, telefax, or other such method determined by the Director, shall be deemed to be satisfied when the reports are maintained on site for a period of no less than five (5) years and shall be made available upon request to the Director or his/her duly authorized representative.
[45 CSR 2-8.3.b.; 45 CSR 13 - Permit R13-2334 - 4.4.2]

EWVI shall maintain records of the operating schedule and the quantity of fuel consumed in each fuel burning unit monthly, at a minimum, but may record it more often at their discretion.
[45 CSR 2-8.3.c; 45 CSR 13 – Permit R13-2334 – 4.4.3]

Reporting:
EWVI shall report to the Director any malfunction of such unit or its air pollution control equipment which results in any excess particulate matter emission rate or excess opacity (i.e., emissions exceeding the standards in 45CSR§§2-3

and 4) as provided in one of the following subdivisions:

a. Excess opacity periods meeting the following conditions may be reported on a quarterly basis unless otherwise required by the Director:
   1. The excess opacity period does not exceed thirty (30) minutes within any 24-hour period; and
   2. Excess opacity does not exceed 40%.
b. EWVI shall report to the Director any malfunction resulting in excess particulate matter or excess opacity, not meeting the criteria set forth in 45CSR§2-9.3.a, by telephone, telefax, or e-mail by the end of the next business day after becoming aware of such condition. EWVI shall file a certified written report concerning the malfunction with the Director within thirty (30) days providing the following information:
   1. A detailed explanation of the factors involved or causes of the malfunction;
   2. The date and time of duration (with starting and ending times) of the period of excess emissions;
   3. An estimate of the mass of excess emissions discharged during the malfunction period;
   4. The maximum opacity measured or observed during the malfunction;
   5. Immediate remedial actions taken at the time of the malfunction to correct or mitigate the effects of the malfunction; and
   6. A detailed explanation of the corrective measures or program that will be implemented to prevent a recurrence of the malfunction and a schedule for such implementation.

[45 CSR 2-9.3; 45 CSR 13 – Permit R13-2334 – 4.5.1]

The addition of sulfur oxides to a combustion unit exit gas stream for the purpose of improving emissions control equipment efficiency shall be reviewed by the Director. No person shall cause, suffer, allow or permit the addition of sulfur oxides as described above unless written approval for such addition is provided by the Director.
[45 CSR 2-4.4; 45CSR13 - Permit R13-2334 - 4.1.2]

45 CSR 10
Monitoring:
N/A

Testing:
N/A

Recordkeeping:
N/A

Reporting:
Due to unavoidable malfunction of equipment or inadvertent fuel shortages, emissions exceeding those provided for in 45CSR10 may be permitted by the Director for periods not to exceed ten (10) days upon specific application to the Director. Such application shall be made within twenty-four (24) hours of the equipment malfunction or fuel shortage. In cases of major equipment failure or extended shortages of conforming fuels, additional time periods may be granted by the Director provided a corrective program has been submitted by EWVI and approved by the Director.
[45 CSR 10-9.1 and 45 CSR 13 - Permit R13-2334 - 4.1.5]

45 CSR 13
Monitoring:
EWVI shall monitor the amount of natural gas consumed in H-1101 using flow meters.
[45CSR13 -Permit R13-2334 - 4.2.4]

Testing:
N/A

Recordkeeping:
Recordkeeping:
EWVI shall document the frequency, length of time, amount of fuel oil consumed, and estimate of emissions during DOT maintenance and periods of natural gas curtailment in which fuel oil was combusted. EWVI shall keep records of the sulfur content of all fuel oil received for the purpose of combustion. Each batch of fuel oil shall have its sulfur content determined by test method, ASTM D4294. This information, along with appropriate emission factors from *EPA's AP-42 Fifth Edition, Volume I, Supplement E, Chapter 1.3*, may be used to estimate emissions.
[45 CSR 13 – R13-2334 – 4.4.1]

EWVI shall keep monthly records of the amount of natural gas consumed by H-1101. To determine compliance with the NO_x, SO_2, and CO emission limits for H-1101, EWVI may use manufacturer's specifications and natural gas consumption. To determine compliance with the VOC and PM emission limit, natural gas consumption data and AP-42 Table 1.4-2 (1998) using an average gas high heating value (HHV) of 1,020 BTU/scf may be used. Said records shall be maintained on-site for a period of five (5) years. Said records shall be made available to the Director of the Division of Air Quality or his/her duly authorized representative upon request and shall be certified by a responsible official upon the submittal.
[45CSR13 -Permit R13-2334 - 4.4.15]

