Commonwealth of Kentucky

Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
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Draft

AIR QUALITY PERMIT

Issued under 401 KAR 52:020

Permittee Name:	**Marathon Petroleum Company, Catlettsburg Refining**
Mailing Address:	**P.O. Box 1492, Catlettsburg, Kentucky 41129**
Source Name:	**Marathon Petroleum Company, Catlettsburg Refining**
Mailing Address:	**P.O. Box 1492** **Catlettsburg, Kentucky 41129**
Source Location:	**Same as above**
Permit ID:	**V-05-089 R1**
Agency Interest :	**339**
Activity ID:	**APE20060005/20060008**
Review Type:	**Title V, Construction/Operating**
Source ID:	**21-019-00004**
Regional Office:	**Ashland Regional Office** **1550 Wolohan Drive, Suite 1** **Ashland, KY 41102** **(606) 929-5285**
County:	**Boyd**
Application Complete Date:	**February 12, 1999**
Issuance Date:	
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Expiration Date:	

John S. Lyons, Director
Division for Air Quality

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TABLE OF CONTENTS

SECTION	DATE OF ISSUANCE	PAGE
A. PERMIT AUTHORIZATION		1
B. EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS		
1. Transfer Racks		2
2. Flares		19
3. Cooling Towers		23
4. Heaters, Boilers and Combustion Devices		30
5. Process Units		108
6. Storage Vessels		189
7. General Wastewater Treatment Area		261
8. Benzene Wastewater Treatment Area		271
9. Remediation		294
C. INSIGNIFICANT ACTIVITIES Emergency Activities		334
D. SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS		342
E. SOURCE CONTROL EQUIPMENT OPERATING REQUIREMENTS		344
F. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS		348
G. GENERAL PROVISIONS		351
H. ALTERNATE OPERATING SCENARIOS		358
I. COMPLIANCE SCHEDULE		359

	Permit type	Log or Activity#	Complete Date	Issuance Date	Summary of Action
V-05-089	**Initial Title V Issuance**	**APE20040002**	**2/12/1999**	**Prop. 3/30/2006**	**Incorporates numerous minor revisions and a significant revision for revision of limits to preclude PSD**
V-05-089 R1	**Title V significant rev.**	**APE20060005 APE20060008**	**3/11/2007**	**TBD**	**Boiler Consolidation Project**

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks

Note: mgal = 1000 gallons

Emission Point	Description	Air Pollution Control Equipment	Date Constructed or Last Modified	40 CFR 60 Subpart XX	40 CFR 63 Subpart G	40 CFR 63 Subpart R	40 CFR 63 Subpart Y	40 CFR 63 Subpart CC
L005 (1-7-J-02)	Viney branch truck loading / unloading rack Loading Capacity: Ethanol 8950 mgals/yr. Diesel 193,850 mgals/yr. Kerosene 41,300 mgals/yr. Gasoline (All Grades) 413,000 mgals/yr. Turbine Fuel 1,600 mgals/yr. Additives 300 mgals/yr.	Vapor recovery	1996 (recons-tructed)	X (40 CFR 63 Sub R more stringent)		X		X (ref 40 CFR 63 Sub R)
L004 (1-7-J-01)	New solvent truck loading rack Loading Capacity: Toluene 12,600 mgals/yr. Xylene 9,200 mgals/yr Xylene Bottoms 800 mgals/yr Mineral spirit 9,250 mgals/yr KWIK Dry 6,100 mgals/yr VM & P 10,300 mgals/yr Turbine Fuel 1,600 mgals/yr Cumene 2450 mgals/yr	Vapor destruction unit (common with L006)	1987		Group 2			
L006 (1-7-J-03)	Solvent (A&A) railcar loading / unloading rack Loading Capacity: Toluene 18,600 mgals/yr. Xylene 10,000 mgals/yr Xylene Bottoms 2,000 mgals/yr Mineral spirit 15,500 mgals/yr KWIK Dry 2,300 mgals/yr Lacolene 300 mgals/yr LOB Solvent 1,000 mgals/yr 140 Solvent 2350 mgals/yr Non EMS 1,000 mgals/yr.	Vapor destruction unit (common with L004)	1996		Group 2			
L007 (1-7-J-04)	Old solvent truck loading rack JP-7 4,200 mgals/yr DNO 9,000 mgals/yr.	None	1987		Group 2			
L008 (1-7-J-05)	Light oil barge loading / unloading dock Loading Capacity: Toluene 6,9500 mgals/yr. Xylene 1,200 mgals/yr Xylene Bottoms 500 mgals/yr Mineral spirit 1,750mgals/yr KWIK Dry 7,400 mgals/yr VM & P 1,350 mgals/yr Cumene 87,950 mgals/yr	None	1973				X	X (ref 40 CFR 63 Sub Y)

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks (Continued)

Emission Point	Description	Air Pollution Control Equipment	Date Constructed or Last Modified	40 CFR 60 Subpart XX	40 CFR 63 Subpart G	40 CFR 63 Subpart R	40 CFR 63 Subpart Y	40 CFR 63 Subpart CC
L001 (1-6-J-01)	Heavy oil barge loading / unloading dock Max. Loading Capacity: #6 Fuel Oil 88,950 mgals/yr Asphalt (Grade 5,20,40) 151,000 mgals/yr Carbon Black Feed 1,000 mgals/yr Water 1,000 mgals/yr Pitch Unit OVHD 9,200 mgals/yr	None	1976				X	X (ref 40 CFR 63 Sub Y)
L015 (2-5-J-02)	Crude oil barge loading / unloading dock Loading Capacity: 100 Neutral 78,500 mgals/yr 325 Neutral 55,500 mgals/yr MTBE 6,200 mgals/y Reformer Charge 4,200 mgals/yr Raffinate 4,300 mgals/yr.	None	1984				X	X (ref 40 CFR 63 Sub Y)
L016 (1-7-J-07)	Naphtha railcar loading rack OUT OF SERVICE	None						
L014 (2-5-J-01)	#2 Refinery Rail Car Loading	None	2001					

APPLICABLE REGULATIONS

401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart J	Standards of Performance for Petroleum Refineries
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart XX	Standards of Performance for Bulk Gasoline Terminals
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart G	National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemicals Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks (Continued)

APPLICABLE REGULATIONS (Continued)

401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart R	National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart Y	National Emission Standards for Marine Tank Vessel Loading Operations
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart CC	National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries

NON-APPLICABLE REGULATIONS:

401 KAR 59:101	New Bulk Gasoline Plants Per Section 1(2), rule does not apply since tank trucks, trailers, railroad cars, or other mobile non-marine vessels are not used for incoming gasoline transfer operations.
401 KAR 61:056	Existing Bulk Gasoline Plants Per Section 1(2), rule does not apply since tank trucks, trailers, or other mobile non-marine vessels are not used for incoming gasoline transfer operations
401 KAR 51:017	Prevention of Significant Deterioration of Air Quality (PSD) The permittee has elected to accept permit conditions for the Viney Branch Truck Rack (Emission Point: L005) in order to preclude the applicability of PSD to the construction authorized by permit S-96-251

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks (Continued)

1. Operating Limitations:

L004 1-7-J-01 New solvent truck loading rack

a. Vapor destruction unit (VDU) 1-7-B-1 shall control loading emissions from the New solvent truck rack. [To preclude the applicability of 401 KAR 51:017, PSD, for VOC emissions]

Compliance Demonstration Method:
The permittee shall operate and maintain an integrated automatic shutdown system at the New Solvent Truck loading rack that prevents loading to occur during periods that the VDU is not operating. Records shall be maintained of the most recent compliance demonstration test on VDU. See 5. Specific Record Keeping Requirements and 7. Specific Control Equipment Operating Conditions, below.