Reporting:
N/A

45 CSR 34
Monitoring:
N/A

Testing:
The facility must conduct initial performance test for CO for H-901 and H-1101 according to 40 C.F.R. §§63.7(c), (d), and (h), 40 C.F.R. § 63.7510(c), Table 5 of Subpart DDDDD for H-901 and H-1101.
[40 C.F.R.§§ 63.7520(a), (b) and 45CSR§34-4.1; 45CSR13 - Permit R13-2334 - 4.3.4]

The facility must complete annual performance for carbon monoxide according to 40 C.F.R. § 63.7520. Each annual performance test for H-901 and H-1101 must be conducted between 10 and 12 months after previous performance test.
[40 C.F.R. § 63.7515(e) and 45CSR§34-4.1; 45CSR13 - Permit R13-2334 - 4.3.5]

Recordkeeping:
Heater H-901 and H-1101 must keep records according to paragraphs (a) through (c) of this section.

a. A copy of each notification and report that you submitted to comply with 40 CFR 63, Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).
b. The records in 40 CFR 63(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
c. Records of performance tests, fuel analyses, or other compliance demonstrations, performance evaluations, and opacity observations as required in 40 CFR 63.10(b)(2)(viii).

[40 C.F.R. §§ 63.7555(a)(1), (2), and (3) and 45CSR§34-4.1; 45CSR13 - Permit R13-2334 -4.4.16]

Reporting:
EWVI must submit all of the notifications in 40 C.F.R. §§ 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 40 C.F.R. §§ 63.9(b) through (h) that apply to the facility by the dates specified in these sections.
[40 C.F.R.§ 63.7545(a) and 45CSR§34-4.1; 45CSR13 - R13-2334 - 4.5.5]

EWVI must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.
[40 C.F.R. § 63.7545(d) and 45CSR§34-4.1; 45CSR13 – Permit R13-2334 - 4.5.6.]

EWVI must conduct an initial compliance demonstration as specified in 40 C.F.R. § 63.7530(a), EWVI must submit a Notification of Compliance Status according to 40 C.F.R. § 63.9(h)(2)(ii). For each initial compliance demonstration, EWVI must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to 40 C.F.R. §63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in 40 C.F.R. §§ 63.7545(e)(1) through (9), as applicable.
[40 C.F.R. § 63.7545(e) and 45CSR§34-4.1; 45CSR13 -Permit R13-2334 - 4.5.7.]

The compliance report must contain the information required in 4.5.10.(a) through (k).

a. Company name and address.
b. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
c. Date of report and beginning and ending dates of the reporting period.

d. The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.
e. The summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.
f. A signed statement indicating that you burned no new types of fuel. Or, if the facility did burn a new type of fuel, you must submit the calculation of chlorine input, using Equation 5 of 40 CFR 63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or EWVI must submit the calculation of HCl emissions rate using Equation 9 of 40 CFR 63.7530 that demonstrates the source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If the source burned a new type of fuel, EWVI must submit the calculation of TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or EWVI must submit the calculation of TSM emission rate using Equation 10 of 40 CFR 63.7530 that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If the source burned a new type of fuel, you must submit the calculation of mercury input, using Equation 7 of 40 CFR 63.7530, that demonstrates that the source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or EWVI must submit the calculation of mercury emission rate using Equation 11 of 40 CFR 63.7530 that demonstrates that the source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).
g. If EWVI wishes to burn a new type of fuel and EWVI cannot demonstrate compliance with the maximum chlorine input operating limit using Equation 5 of 40 CFR 63.7530, the maximum TSM input operating limit using Equation 6 of 40 CFR 63.7530, or the maximum mercury input operating limit using Equation 7 of 40 CFR 63.7530, you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.
h. The hours of operation for each boiler and process heater that is subject to an emission limit for each calendar month within the semiannual reporting period. This requirement applies only to limited use boilers and process heaters.
i. If EWVI had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in 40 CFR 63.10(d)(5)(i).
j. If there are no deviations from any emission limits or operating limits in 40 CFR 63, Subpart DDDDD, that apply to the source, and there are no deviations from the requirements for work practice standards in Subpart DDDDD, a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.
k. If there were no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in 40 CFR 63.8(c)(7), a statement that there were no periods during which the CMSs were out of control during the reporting period.