L006 1-7-J-03 Solvent Aromatic and Aliphatic (A&A) railcar loading / unloading rack

b. Vapor destruction unit (VDU) 1-7-B-1 shall control loading emissions from the Solvent (A&A) railcar rack and have a VOC destruction efficiency of at least 98%. [State-Origin condition from permit O-93-016]

Compliance Demonstration Method:
The permittee shall operate and maintain an integrated automatic shutdown system at the Solvent A7A railcar rack that prevents loading to occur during periods that the VDU is not operating. Records shall be maintained of the most recent compliance demonstration test on VDU. See 5. Specific Record Keeping Requirements and 7. Specific Control Equipment Operating Conditions, below.

L005 1-7-J-02 Viney branch truck loading / unloading rack

c. Each owner or operator of loading racks at a bulk gasoline terminal shall comply with the requirements in 40 CFR 60.502, except for paragraphs (b), (c), and (j) of that section. For purposes of this section, the term ‘‘affected facility’’ used in section 40 CFR 60.502 means the loading racks that load gasoline cargo tanks at the bulk gasoline terminals subject to the provisions of 40 CFR 63 Subpart R. [40 CFR 63.422 (a)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks (Continued)

1. Operating Limitations (Continued):

L005 1-7-J-02 Viney branch truck loading / unloading rack (continued)

d. Each owner or operator of a bulk gasoline terminal shall comply with 40 CFR 60.502(e) of this chapter as follows:
   (1) For the purposes of 40 CFR 60.502(e), the term ``tank truck'' as used in 40 CFR 60.502(e) means ``cargo tank.''
   (2) Pursuant to 40 CFR 60.502(e)(5), the terminal owner or operator shall take steps assuring that the non-vapor- tight gasoline cargo tank will not be reloaded at the facility until vapor tightness documentation for that gasoline cargo tank is obtained which documents that:
      (i) The gasoline cargo tank meets the applicable test requirements in 40 CFR 63.425(e);
      (ii) For each gasoline cargo tank failing the test in 40 CFR 63.425 (f) or (g) at the facility, the cargo tank either:
         (A) Before repair work is performed on the cargo tank, meets the test requirements in 40 CFR 63.425 (g) or (h), or
         (B) After repair work is performed on the cargo tank before or during the tests in 40 CFR 63.425 (g) or (h), subsequently passes the annual certification test described in 40 CFR 63.425(e). [40 CFR 63.422 (c)]

e. Each affected facility shall be equipped with a vapor collection system designed to collect the total organic compounds vapors displaced from tank trucks during product loading. [40 CFR 60.502 (a)]

f. Each vapor collection system shall be designed to prevent any total organic compounds vapors collected at one loading rack from passing to another loading rack. [40 CFR 60.502 (d)]

g. Loadings of liquid product into gasoline cargo tank shall be limited to vapor-tight gasoline cargo tank using the following procedures:
   (1) The owner or operator shall obtain the vapor tightness documentation described in 40 CFR 60.505(b) for each gasoline cargo tank which is to be loaded at the affected facility.
   (2) The owner or operator shall require the tank identification number to be recorded as each gasoline cargo tank is loaded at the affected facility.
   (3) (i) The owner or operator shall cross-check each tank identification number obtained in 40 CFR 60.502 (e)(2) with the file of tank vapor tightness documentation within 2 weeks after the corresponding tank is loaded, unless either of the following conditions is maintained:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks (Continued)

1. **Operating Limitations (Continued):**

(A) If less than an average of one gasoline cargo tank per month over the last 26 weeks is loaded without vapor tightness documentation then the documentation cross-check shall be performed each quarter; or

(B) If less than an average of one gasoline cargo tank per month over the last 52 weeks is loaded without vapor tightness documentation then the documentation cross-check shall be performed semiannually.

(ii) If either the quarterly or semiannual cross-check provided in paragraphs (e)(3)(i) (A) through (B) of 40 CFR 63.425 reveals that these conditions were not maintained, the source must return to biweekly monitoring until such time as these conditions are again met.

(4) The terminal owner or operator shall notify the owner or operator of each non-vapor-tight gasoline cargo tank loaded at the affected facility within 1 week of the documentation cross-check in 40 CFR 60.502 (e)(3).

(5) The terminal owner or operator shall take steps assuring that the nonvapor-tight gasoline cargo tank will not be reloaded at the facility until vapor tightness documentation for that gasoline cargo tank is obtained which documents that:

(i) The gasoline cargo tank meets the applicable test requirements in 40 CFR 63.425(e);

(ii) For each gasoline cargo tank failing the test in 40 CFR 63.425 (f) or (g) at the facility, the cargo tank either:

(A) Before repair work is performed on the cargo tank, meets the test requirements in 40 CFR 63.425 (g) or (h), or

(B) After repair work is performed on the cargo tank before or during the tests in 40 CFR 63.425 (g) or (h), subsequently passes the annual certification test described in 40 CFR 63.425(e).

(6) Alternate procedures to those described in 40 CFR 60.502 (e)(1) through (5) for limiting gasoline cargo tank loadings may be used upon application to, and approval by, the Administrator. [40 CFR 60.502(e)]

h. The owner or operator shall act to assure that loadings of gasoline tank trucks at the affected facility are made only into tanks equipped with vapor collection equipment that is compatible with the terminal's vapor collection system. [40 CFR 60.502(f)]

i. The owner or operator shall act to assure that the terminal's and the tank truck's vapor collection systems are connected during each loading of a gasoline tank truck at the affected facility. Examples of actions to accomplish this include training drivers in the hookup procedures and posting visible reminder signs at the affected loading racks. [40 CFR 60.502(g)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks (Continued)

1. **Operating Limitations (Continued):**

L005 1-7-J-02 Viney branch truck loading / unloading rack (continued)

j. The vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in the delivery tank from exceeding 4,500 pascals (450 mm of water) during product loading. This level is not to be exceeded when measured by the procedures specified in 40 CFR 60.503(d). [40 CFR 60.502(h)]

k. No pressure-vacuum vent in the bulk gasoline terminal's vapor collection system shall begin to open at a system pressure less than 4,500 pascals (450 mm of water). [40 CFR 60.502(i)]

Compliance Demonstration Method:
For compliance with the operating limitations for the Viney branch truck loading/unloading rack, see 4. Specific Monitoring Requirements, 5. Specific Record Keeping Requirements and 6. Specific Reporting Requirements, below.

L001 1-6-J-01 Heavy oil barge loading / unloading dock
L008 1-7-J-05 Light oil barge loading / unloading dock
L015 2-5-J-02 Crude oil barge loading / unloading dock

l. Pursuant to 40 CFR 63.560(b)(2), in order to preclude the applicability of 40 CFR 63 Subpart Y Sections 63.562 (c) and (d), as referenced by 40 CFR 63 Subpart CC Section 63.651(a), the following loading limits shall not be exceeded at the marine tank vessel loading operations listed above:

Product	Loading Limit (million bbl/year)
Gasoline	10
Crude Oil	200

Compliance Demonstration Method:
For compliance with the operating limitations for the heavy oil, light oil, and crude oil barge loading/unloading dock, see 5. Specific Record Keeping Requirements, below.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks (Continued)

2. Emission Limitations:

L005 1-7-J-02 Viney branch truck loading / unloading rack

a. Emissions to the atmosphere from the vapor collection and processing systems due to the loading of gasoline cargo tanks shall not exceed 10 milligrams of total organic compounds per liter of gasoline loaded. [40 CFR 63 Subpart CC Section 63.650(a), 40 CFR 63.422]

Compliance Demonstration Method:
See 3. Testing Requirements below.

b. Emissions due to loading materials at the Viney Branch transfer rack shall not exceed 120.9 tons of VOC during any consecutive 12-month period. [To preclude the applicability of 401 KAR 51:017, PSD, for VOC emissions]

Compliance Demonstration Method:
Compliance is demonstrated by tracking the total amount of material loaded each month, and using the following equations to calculate monthly VOC emissions:

VOC emissions = Amount loaded each month x VOC emission factor from the most recent performance test

Material loaded that does not contain VOC should not be included in the above calculation.

L001 1-6-J-01 Heavy oil barge loading / unloading dock
L008 1-7-J-05 Light oil barge loading / unloading dock
L015 2-5-J-02 Crude oil barge loading / unloading dock

c. Pursuant to 40 CFR 63.560(a)(2), in order to preclude the applicability of 40 CFR 63 Subpart Y Sections 63.562 (b) and (d), as referenced by 40 CFR 63 Subpart CC Section 63.651(a), the following emission limits shall not be exceeded at the marine tank vessel loading operations listed above. Emissions shall be calculated using the methods specified in 40 CFR 63.565(l).

Pollutant	Any consecutive 12-months period Emission Limit (ton/year)
Each Individual HAP	10
All Combined HAP	25

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks (Continued)

2. Emission Limitations (Continued):

Compliance Demonstration Method:

Compliance is demonstrated by tracking the total amount of material loaded each month, and using the following equations to calculate monthly individual HAP and combined HAP emissions:

HAP emissions = Amount loaded each month x HAP speciated analytical data.

Material loaded that does not contain HAP should not be included in the above calculation.

3. Testing Requirements:

L005 1-7-J-02 Viney branch truck loading / unloading rack

Pursuant to 40 CFR 63 Subpart CC Section 63.650(a), the above transfer rack shall comply with the following provisions of 40 CFR 63 Subpart R:

a. Each owner or operator subject to the emission standard in 40 CFR 63.422(b) or 40 CFR 60.112b(a)(3)(ii) shall conduct a performance test on the vapor processing system according to the test methods and procedures in 40 CFR 60.503, except a reading of 500 ppm shall be used to determine the level of leaks to be repaired under 40 CFR 60.503(b). If a flare is used to control emissions, and emissions from this device cannot be measured using these methods and procedures, the provisions of 40 CFR 63.11(b) shall apply. [40 CFR 63.425 (a)]

b. For each performance test conducted under 40 CFR 63.425 (a), the owner or operator shall determine a monitored operating parameter value for the vapor processing system using the following procedure:
   (1) During the performance test, continuously record the operating parameter under 40 CFR 63.427(a);
   (2) Determine an operating parameter value based on the parameter data monitored during the performance test, supplemented by engineering assessments and the manufacturer's recommendations; and
   (3) Provide for the Administrator's approval the rationale for the selected operating parameter value, and monitoring frequency and averaging time, including data and calculations used to develop the value and a description of why the value, monitoring frequency, and averaging time demonstrate continuous compliance with the emission standard in 40 CFR 63.422(b) or 40 CFR 60.112b(a)(3)(ii). [40 CFR 63.425 (b)]

c. For performance tests performed after the initial test, the owner or operator shall document the reasons for any change in the operating parameter value since the previous performance test. [40 CFR 63.425 (c)]

d. Annual certification test. The annual certification test for gasoline cargo tanks shall consist of the following test methods and procedures:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks (Continued)

3. Testing Requirements (Continued):

(1) Method 27, appendix A, 40 CFR part 60. Conduct the test using a time period (t) for the pressure and vacuum tests of 5 minutes. The initial pressure (Pi) for the pressure test shall be 460 mm H2O (18 in. H2O), gauge. The initial vacuum (Vi) for the vacuum test shall be 150 mm H2O (6 in. H2O), gauge. The maximum allowable pressure and vacuum changes (Dp, Dv) are as shown in the second column of Table 2 of 40 CFR 63.425 (e).

(2) Pressure test of the cargo tank's internal vapor valve as follows:

(i) After completing the tests under 40 CFR 63.425 (e)(1), use the procedures in Method 27 to repressurize the tank to 460 mm H2O (18 in. H2O), gauge. Close the tank's internal vapor valve(s), thereby isolating the vapor return line and manifold from the tank.

(ii) Relieve the pressure in the vapor return line to atmospheric pressure, then reseal the line. After 5 minutes, record the gauge pressure in the vapor return line and manifold. The maximum allowable 5-minute pressure increase is 130 mm H2O (5 in. H2O). [40 CFR 63.425 (e)]

Table 2 of 40 CFR 63.425 (e) —ALLOWABLE CARGO TANK TEST PRESSURE OR VACUUM CHANGE

Cargo tank or compartment capacity, liters (gal)	Annual certification- Allowable pressure or vacuum change (Dp, Dv) in 5 minutes, mm H2O (in. H2O)	Allowable pressure change (Dp) in 5 minutes at any time, mm H2O (in. H2O)
9,464 or more (2,500 or more)	25 (1.0)	64 (2.5)
9,463 to 5,678 (2,499 to 1,500)	38 (1.5)	76 (3.0)
5,679 to 3,785 (1,499 to 1,000)	51 (2.0)	89 (3.5)
3,782 or less (999 or less)	64 (2.5)	102 (4.0)

e. Leak detection test. The leak detection test shall be performed using Method 21, appendix A, 40 CFR part 60, except omit section 4.3.2 of Method 21. A vapor-tight gasoline cargo tank shall have no leaks at any time when tested according to the procedures in this paragraph.

(1) The leak definition shall be 21,000 ppm as propane. Use propane to calibrate the instrument, setting the span at the leak definition. The response time to 90 percent of the final stable reading shall be less than 8 seconds for the detector with the sampling line and probe attached.

(2) In addition to the procedures in Method 21, include the following procedures:

(i) Perform the test on each compartment during loading of that compartment or while the compartment is still under pressure.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks (Continued)

3. <u>Testing Requirements (Continued)</u>:

(ii) To eliminate a positive instrument drift, the dwell time for each leak detection shall not exceed two times the instrument response time. Purge the instrument with ambient air between leak detection. The duration of the purge shall be in excess of two instrument response times.

(iii) Attempt to block the wind from the area being monitored. Record the highest detector reading and location for each leak. [40 CFR 63.425 (f)]

f. Nitrogen pressure decay field test. For those cargo tanks with product manifold lines, this test procedure shall be conducted on each compartment.