[40 C.F.R. § 63.7550(c) and 45CSR§34-4.1; 45CSR13 - Permit R13-2334 - 4.5.8]

If EWVI operates a new gaseous fuel unit that is subject to the work practice standard specified in Table 1 to 40 C.F.R. 63, Subpart DDDDD, and EWVI intends to use a fuel other than natural gas or equivalent to fire the affected unit, EWVI must submit a notification of alternative fuel use within 48 hours of the declaration of a period of natural gas curtailment or supply interruption, as defined in 40 C.F.R. §63.7575. The notification must include the information specified in 4.5.11 (a) through (e).

a. Company name and address.
b. Identification of the affected unit.
c. Reason EWVI is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began.
d. Types of alternative fuel that you intend to use.
e. Dates when the alternative fuel use is expected to begin and end.

[40 C.F.R. § 63.7550(g) and 45CSR§34-4.1; 45CSR13 - Permit R13-2334 - 4.5.9]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
ISOM	ISOM Unit	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):

The Isomerization (ISOM) Unit is a fixed bed reactor unit for benzene reduction. The ISOM unit helps to reduce the benzene concentration of the light to intermediate Naphthas coming from the Naphtha Splitter. The ISOM unit has fugitive emissions only.

Manufacturer:	**Model number:**	**Serial number:**
Construction date: 2012	**Installation date:** 2012	**Modification date(s):** N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):

21.6 MMgal/yr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
2,466 gal/hr	21.6 MMgal/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes __**X**_ No	**If yes, is it?** ___ Indirect Fired ___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. NA

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

Page _____ of _____

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	-	3.72
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Hexane	-	0.037
Benzene	-	0.067
IsoOctane	-	0.149
Toluene	-	0.260
Ethylbenzene	-	0.052
Xylene	-	0.260
Isopropyl Benzene	-	0.019
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.).

The methodology for calculating these emissions was taken from the Protocol for Equipment Leak Emission Estimates (EPA-453/r-95-017, November 1995) Table 2-10.

The screening value (SV) for each non leaking component was 1 ppm less than the leak definition of 500 ppm for valves and 2,000 ppm for pumps.

The screening value for all leaking components was 20,000 ppm.

HAP speciation for the ISOM Unit is taken from TANKS 4.09d for gasoline.

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> 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.

Applicable Requirement –
Limitations and Standards –Section 6.1.3, 6.1.5, 6.1.6 - Permit No. R13-2334V
Applicable Requirement –
Limitations and Standards –Section 8.0 - Permit No. R13-2334V

_X_ 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.)

<u>Monitoring:</u>
Reporting, Recording, Tracking, Repairing and Remonitoring Leaks of Valves and Pumps. The permittee shall record, track, repair and re-monitor all leaks in excess of the internal leak definitions.
[Civil Decree No. 3:03CV1l40IOS Paragraph V.I8.F.; Permit R13-2334V – Section 8.2.1]

LDAR Monitoring Frequency

i. Pumps. The permittee shall monitor pumps on a monthly basis.
ii. Valves. The permittee shall monitor valves -- other than difficult to monitor or unsafe to monitor valves -- on a quarterly basis.

[Civil Decree No. 3:03CV1140IOS Paragraph V.I8.H.; Permit R13-2334V – Section 8.2.2]

Calibration/Calibration Drift Assessment

i. Calibration. The permittee shall conduct all calibrations of LDAR monitoring equipment using methane as the calibration gas, in accordance with 40 C.F.R. Part 60, EPA Reference Test Method 21.
ii. Calibration Drift Assessment. The permittee shall conduct calibration drift assessments of LDAR monitoring equipment at the end of each monitoring shift, at a minimum. The permittee shall conduct the calibration drift assessment using, at a minimum, a 500 ppm calibration gas. If any calibration drift assessment after the initial calibration shows a negative drift of more than 10% from the previous calibration, the permittee shall re-monitor all valves that were monitored since the last calibration that had a reading greater than 100 ppm and shall re-monitor all pumps that were monitored since the last calibration that had a reading greater than 500 ppm.

[Civil Decree No. 3:03CV114010S Paragraph V.18.M.; Permit R13-2334V – Section 8.2.3]

LDAR Audits. The permittee shall implement at the facility the Refinery audits set forth in the following paragraphs to ensure compliance with all applicable LDAR requirements. The LDAR audits shall include, but not be limited to, comparative monitoring, records review, tagging, data management, and observation of the LDAR technicians' calibration and monitoring techniques.

i. Third-Party Audits. The permittee shall retain a contractor(s) to perform a third-party audit of the refinery's LDAR program at least once every four years
ii. Internal Audits. The permittee shall conduct internal audits of the LDAR program. An internal audit of the refinery shall be held every four years.
iii. To ensure that an audit at the refinery occurs every two years, third-party and internal audits shall be separated by two years.
iv. Alternative. As an alternative to the internal audit, the permittee may elect to retain third-parties to

undertake the internal audit, provided that an audit of the facility occurs every two (2) years.
[Civil Decree No. 3:03CV1140IOS Paragraph V.I8.C.; Permit R13-2334V – Section 8.2.4]