(1) Record the cargo tank capacity. Upon completion of the loading operation, record the total volume loaded. Seal the cargo tank vapor collection system at the vapor coupler. The sealing apparatus shall have a pressure tap. Open the internal vapor valve(s) of the cargo tank and record the initial headspace pressure. Reduce or increase, as necessary, the initial headspace pressure to 460 mm H2O (18.0 in. H2O), gauge by releasing pressure or by adding commercial grade nitrogen gas from a high pressure cylinder capable of maintaining a pressure of 2,000 psig.

(i) The cylinder shall be equipped with a compatible two-stage regulator with a relief valve and a flow control metering valve. The flow rate of the nitrogen shall be no less than 2 cfm. The maximum allowable time to pressurize cargo tanks with headspace volumes of 1,000 gallons or less to the appropriate pressure is 4 minutes. For cargo tanks with a headspace of greater than 1,000 gallons, use as a maximum allowable time to pressurize 4 minutes or the result from the equation below, whichever is greater.

$$T = Vh \times 0.004$$ where:

T = maximum allowable time to pressurize the cargo tank, min;

Vh = cargo tank headspace volume during testing, gal.

(2) It is recommended that after the cargo tank headspace pressure reaches approximately 460 mm H2O (18 in. H20), gauge, a fine adjust valve be used to adjust the headspace pressure to 460 mm H2O (18.0 in. H2O), gauge for the next 30 ± 5 seconds.

(3) Reseal the cargo tank vapor collection system and record the headspace pressure after 1 minute. The measured headspace pressure after 1 minute shall be greater than the minimum allowable final headspace pressure (PF) as calculated from the following equation:

$$PF = 18 \times ((18 - N) / 18) \exp (Vs / (5\ Vh)) \text{ where:}$$

(PF) = minimum allowable final headspace pressure, in. H2O, gauge;

Vs = total cargo tank shell capacity, gal;

Vh = cargo tank headspace volume after loading, gal;

18.0 = initial pressure at start of test, in. H2O, gauge;

N = 5-minute continuous performance standard at any time from the third column of Table 2 of section 63.425(e)(i), inches H2O.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks (Continued)

3. Testing Requirements (Continued):

(4) Conduct the internal vapor valve portion of this test by repressurizing the cargo tank headspace with nitrogen to 460 mm H2O (18 in. H2O), gauge. Close the internal vapor valve(s), wait for 30 ± 5 seconds, then relieve the pressure downstream of the vapor valve in the vapor collection system to atmospheric pressure. Wait 15 seconds, then reseal the vapor collection system. Measure and record the pressure every minute for 5 minutes. Within 5 seconds of the pressure measurement at the end of 5 minutes, open the vapor valve and record the headspace pressure as the ''final pressure.''

(5) If the decrease in pressure in the vapor collection system is less than at least one of the interval pressure change values in Table 3 of this paragraph, or if the final pressure is equal to or greater than 20 percent of the 1-minute final headspace pressure determined in the test in paragraph (g)(3) of 40 CFR 63.425, then the cargo tank is considered to be a vapor-tight gasoline cargo tank. [40 CFR 63.425(g)]

40 CFR 63.425(g) - TABLE 3—PRESSURE CHANGE FOR INTERNAL VAPOR VALVE TEST

Time interval	Interval pressure change, mm H2O (in. H2O)
After 1 minute	28 (1.1)
After 2 minutes	56 (2.2)
After 3 minutes	84 (3.3)
After 4 minutes	112 (4.4)
After 5 minutes	140 (5.5)

g. Continuous performance pressure decay test.
The continuous performance pressure decay test shall be performed using Method 27, appendix A, 40 CFR Part 60. Conduct only the positive pressure test using a time period (t) of 5 minutes. The initial pressure (Pi) shall be 460 mm H2O (18 in. H2O), gauge. The maximum allowable 5-minute pressure change (Dp) which shall be met at any time is shown in the third column of Table 2 of 40 CFR 63.425(e)(1). [40 CFR 63.425(h)]

4. Specific Monitoring Requirements:

L005 1-7-J-02 *Viney branch truck loading / unloading rack*

a. Pursuant to 40 CFR 63 Subpart CC Section 63.650(a), the permittee shall comply with the following provisions of 40 CFR 63 Subpart R Sections 63.427(a) and (b) for the above transfer rack. Each owner or operator of a bulk gasoline terminal shall install, calibrate, certify, operate, and maintain, according to the manufacturer's specifications, a continuous monitoring system (CMS) as specified in 40 CFR63.427 (a)(1), (a)(2), (a)(3), or (a)(4), except as allowed in 40 CFR 63.427 (a)(5).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks (Continued)

4. Specific Monitoring Requirements (Continued):

(1) Where a carbon adsorption system is used, a continuous emission monitoring system (CEMS) capable of measuring organic compound concentration shall be installed in the exhaust air stream.

(2) Where a refrigeration condenser system is used, a continuous parameter monitoring system (CPMS) capable of measuring temperature shall be installed immediately downstream from the outlet to the condenser section. Alternatively, a CEMS capable of measuring organic compound concentration may be installed in the exhaust air stream.

(3) Where a thermal oxidation system is used, a CPMS capable of measuring temperature shall be installed in the firebox or in the ductwork immediately downstream from the firebox in a position before any substantial heat exchange occurs.

(4) Where a flare is used, a heat-sensing device, such as an ultraviolet beam sensor or a thermocouple, shall be installed in proximity to the pilot light to indicate the presence of a flame.

(5) Monitoring an alternative operating parameter or a parameter of a vapor processing system other than those listed in this paragraph will be allowed upon demonstrating to the Administrator's satisfaction that the alternative parameter demonstrates continuous compliance with the emission standard in 40 CFR 63.422(b) or 40 CFR 60.112b(a)(3)(ii). [40 CFR 63.427(a)]

b. Each owner or operator of a bulk gasoline terminal subject shall operate the vapor processing system in a manner not to exceed the operating parameter value for the parameter described in 40 CFR 63.427 (a)(1) and (a)(2), or to go below the operating parameter value for the parameter described in 40 CFR 63.427 (a)(3), and established using the procedures in 40 CFR 63.425(b). In cases where an alternative parameter pursuant to 40 CFR (a)(5) is approved, each owner or operator shall operate the vapor processing system in a manner not to exceed or not to go below, as appropriate, the alternative operating parameter value. Operation of the vapor processing system in a manner exceeding or going below the operating parameter value, as specified above, shall constitute a violation of the emission standard in 40 CFR 63.422(b). [40 CFR 63.427(b)]

5. Specific Record Keeping Requirements:

L004 1-7-J-01 New solvent truck loading rack

a. The permittee shall maintain records of periods in which the VDU (1-7-B-1) is not operational and verify that the loading did not occur at the New Solvent truck rack during the VDU downtime. [To preclude the applicability of 401 KAR 51:017, PSD, for VOC emissions.

b. The permittee shall retain records of the most recent compliance demonstration test on the VDU. [To preclude the applicability of 401 KAR 51:017, PSD, for VOC emissions]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks (Continued)

5. <u>Specific Record Keeping Requirements (Continued)</u>:

L006 1-7-J-03 Solvent (A&A) railcar loading / unloading rack

c. The permittee shall maintain records of periods in which the VDU (1-7-B-1) is not operational, and verify that the loading did not occur during VDU downtime.
d. The permittee shall retain records of the most recent compliance demonstration test on the VDU.

L004 1-7-J-01 New solvent truck loading rack
L006 1-7-J-03 Solvent (A&A) railcar loading / unloading rack
L007 1-7-J-04 Old solvent truck loading rack

e. The permittee shall comply with the following record keeping requirements of 40 CFR 63 Subpart G for the above-listed Group 2 transfer racks. Each owner or operator of a Group 1 or Group 2 transfer rack shall record, update annually, and maintain the information specified in 40 CFR 63.130 (f)(1) through (f)(3) in a readily accessible location on site:
(1) An analysis demonstrating the design and actual annual throughput of the transfer rack;
(2) An analysis documenting the weight-percent organic HAP's in the liquid loaded. Examples of acceptable documentation include but are not limited to analyses of the material and engineering calculations.
(3) An analysis documenting the annual rack weighted average HAP partial pressure of the transfer rack.
(i) For Group 2 transfer racks that are limited to transfer of organic HAP's with partial pressures less than 10.3 kilopascals, documentation is required of the organic HAP's (by compound) that are transferred. The rack weighted average partial pressure does not need to be calculated.
(ii) For racks transferring one or more organic HAP's with partial pressures greater than 10.3 kilopascals, as well as one or more organic HAP's with partial pressures less than 10.3 kilopascals, a rack weighted partial pressure shall be documented. The rack weighted average HAP partial pressure shall be weighted by the annual throughput of each chemical transferred. [40 CFR 63.130(f)]

L005 1-7-J-02 Viney branch truck loading / unloading rack

f. Pursuant to 40 CFR 63 Subpart CC Section 63.650(a), the permittee shall comply with the following record keeping requirements of 40 CFR 63 Subpart R for the above listed transfer rack. Each owner or operator of a bulk gasoline terminal shall keep records of the test results for each gasoline cargo tank loading at the facility as follows:
(1) Annual certification testing performed under 40 CFR 63.425(e); and

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks (Continued)

5. Specific Record Keeping Requirements (Continued):

(2) Continuous performance testing performed at any time at that facility under 40 CFR 63.425 (f), (g), and (h). (3) The documentation file shall be kept up-to-date for each gasoline cargo tank loading at the facility. The documentation for each test shall include, as a minimum, the following information:

(i) Name of test: Annual Certification Test--Method 27 (40 CFR 63.425(e)(1)), Annual Certification Test--Internal Vapor Valve (40 CFR 63.425(e)(2)), Leak Detection Test (40 CFR 63.425(f)), Nitrogen Pressure Decay Field Test (40 CFR 63.425(g)), or Continuous Performance Pressure Decay Test (40 CFR 63.425(h)).

(ii) Cargo tank owner's name and address.

(iii) Cargo tank identification number.

(iv) Test location and date.

(v) Tester name and signature.

(vi) Witnessing inspector, if any: Name, signature, and affiliation.

(vii) Vapor tightness repair: Nature of repair work and when performed in relation to vapor tightness testing.

(viii) Test results: Pressure or vacuum change, mm of water; time period of test; number of leaks found with instrument and leak definition. [40 CFR 63.428(b)]

g. Each owner or operator of a bulk gasoline terminal subject to the provisions of this subpart shall keep an up-to-date, readily accessible record of the continuous monitoring data required under 40 CFR 63.427(a). This record shall indicate the time intervals during which loadings of gasoline cargo tanks have occurred or, alternatively, shall record the operating parameter data only during such loadings. The date and time of day shall also be indicated at reasonable intervals on this record. [40 CFR 63.428(c)]

h. The permittee shall maintain records of the total amount of VOC-containing materials loaded at the Viney Branch truck rack each month, and the calculated monthly and 12-month total VOC emissions due to materials loaded. [To preclude the applicability of 401 KAR 51:017, PSD, for VOC emissions]

L001	**1-6-J-01**	**Heavy oil barge loading / unloading dock**
L008	**1-7-J-05**	**Light oil barge loading / unloading dock**
L015	**2-5-J-02**	**Crude oil barge loading / unloading dock**

i. Pursuant to 40 CFR 63 Subpart CC 40 CFR 63.651(a), the permittee shall comply with the following record keeping requirements of 40 CFR 63 Subpart Y for the above marine vessel loading racks.

(1) The recordkeeping requirements of 40 CFR 63.567(j)(4) and the emission estimation requirements of 40 CFR 63.565(l) apply to existing sources with emissions less than 10 and 25 tons. [40 CFR 63.560(a)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks (Continued)

5. Specific Record Keeping Requirements (Continued):

(2) Owners or operators of marine tank vessel loading operations specified in 40 CFR 63.560(a)(3) shall retain records of the emissions estimates determined in 40 CFR 65.565(l) and records of their actual throughputs by commodity, for 5 years. [40 CFR 63.567]

(3) Emission estimation procedures. For sources with emissions less than 10 or 25 tons and sources with emissions of 10 or 25 tons, the owner or operator shall calculate an annual estimate of HAP emissions, excluding commodities exempted by 40 CFR 63.560(d), 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. [40 CFR 63.565]

6. Specific Reporting Requirements:

L005 1-7-J-02 Viney branch truck loading / unloading rack

Pursuant to 40 CFR 63 Subpart CC, Section 63.650(a), the permittee shall comply with the following reporting requirements of 40 CFR 63 Subpart R for the above listed transfer rack:

a. Each owner or operator of a bulk gasoline terminal subject to the provisions of 40 CFR 63 Subpart R shall record and report simultaneously with the notification of compliance status required under 40 CFR 63.9(h):
   (1) All data and calculations, engineering assessments, and manufacturer's recommendations used in determining the operating parameter value under 40 CFR 63.425(b); and
   (2) The following information when using a flare under provisions of 40 CFR 63.11(b) to comply with 40 CFR 63.422(b):
      (i) Flare design (i.e., steam-assisted, air-assisted, or non- assisted); and
      (ii) All visible emissions readings, heat content determinations, flow rate measurements, and exit velocity determinations made during the compliance determination required under 40 CFR 63.425(a).
b. Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of 40 CFR 63 Subpart R shall include in a semiannual report to the Administrator the following information, as applicable: each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility. [40 CFR 63.428(g)]
c. Each owner or operator of a bulk gasoline terminal or pipeline breakout station subject to the provisions of this subpart shall submit an excess emissions report to the Administrator in accordance with 40 CFR 63.10(e)(3), whether or not a CMS is installed at the facility. The following occurrences are excess emissions events under this subpart, and the following information shall be included in the excess emissions report, as applicable:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points L005, L004, L006, L007, L008, L001, L014, L015, and L016 – Transfer Racks (Continued)

6. Specific Reporting Requirements (Continued):

(1) Each exceedance or failure to maintain, as appropriate, the monitored operating parameter value determined under 40 CFR 63.425(b). The report shall include the monitoring data for the days on which exceedances or failures to maintain have occurred, and a description and timing of the steps taken to repair or perform maintenance on the vapor collection and processing systems or the CMS.

(2) Each instance of a nonvapor-tight gasoline cargo tank loading at the facility in which the owner or operator failed to take steps to assure that such cargo tank would not be reloaded at the facility before vapor tightness documentation for that cargo tank was obtained.