If the results of any of the audits conducted at the facility identify any areas of non-compliance, the permittee shall implement, as soon as practicable, all steps necessary to correct the area(s) of noncompliance, and to prevent, to the extent practicable, a recurrence of the cause of the noncompliance.
The permittee shall retain the audit reports generated during the audits and shall maintain a written record of the corrective actions taken at the facility in response to any deficiencies identified in any audits.
[Civil Decree No. 3:03CV114010S Paragraph V.I8.D.; Permit R13-2334V – Section 8.2.4]

Testing:
For affected facilities subject to the standards in §§ 60.482-la through 60.482-1 la, 60.483a, and 60.484a, the permit shall determine compliance with the standards according to the test methods and procedures provided in §60.485a.
[NSPS, Subpart VVa; §60.485a; Permit R13-2334V – Section 8.3.1]

Recordkeeping:
To determine compliance with the crude oil charge rate limits set forth in Section 6.1.1., the permittee shall keep daily records along with monthly and yearly totals of the amount of crude oil charged to the crude oil distillation unit. Compliance with the yearly limit shall be based on a 12-month rolling total.
[Permit R13-2334V – Section 6.2.1]

To determine compliance with VOC fugitive emission rate limits set forth in Section 6.1.2., 6.1.4., 6.1.5., and the internal leak definitions set forth in Section., 6.1.3, the permittee shall comply with the requirements of 40CFR60 Subpart VV and apply the following Leak Detection and Repair (LDAR) program enhancements:

a. Emission Estimates. The pennittee may use an enhanced LDAR program for controlling and estimating emissions on a monthly and yearly basis for the Solvent Dewaxing Unit. The pennittee may use EPA's Correlation Approach, published in EPA's Protocol for Equipment Leak Emission Estimates, with measured screening values and hours of operation to determine compliance with the emission limits.

[Permit R13-2334V – Section 6.2.2]

Adding New Valves and Pumps. The permittee shall establish a tracking program for maintenance records (e.g., a Management of Change program) to ensure that valves and pumps added to the facility during maintenance and construction are integrated into the LDAR program.
[Civil Decree No. 3:03CV114010S Paragraph V.I8.L.; Permit R13-2334V – Section 8.4.1]

When a leak is detected, the following requirements apply:

i. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.
ii. The identification on a valve may be removed after it has been monitored for 2 successive months and no leak has been detected during those 2 months.
iii. The identification on equipment, except on a valve, may be removed after it has been repaired.

[40 CFR § 60.486(b); Permit R13-2334V – Section 8.4.2]

When a leak has been detected, the following information shall be recorded in a log and kept for 2 years in a readily accessible location:

i. The instrument and operator identification numbers and the equipment identification number.
ii. The date the leak was detected and the dates of each attempt to repair the leak.
iii. Repair methods applied in each attempt to repair the leak.
iv. "Above 10,000" if the maximum instrument reading measured after each repair attempt is equal to or greater than 10,000 ppm.
v. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days.

viii. Dates of process unit shutdowns that occur while the equipment is unrepaired.
ix. The date of successful repair of the leak.

[40 CFR § 60.486(c); Permit R13-2334V – Section 8.4.3]

The following information shall be recorded in a log that is kept in a readily accessible location:

i. A list of identification numbers.
ii. A list of identification numbers for equipment that are designated for no detectable emissions. This list shall be signed by the owner or operator.
iii. A list of equipment identification numbers for pressure relief valves.
iv. The dates of each compliance test.
v. The background level measured during each compliance test.
vi. The maximum instrument reading measured at the equipment during each compliance test.
vii. A list of identification numbers for equipment in vacuum service.
viii. A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr, a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr. [40 CFR § 60.486(e)].
ix. For all valves and pumps designated as unsafe-to-monitor or difficult-to-monitor:
    a. A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to monitor, and the plan for monitoring each valve or pump.
    b. A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

[40 CFR § 60.486(f); Permit R13-2334V – Section 8.4.4]

Each owner or operator subject to the provision of NSPS, Subpart VVa shall comply with the recordkeeping requirements of this section.