(3) Each reloading of a nonvapor-tight gasoline cargo tank at the facility before vapor tightness documentation for that cargo tank is obtained by the facility in accordance with 40 CFR 63.422(c)(2). [40 CFR 63.428(h)]

7. Specific Control Equipment Operating Conditions:

-- 1-7-B-01 Vapor Destruction Unit (VDU) for New Solvent Truck Rack

a. VDU 1-7-B-1 shall control loading emissions from the New Solvent Truck Loading Rack (L004) with a VOC destruction efficiency of at least 98%. [To preclude the applicability of 401 KAR 51:017, PSD, for VOC emissions]

Compliance Demonstration Method:
Compliance will be demonstrated by retaining records of the most recent compliance demonstration test. See Specific Record Keeping Requirements above.

b. The permittee shall not burn any fuel gas in the VDU 1-7-B-1 burner that contains hydrogen sulfide (H2S) in excess of 230 mg/dscm (0.10 gr/dscf). [40 CFR 60 Subpart J, 40 CFR 60.104(a)(1)]

Compliance Demonstration Method:
A continuous monitor is used to measure the concentration of H2S in the fuel gas each day.

c. VDU 1-7-B-1 shall control loading emissions from the Solvent (A&A) Railcar Loading / Unloading Rack (L006) with a VOC destruction efficiency of at least 98%. [State-Origin condition from permit O-93-016]

Compliance Demonstration Method:
Compliance will be demonstrated by retaining records of the most recent compliance demonstration test. See Specific Record Keeping Requirements above.

8. Alternate Operating Scenarios:

None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: FL01, FL02, FL03, FL04, FL05 - Flares

Emission Point	Description	Date Commenced
FL01 (1-14-FS-01)	Pitch Flare	1987
FL02 (2-11-FS-02)	NNA Steam Assist Flare	Pre-1970
FL03 (2-11-FS-03)	HF Alky Flare	1979
FL04 (2-11-FS-04)	FCC Flare	1990
FL05 (1-14-FS-03)	Lube Area Flare	2005

Note: In addition to receiving gases from the refinery, the flares may also receive butane from the Neal, WV maleic anhydride plant and propane from the Neal, WV propane storage cavern for flaring. Both streams contain less than 50 ppm H_2S. Therefore, monitoring for compliance with 40 CFR 60 Subpart J is not required.

APPLICABLE REGULATIONS:

401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart A, Section 60.18	General Control Device Requirements: Applicable by reference from 40 CFR 60.482-10(d)
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart J	Standards of Performance for Petroleum Refineries
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart A, Section 63.11	Control Device Requirements: Applicable by reference from 40 CFR 63.643(a)(1), 63.113(a)(1)(i), and 63.116(a)
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart CC	National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries
401 KAR 63:015	Flares

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: FL01, FL02, FL03, FL04, FL05 - Flares (Continued)

1. **Operating Limitations:**

   a. Pursuant to 40 CFR 63.11(b)(2), (3), and (5), 40 CFR 60.482-10(m) as referenced by 40 CFR 63.648(a), and 40 CFR 63.644(e), the flares shall be steam-assisted, air-assisted, or non-assisted. The flares shall be operated at all times when emissions may be vented to them, and shall be operated with a flame present at all times. [40 CFR 63.11(b)(2), (3), and (5); 40 CFR 60.482-10(m)]

   Operation of the flare in a manner that constitutes a period of excess emissions, as defined in 40 CFR 63.654(g)(6), or failure to meet this permit condition shall constitute a violation of the applicable emission standard of 40 CFR Part 63 Subpart CC. [40 CFR 63.644(e)]

   For miscellaneous process vents for which continuous parameter monitors are required by 40 CFR 63 Subpart CC, periods of excess emissions shall be identified in the Periodic Reports and shall be used to determine compliance with the emission standards. Period of excess emission means an operating day when all pilot flames of a flare are absent. [40 CFR 63.654(g)(6)(i)(B)]

   b. Pursuant to 40 CFR 63.11(b)(6), for each flare, the permittee shall comply with either the heat content specifications in 40 CFR 63.11(b)(6)(ii), and the maximum tip velocity specifications in 40 CFR 63.11(b)(7) or (b)(8), or the requirements in 40 CFR 63.11(b)(6)(i). [40 CFR 63.11(b)(6)]

   The permittee shall maintain, in working order, relief gas flow meters on all flare system headers. These flow meters shall measure the rate at which gas is flared. The permittee shall perform and document routine maintenance in a manner consistent with the vendor specifications and shall make such documents and specifications available to Division personnel upon request. The Division should consider occurrences involving both process equipment and flares individually and collectively for the purpose of evaluating malfunctions. [State-Origin condition from permit # O-93-016, Revision 1].

   Compliance Demonstration Method:
   For compliance with the operating limitations for the flares, see 4. Specific Monitoring Requirements, 5. Specific Record Keeping Requirements and 6. Specific Reporting Requirements, below.

   c. The owner or operator of an affected source shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during the periods of startup, shutdown, and malfunction and program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. [40 CFR 63.6 (e)(3)(i)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: FL01, FL02, FL03, FL04, FL05 - Flares (Continued)

2. Emission Limitations:

a. Pursuant to 40 CFR 63.11(b)(4), the flares shall be operated with no visible emissions, except for periods not to exceed a total of five (5) minutes during any 2 consecutive hours. [40 CFR 63.11(b)(4)]
Compliance Demonstration Method:
See Specific Monitoring Requirements 4.A and 4.B below.

b. Pursuant to 40 CFR 60.104(a)(1), no flare shall burn any fuel gas that contains hydrogen sulfide (H_2S) in excess of 230 mg/dscm (0.10 gr/dscf), based on a 3-hour rolling average. [40 CFR 60.104(a)(1)]
Compliance Demonstration Method:
Fuel gas for the flares is monitored for compliance with 40 CFR 60 Subpart J for H_2S at the fuel gas drums.

3. Testing Requirements:

The permittee shall perform testing on each flare within 180 days of issuance of the final permit to determine the compliance of each flare with the visible emission provisions. The testing shall be performed in accordance with and pursuant to 40 CFR 63.11(b)(4), Test Method 22 in Appendix A of 40 CFR Part 60.

4. Specific Monitoring Requirements:

a. Per 40 CFR 63.11(b)(1) and 40 CFR 60.482-10(e) the permittee shall monitor the flares to assure that they are operated and maintained in conformance with their designs. [40 CFR 63.11(b)(1) and 40 CFR 60.482-10(e)]
b. Per 40 CFR 63.644(a)(2), 40 CFR 63.114(a)(2), and 40 CFR 63.11(b)(5), the permittee shall monitor for the presence of a pilot flame via thermocouples or equivalent heat-sensing monitoring devices at each flare. The monitoring equipment shall be installed, calibrated, maintained, and operated according to manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately. [40 CFR 63.644(a)(2), 40 CFR63.114(a)(2), and 40 CFR 63.11(b)(5)]

5. Specific Record Keeping Requirements:

Pursuant to 40 CFR 60.486(d)(4) as referenced by 40 CFR 63.648(a), and 40 CFR 63.654(i), the permittee shall keep the following records up-to-date and readily accessible for five years from the date of generation:

a. Hourly records of whether the pilot flame monitor was continuously operating and whether the pilot flame was continuously present during each hour.
b. Records of the times and duration of all periods during which all pilot flames are absent. Records shall be kept of the times and durations of all periods of monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments and any other periods of process or control device operation when monitors are not operating.
c. Records of the times and dates of all startups, shutdowns, and malfunctions of a flare.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: FL01, FL02, FL03, FL04, FL05 - Flares (Continued)

d. Records of the times and dates of all periods when no process emissions requiring control are vented to a flare.
e. Records of all periods when a flare is not operated as designed.