[NSPS, Subpart VVa; § 60.486a; Permit R13-2334V – Section 8.4.5]

<u>Reporting:</u>

Electronic Monitoring, Storing, and Reporting of LDAR Data

i. Electronic Storing and Reporting of LDAR Data. The facility will maintain an electronic database (e.g., EXCEL spreadsheet) for storing and reporting LDAR data. The electronic database shall include data identifying the date and time of the monitored event, and the operator and instrument used in the monitored event.
ii. Electronic Data ollectiOll During LDAR Monitoring and ransfer Thereafter. The permittee shall use data loggers and/or electronic data collection devices during all LDAR monitoring. The permittee, or its designated contractor, shall use its/their best efforts to transfer, by the end of the next business day, electronic data from electronic data logging devices to the electronic database listed above. For all monitoring events in which an electronic data collection device is used, the collected monitoring data shall include a time and date stamp. The permittee may use paper logs where necessary or more feasible (e.g., small rounds, re-monitoring, or when data loggers are not available or broken), and shall record, at a minimum, the identification of the technician undertaking the monitoring, the date, and the identification of the monitoring equipment. The permittee shall use its best efforts to transfer any manually recorded monitoring data to the electronic database within seven days of monitoring.

[Civil Decree No. 3:03CV114010S Paragraph V.18.1.; Permit 13R-2334V – Section 8.5.1]

QA/QC of LDAR Data - The permittee shall ensure that monitoring data provided to the permittee by its contractors is reviewed for QA/QC before the contractor submits the data to the permittee. At least once per calendar quarter, the permittee shall perform QA/QC of the contractor's monitoring data which shall include, but not be limited to, number of components monitored per technician, time between monitoring events, and abnormal data patterns.

[Civil Decree No. 3:03CV114010S Paragraph V.18.J.; Permit R13-2334V – Section 8.5.2]

The permittee shall submit semiannual reports to the Administrator beginning six months after the initial startup date. All semiannual reports shall include the following information:

i. Process unit identification.
ii. For each month during the semiannual reporting period,

a. Number of valves for which leaks were detected.
b. Number of valves for which leaks were not repaired.
c. Number of pumps for which leaks were detected.
d. Number of pumps for which leaks were not repaired.
e. Number of compressors for which leaks were detected.
f. Number of compressors for which leaks were not repaired.
g. The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

iii. Dates of process unit shutdowns which occurred within the semiannual reporting period.

iv. Revisions to items reported in initial report if changes have occurred since the initial report or subsequent revisions to the initial report.

[40 CFR § 60.487(c); Permit R13-2334V – Section 8.5.3]

Each owner or operator subject to the provision of NSPS, Subpart VVa shall comply with the reporting requirements of §60.487a.
[NSPS, Subpart Vva; §60.487a; Permit R13-2334V – Section 8.5.4]

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
NS-FUG	Naphtha Splitter Fugitives (Equipment Leaks)	N/A

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Equipment leak fugitive emissions from the Naphtha Splitter

Manufacturer:	**Model number:**	**Serial number:**
N/A	N/A	N/A
Construction date:	**Installation date:**	**Modification date(s):**
2011	2011	N/A

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
N/A

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
N/A	N/A	Continuous Operation

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating:	**Type and Btu/hr rating of burners:**

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

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)		
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)	0.18	0.79
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.).

EPA Protocol for Equipment Leak Emission Estimates

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.

NS-FUG:
Civil Decree No. 3:03CV114010S, Paragraph V.18
40 CFR 60 Subpart VVa
Construction Permit R13-2334V, Section 8

_X_ 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.)

Monitoring:
Reporting, Recording, Tracking, Repairing and Remonitoring Leaks of Valves and Pumps. The permittee shall record, track, repair and re-monitor all leaks in excess of the internal leak definitions.
[Civil Decree No. 3:03CV1l40IOS Paragraph V.I8.F.; Permit R13-2334V – Section 8.2.1]

LDAR Monitoring Frequency

i. Pumps. The permittee shall monitor pumps on a monthly basis.
ii. Valves. The permittee shall monitor valves -- other than difficult to monitor or unsafe to monitor valves -- on a quarterly basis.

[Civil Decree No. 3:03CV1140IOS Paragraph V.I8.H.; Permit R13-2334V – Section 8.2.2]

Calibration/Calibration Drift Assessment

i. Calibration. The permittee shall conduct all calibrations of LDAR monitoring equipment using methane as the calibration gas, in accordance with 40 C.F.R. Part 60, EPA Reference Test Method 21.
ii. Calibration Drift Assessment. The permittee shall conduct calibration drift assessments of LDAR monitoring equipment at the end of each monitoring shift, at a minimum. The permittee shall conduct the calibration drift assessment using, at a minimum, a 500 ppm calibration gas. If any calibration drift assessment after the initial calibration shows a negative drift of more than 10% from the previous calibration, the permittee shall re-monitor all valves that were monitored since the last calibration that had a reading greater than 100 ppm and shall re-monitor all pumps that were monitored since the last calibration that had a reading greater than 500 ppm.

[Civil Decree No. 3:03CV114010S Paragraph V.18.M.; Permit R13-2334V – Section 8.2.3]

LDAR Audits. The permittee shall implement at the facility the Refinery audits set forth in the following paragraphs to ensure compliance with all applicable LDAR requirements. The LDAR audits shall include, but not be limited to, comparative monitoring, records review, tagging, data

management, and observation of the LDAR technicians' calibration and monitoring techniques.

i. Third-Party Audits. The permittee shall retain a contractor(s) to perform a third-party audit of the refinery's LDAR program at least once every four years
ii. Internal Audits. The permittee shall conduct internal audits of the LDAR program. An internal audit of the refinery shall be held every four years.
iii. To ensure that an audit at the refinery occurs every two years, third-party and internal audits shall be separated by two years.
iv. Alternative. As an alternative to the internal audit, the permittee may elect to retain third-parties to undertake the internal audit, provided that an audit of the facility occurs every two (2) years.

[Civil Decree No. 3:03CV1140IOS Paragraph V.I8.C.; Permit R13-2334V – Section 8.2.4]

If the results of any of the audits conducted at the facility identify any areas of non-compliance, the permittee shall implement, as soon as practicable, all steps necessary to correct the area(s) of noncompliance, and to prevent, to the extent practicable, a recurrence of the cause of the noncompliance.
The permittee shall retain the audit reports generated during the audits and shall maintain a written record of the corrective actions taken at the facility in response to any deficiencies identified in any audits.
[Civil Decree No. 3:03CV114010S Paragraph V.I8.D.; Permit R13-2334V – Section 8.2.4]

Testing:
For affected facilities subject to the standards in §§ 60.482-la through 60.482-1 la, 60.483a, and 60.484a, the permit shall determine compliance with the standards according to the test methods and procedures provided in §60.485a.
[NSPS, Subpart VVa; §60.485a; Permit R13-2334V – Section 8.3.1]

Recordkeeping:
Adding New Valves and Pumps. The permittee shall establish a tracking program for maintenance records (e.g., a Management of Change program) to ensure that valves and pumps added to the facility during maintenance and construction are integrated into the LDAR program.
[Civil Decree No. 3:03CV114010S Paragraph V.I8.L.; Permit R13-2334V – Section 8.4.1]

When a leak is detected, the following requirements apply:

i. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.
ii. The identification on a valve may be removed after it has been monitored for 2 successive months and no leak has been detected during those 2 months.
iii. The identification on equipment, except on a valve, may be removed after it has been repaired.

[40 CFR § 60.486(b); Permit R13-2334V – Section 8.4.2]

When a leak has been detected, the following information shall be recorded in a log and kept for 2 years in a readily accessible location:

i. The instrument and operator identification numbers and the equipment identification number.
ii. The date the leak was detected and the dates of each attempt to repair the leak.
iii. Repair methods applied in each attempt to repair the leak.
iv. "Above 10,000" if the maximum instrument reading measured after each repair attempt is equal to or greater than 10,000 ppm.
v. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days.
viii. Dates of process unit shutdowns that occur while the equipment is unrepaired.
ix. The date of successful repair of the leak.

[40 CFR § 60.486(c); Permit R13-2334V – Section 8.4.3]

The following information shall be recorded in a log that is kept in a readily accessible location:

i. A list of identification numbers.
ii. A list of identification numbers for equipment that are designated for no detectable emissions. This list shall be signed by the owner or operator.

iii. A list of equipment identification numbers for pressure relief valves.
iv. The dates of each compliance test.
v. The background level measured during each compliance test.
vi. The maximum instrument reading measured at the equipment during each compliance test.
vii. A list of identification numbers for equipment in vacuum service.
viii. A list of identification numbers for equipment that the owner or operator designates as operating in VOC service less than 300 hr/yr, a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr. [40 CFR § 60.486(e)].
ix. For all valves and pumps designated as unsafe-to-monitor or difficult-to-monitor:
   a. A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to monitor, and the plan for monitoring each valve or pump.
   b. A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

[40 CFR § 60.486(f); Permit R13-2334V – Section 8.4.4]

Each owner or operator subject to the provision of NSPS, Subpart VVa shall comply with the recordkeeping requirements of this section.
[NSPS, Subpart VVa; § 60.486a; Permit R13-2334V – Section 8.4.5]