5. <u>Specific Record Keeping Requirements (Continued)</u>:

f. Hourly records of whether the flow indicator on the flare bypass line (specified under 40 CFR 63.644(c)(1) was operating and whether flow was detected at any time under the hour, as well as records of the times and durations of all periods when the vent stream is diverted from the control device or the monitor is not operating.
g. Where a seal mechanism on the flare bypass line is used to comply with 40 CFR 63.644(c)(2), hourly records of flow are not required. In such cases, the owner or operator shall record that the monthly visual inspection of the seals or closure mechanism has been done, and shall record the duration of all periods when the seal mechanism is broken, the bypass line valve position has changed, or the key for a lock-and-key type lock has been checked out, and records of any car-seal that has broken. [40 CFR 60.486(d)(4)]

6. <u>Specific Reporting Requirements</u>:

Include in the Periodic Report required under 40 CFR 63.654(g), reports of all operating days in which all pilot flames of a flare were absent. [40 CFR 63.654(g)]

7. <u>Specific Control Equipment Operating Conditions</u>:

None

8. <u>Alternate Operating Scenarios</u>:

None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: CT01, CT02, CT03, CT 04, CT05, CT06, CT07, CT08, CT09, CT10, CT11, CT12 – Cooling Towers

Emission Point	Description	40 CFR 63 Subpart F, Section 63.104
CT01 (1-8-CT-02)	Petrochem Cooling Tower #1	X
CT02 (1-8-CT-03)	Petrochem Cooling Tower #2	X
CT03 (1-8-CT-04)	Pitch Cooling Tower	
CT04 (1-8-CT-05)	Lube Plant Cooling Tower	
CT05 (2-603-CT-02)	South Area Cooling Tower	
CT06 (2-603-CT-03)	North Area Cooling Tower #1	
CT08 (2-603-CT-04)	North Area Cooling Tower #2	
CT07 (2-603-CT-05)	North Area Cooling Tower #3	
CT09 (2-603-CT-06)	Gas Con Area Cooling Tower	
CT10 (2-603-CT-07)	HF Alky Area Cooling Tower	
CT11 (2-603-CT-08)	FCCS Area Cooling Tower	
CT12 (2-603-CT-09)	SRU/DDS Cooling Tower	

APPLICABLE REGULATIONS:	
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart F	National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemicals Manufacturing Industry
NON-APPLICABLE REGULATIONS:	
40 CFR 63 Subpart Q - National Emission Standards for Hazardous Air Pollutants from Industrial Process Cooling Towers	Pursuant to 40 CFR 63.400(a), the provisions of 40 CFR 63 Subpart Q do not apply to cooling towers at the refinery because no cooling towers were operated with chromium-based water treatment chemicals on or after September 8, 1994

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: CT01, CT02, CT03, CT 04, CT05, CT06, CT07, CT08, CT09, CT10, CT11, CT12 – Cooling Towers (Continued)

1. **Operating Limitations:**
   a. The permittee shall operate the cooling towers indicated above subject to 40 CFR 63 Subpart F, according to 40 CFR 63.104(d) as follows: if a leak is detected according to the criteria of 40 CFR 63.104 (b) or (c), the owner or operator shall comply with the requirements in 40 CFR 63.104 (d)(1) and (d)(2), except as provided in 40 CFR 63.104 (e).
      (1) The leak shall be repaired as soon as practical but not later than 45 calendar days after the owner or operator receives results of monitoring tests indicating a leak. The leak shall be repaired unless the owner or operator demonstrates that the results are due to a condition other than a leak.
      (2) Once the leak has been repaired, the owner or operator shall confirm that the heat exchange system has been repaired within 7 calendar days of the repair or startup, whichever is later. [40 CFR 63.104(d)]

   b. The permittee shall operate the cooling towers indicated above subject to 40 CFR 63 Subpart F, according to 40 CFR 63.104(e) as follows: delay of repair of heat exchange systems for which leaks have been detected is allowed if the equipment is isolated from the process. Delay of repair is also allowed if repair is technically infeasible without a shutdown and any one of the conditions in 40 CFR 63.104 (e)(1) or (e)(2) is met. All time periods in 40 CFR 63.104 (e)(1) and (e)(2) shall be determined from the date when the owner or operator determines that delay of repair is necessary.
      (1) If a shutdown is expected within the next 2 months, a special shutdown before that planned shutdown is not required.
      (2) If a shutdown is not expected within the next 2 months, the owner or operator may delay repair as provided in 40 CFR 63.104 (e)(2)(i) or (e)(2)(ii). Documentation of a decision to delay repair shall state the reasons repair was delayed and shall specify a schedule for completing the repair as soon as practical.
         (i) If a shutdown for repair would cause greater emissions than the potential emissions from delaying repair, the owner or operator may delay repair until the next shutdown of the process equipment associated with the leaking heat exchanger. The owner or operator shall document the basis for the determination that a shutdown for repair would cause greater emissions than the emissions likely to result from delaying repair as specified in 40 CFR 63.104 (e)(2)(i)(A) and (e)(2)(i)(B).
            (A) The owner or operator shall calculate the potential emissions from the leaking heat exchanger by multiplying the concentration of total hazardous air pollutants listed in table 4 of this subpart in the cooling water from the leaking heat exchanger by the flow rate of the cooling water from the leaking heat exchanger by the expected duration of the delay. The owner or operator may calculate potential emissions using total organic carbon concentration instead of total hazardous air pollutants listed in table 4 of 40 CFR 63 Subpart F.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: CT01, CT02, CT03, CT 04, CT05, CT06, CT07, CT08, CT09, CT10, CT11, CT12 – Cooling Towers (Continued)

1. **Operating Limitations (Continued):**

(B) The owner or operator shall determine emissions from purging and depressurizing the equipment that will result from the unscheduled shutdown for the repair.

(ii) If repair is delayed for reasons other than those specified in 40 CFR 63.104 (e)(2)(i), the owner or operator may delay repair up to a maximum of 120 calendar days. The owner shall demonstrate that the necessary parts or personnel were not available. [40 CFR 63.104(d) and (e)]

Compliance Demonstration Method:
For compliance with the operating limitations for the coolers subject to 40 CFR 63 Subpart F, according to 40 CFR 63.104(d) and (e) as follows:, see 4. Specific Monitoring Requirements, 5. Specific Record Keeping Requirements and 6. Specific Reporting Requirements, below.

c. The permittee shall visually check all cooling towers at least once per week, sample the cooling water daily and other reasonable measures for the purpose of identifying VOC leaks into the cooling water. If a leak is identified, the permittee shall repair it as soon as is practical. [State-only requirement from O-93-016, revision 1].