Reporting:
Electronic Monitoring, Storing, and Reporting of LDAR Data
i. Electronic Storing and Reporting of LDAR Data. The facility will maintain an electronic database (e.g., EXCEL spreadsheet) for storing and reporting LDAR data. The electronic database shall include data identifying the date and time of the monitored event, and the operator and instrument used in the monitored event.
ii. Electronic Data ollectiOll During LDAR Monitoring and ransfer Thereafter. The permittee shall use data loggers and/or electronic data collection devices during all LDAR monitoring. The permittee, or its designated contractor, shall use its/their best efforts to transfer, by the end of the next business day, electronic data from electronic data logging devices to the electronic database listed above. For all monitoring events in which an electronic data collection device is used, the collected monitoring data shall include a time and date stamp. The permittee may use paper logs where necessary or more feasible (e.g., small rounds, re-monitoring, or when data loggers are not available or broken), and shall record, at a minimum, the identification of the technician undertaking the monitoring, the date, and the identification of the monitoring equipment. The permittee shall use its best efforts to transfer any manually recorded monitoring data to the electronic database within seven days of monitoring.

[Civil Decree No. 3:03CV114010S Paragraph V.18.1.; Permit 13R-2334V – Section 8.5.1]

QA/QC of LDAR Data - The permittee shall ensure that monitoring data provided to the permittee by its contractors is reviewed for QA/QC before the contractor submits the data to the permittee. At least once per calendar quarter, the permittee shall perform QA/QC of the contractor's monitoring data which shall include, but not be limited to, number of components monitored per technician, time between monitoring events, and abnormal data patterns.
[Civil Decree No. 3:03CV114010S Paragraph V.18.J.; Permit R13-2334V – Section 8.5.2]

The permittee shall submit semiannual reports to the Administrator beginning six months after the initial startup date. All semiannual reports shall include the following information:
i. Process unit identification.
ii. For each month during the semiannual reporting period,
   a. Number of valves for which leaks were detected.
   b. Number of valves for which leaks were not repaired.
   c. Number of pumps for which leaks were detected.
   d. Number of pumps for which leaks were not repaired.
   e. Number of compressors for which leaks were detected.
   f. Number of compressors for which leaks were not repaired.
   g. The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

iii. Dates of process unit shutdowns which occurred within the semiannual reporting period.
iv. Revisions to items reported in initial report if changes have occurred since the initial report or subsequent revisions to the initial report.

[40 CFR § 60.487(c); Permit R13-2334V – Section 8.5.3]

Each owner or operator subject to the provision of NSPS, Subpart VVa shall comply with the reporting requirements of §60.487a.
[NSPS, Subpart Vva; §60.487a; Permit R13-2334V – Section 8.5.4]

Are you in compliance with all applicable requirements for this emission unit? Yes

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

ATTACHMENT F – SCHEDULE OF COMPLIANCE

ATTACHMENT F – SCHEDULE OF COMPLIANCE

EWVI is in compliance with all applicable requirements for each emission unit. Therefore, the Schedule of Compliance form is not applicable.

ATTACHMENT G – AIR POLLUTION CONTROL DEVICE FORMS

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 00A-01	**List all emission units associated with this control device.** Emergency flare is not used in routine operations.	
Manufacturer: John Zink	**Model number:** EEF-QS-30	**Installation date:** 03/01/1972

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter ___ Venturi Scrubber ___ Multiclone

___ Carbon Bed Adsorber ___ Packed Tower Scrubber ___ Single Cyclone

___ Carbon Drum(s) ___ Other Wet Scrubber ___ Cyclone Bank

___ Catalytic Incinerator ___ Condenser ___ Settling Chamber

___ Thermal Incinerator _X__ Flare ___ Other (describe) _____

___ Wet Plate Electrostatic Precipitator ___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
VOC	N/A	95%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

N/A

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X__ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.**

F1 is not subject to the CAM requirements of 40 CFR 64 due to the fact that the flare is used for upsets, and EWVI uses flare gas recovery.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

The 'Pilot on' indicator is used to indicate performance of this unit.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 00A-02	**List all emission units associated with this control device.** TLoad	
Manufacturer: John Zink	**Model number:** ZCT-2-8-35-2-316-X	**Installation date:** MM/DD/1994

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter ___ Venturi Scrubber ___ Multiclone

___ Carbon Bed Adsorber ___ Packed Tower Scrubber ___ Single Cyclone

___ Carbon Drum(s) ___ Other Wet Scrubber ___ Cyclone Bank

___ Catalytic Incinerator ___ Condenser ___ Settling Chamber

_X__ Thermal Incinerator ___ Flare ___ Other (describe) _____

___ Wet Plate Electrostatic Precipitator ___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
VOC	N/A	98.7%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Temperature = 1,000°F

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X__ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.**

Non-applicability of CAM Rules EWVI to the EWVI Refinery

Compliance Assurance Monitoring (CAM) potentially applies on a Pollutant Specific Emission Unit (PSEU) basis at emission units located at a major source for purposes of Title V permitting. CAM rules codified in 40 CFR Part 64 apply if:

1) The PSEU is subject to an emission limit or standard

2) The PSEU uses an add-on control device to achieve compliance with the emission limitation or standard

3) The PSEU has pre-control emissions greater than the Title V major source thresholds for the applicable pollutant

4) The PSEU is not an exempt back-up utility power emissions unit that is municipally owned

At the EWVI refinery, the only emission unit that potentially meets the requirements above includes the loading rack that is controlled using the thermal oxidizer.
The emission limitation that the loading rack and the thermal oxidizer are subject to is 40 CFR Part 63 Subpart CC and 40 CFR Part 63 Subpart R. Both these Part 63 subparts were promulgated after 11/15/1990. 40 CFR Part 64(b)(1)(i) exempts "Emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act." Section 111 and 112 refer to 40 CFR Part 60, 61 and 63.
Therefore, CAM does not apply to the loading rack and the associated thermal oxidizer.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Temperature is used to indicate performance of this unit.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 00A-03	**List all emission units associated with this control device.** WWT	
Manufacturer: Chem-Trade International, Inc.	**Model number:** DVM-8	**Installation date:** 02/2002

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter ___ Venturi Scrubber ___ Multiclone

_X__ Carbon Bed Adsorber ___ Packed Tower Scrubber ___ Single Cyclone

___ Carbon Drum(s) ___ Other Wet Scrubber ___ Cyclone Bank

___ Catalytic Incinerator ___ Condenser ___ Settling Chamber

___ Thermal Incinerator ___ Flare ___ Other (describe) _____

___ Wet Plate Electrostatic Precipitator ___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
VOC	95-99%	95-99%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

This control device consist of two identical carbon units each containing 7,700 lbs of granular activated carbon (CT 410 GAC). Maximum design flow rate is 6,000 cfm. A single unit is operated while the other remains in standby mode until the first unit breaks through.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X__ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.**

This unit is not subject to the CAM requirements of 40 CFR 64 due to the fact that the pre-control emissions are less than the Title V threshold for major sources.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Outlet gas is monitored using an MSA VOC analyzer Model No. A-3800-111-0000-DAN-1. A performance test was conducted to document removal efficiency.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: 00A-04	**List all emission units associated with this control device.** MLD	
Manufacturer: TBD	**Model number:** N/A	**Installation date:** 2012

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter ___ Venturi Scrubber ___ Multiclone

___ Carbon Bed Adsorber ___ Packed Tower Scrubber ___ Single Cyclone

___ Carbon Drum(s) ___ Other Wet Scrubber ___ Cyclone Bank

___ Catalytic Incinerator ___ Condenser ___ Settling Chamber

_X__ Thermal Incinerator ___ Flare ___ Other (describe) _____

___ Wet Plate Electrostatic Precipitator ___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
VOC	N/A	98%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Temperature

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X__ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.**

Non-applicability of CAM Rules EWVI to the EWVI Refinery

Compliance Assurance Monitoring (CAM) potentially applies on a Pollutant Specific Emission Unit (PSEU) basis at emission units located at a major source for purposes of Title V permitting. CAM rules codified in 40 CFR Part 64 apply if:

1) The PSEU is subject to an emission limit or standard

2) The PSEU uses an add-on control device to achieve compliance with the emission limitation or standard

3) The PSEU has pre-control emissions greater than the Title V major source thresholds for the applicable pollutant

4) The PSEU is not an exempt back-up utility power emissions unit that is municipally owned

At the EWVI refinery, the Marine Barge Loading (MLD), which is controlled by the Barge Loading Thermal Oxidizer (MLDOX) potentially applies to the requirements above.
The emission limitation that the loading rack and the thermal oxidizer are subject to is 40 CFR Part 63 Subpart Y. This part was promulgated after 11/15/1990 (09/19/1995). 40 CFR Part 64(b)(1)(i) exempts "Emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act." Section 111 and 112 refer to 40 CFR Part 60, 61 and 63. Therefore, CAM does not apply to the Marine Barge Loading rack and the associated thermal oxidizer.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

Temperature is used to indicate performance of this unit.

ATTACHMENT H – CAM PLAN FORMS

ATTACHMENT H – CAM PLAN FORMS

None of the emission units at EWVI are subject to CAM. See Attachment G for complete discussion of non-applicability.