Compliance Demonstration Method:
Records necessary to demonstrate compliance with this condition shall be maintained by the permittee and made available to Division personnel upon request. Records for a rolling twelve-month period shall be maintained at all time.

d. The use of hot wells or barometric condensers is prohibited [State-only requirement from O-93-016, Revision 1].

e. The use of chromium based water treatment chemicals is prohibited [Requirement to preclude applicability of 40 CFR 63, Subpart Q].

Compliance Demonstration Method:
For compliance with the conditions d and e, refer to **Section F-7** for compliance certification.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: CT01, CT02, CT03, CT 04, CT05, CT06, CT07, CT08, CT09, CT10, CT11, CT12 – Cooling Towers (Continued)

2. Emission Limitations:
None

3. Testing Requirements:
None

4. Specific Monitoring Requirements:

The permittee shall monitor the cooling towers indicated above as being subject to 40 CFR 63 Subpart F according to 40 CFR 63.104(b) as follows:

a. The owner or operator who elects to comply with the requirements of 40 CFR 63.104 (a) by monitoring the cooling water for the presence of one or more organic hazardous air pollutants or other representative substances whose presence in cooling water indicates a leak shall comply with the requirements specified in 40 CFR 63.104 (b)(1) through (b)(6). The cooling water shall be monitored for total hazardous air pollutants, total volatile organic compounds, total organic carbon, one or more speciated HAP compounds, or other representative substances that would indicate the presence of a leak in the heat exchange system.

(1) The cooling water shall be monitored monthly for the first 6 months and quarterly thereafter to detect leaks.

(2) (i) For recirculating heat exchange systems (cooling tower systems), the monitoring of speciated hazardous air pollutants or total hazardous air pollutants refers to the hazardous air pollutants listed in table 4 of 40 CFR 63 Subpart F.

(ii) For once-through heat exchange systems, the monitoring of speciated hazardous air pollutants or total hazardous air pollutants refers to the hazardous air pollutants listed in table 9 of 40 CFR 63 Subpart G.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: CT01, CT02, CT03, CT 04, CT05, CT06, CT07, CT08, CT09, CT10, CT11, CT12 – Cooling Towers (Continued)

4. <u>Specific Monitoring Requirements</u>:

(3) The concentration of the monitored substance(s) in the cooling water shall be determined using any EPA-approved method listed in 40 CFR Part 136 as long as the method is sensitive to concentrations as low as 10 parts per million and the same method is used for both entrance and exit samples. Alternative methods may be used upon approval by the Administrator.

(4) The samples shall be collected either at the entrance and exit of each heat exchange system or at locations where the cooling water enters and exits each heat exchanger or any combination of heat exchangers.

(i) For samples taken at the entrance and exit of recirculating heat exchange systems, the entrance is the point at which the cooling water leaves the cooling tower prior to being returned to the process equipment and the exit is the point at which the cooling water is introduced to the cooling tower after being used to cool the process fluid.

(ii) For samples taken at the entrance and exit of once-through heat exchange systems, the entrance is the point at which the cooling water enters and the exit is the point at which the cooling water exits the plant site or chemical manufacturing process units.

(iii) For samples taken at the entrance and exit of each heat exchanger or any combination of heat exchangers in chemical manufacturing process units, the entrance is the point at which the cooling water enters the individual heat exchanger or group of heat exchangers and the exit is the point at which the cooling water exits the heat exchanger or group of heat exchangers.

(5) A minimum of three sets of samples shall be taken at each entrance and exit as defined in 40 CFR 63.104(b)(4). The average entrance and exit concentrations shall then be calculated. The concentration shall be corrected for the addition of any makeup water or for any evaporative losses, as applicable.

(6) A leak is detected if the exit mean concentration is found to be greater than the entrance mean using a one-sided statistical procedure at the 0.05 level of significance and the amount by which it is greater is at least 1 part per million or 10 percent of the entrance mean, whichever is greater. [40 CFR 63.104(b)]

5. <u>Specific Recordkeeping Requirements</u>:

a. The owner or operator shall retain the records identified in 40 CFR 63.104 (f)(1)(i) through (f)(1)(iv) as specified in 40 CFR 63.103(c)(1).

(1) Monitoring data required by this section indicating a leak and the date when the leak was detected, and if demonstrated not to be a leak, the basis for that determination;

(2) Records of any leaks detected by procedures subject to 40 CFR 63.104 (c)(2) and the date the leak was discovered;

(3) The dates of efforts to repair leaks; and

(4) The method or procedure used to confirm repair of a leak and the date repair was confirmed. [40 CFR 63.104(f)(1)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: CT01, CT02, CT03, CT 04, CT05, CT06, CT07, CT08, CT09, CT10, CT11, CT12 – Cooling Towers (Continued)

6. **Specific Reporting Requirements:**
   If an owner or operator invokes the delay of repair provisions for a heat exchange system, the following information shall be submitted in the next semi-annual periodic report required by 40 CFR 63.152(c). If the leak remains unrepaired, the information shall also be submitted in each subsequent periodic report, until repair of the leak is reported.
   a. The owner or operator shall report the presence of the leak and the date that the leak was detected.
   b. The owner or operator shall report whether or not the leak has been repaired.
   c. The owner or operator shall report the reason(s) for delay of repair. If delay of repair is invoked due to the reasons described in 40 CFR 63.104(e)(2), documentation of emissions estimates must also be submitted.
   d. If the leak remains unrepaired, the owner or operator shall report the expected date of repair.
   e. If the leak is repaired, the owner or operator shall report the date the leak was successfully repaired. [40 CFR 63.104(f)(2)]

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Monitoring Scenarios:**
   As an alternate the permittee shall monitor the cooling towers indicated above as being subject to 40 CFR 63 Subpart F according to 40 CFR 63.104(c) as follows: the owner or operator who elects to comply with the requirement of 40 CFR 63.104(a) by monitoring using a surrogate indicator of heat exchange system leaks shall comply with the requirements specified in 40 CFR 63.104 (c)(1) through (c)(3). Surrogate indicators that could be used to develop an acceptable monitoring program are ion specific electrode monitoring, pH, conductivity or other representative indicators.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: CT01, CT02, CT03, CT 04, CT05, CT06, CT07, CT08, CT09, CT10, CT11, CT12 – Cooling Towers (Continued)

a. The owner or operator shall prepare and implement a monitoring plan that documents the procedures that will be used to detect leaks of process fluids into cooling water. The plan shall require monitoring of one or more surrogate indicators or monitoring of one or more process parameters or other conditions that indicate a leak. Monitoring that is already being conducted for other purposes may be used to satisfy the requirements of 40 CFR 63.104. The plan shall include the information specified in 40 CFR.104 (c)(1)(i) and (c)(1)(ii).
   (1) A description of the parameter or condition to be monitored and an explanation of how the selected parameter or condition will reliably indicate the presence of a leak.
   (2) The parameter level(s) or conditions(s) that shall constitute a leak. This shall be documented by data or calculations showing that the selected levels or conditions will reliably identify leaks. The monitoring must be sufficiently sensitive to determine the range of parameter levels or conditions when the system is not leaking. When the selected parameter level or condition is outside that range, a leak is indicated.
   (3) The monitoring frequency which shall be no less frequent than monthly for the first 6 months and quarterly thereafter to detect leaks.
   (4) The records that will be maintained to document compliance with the requirements of this section.
b. If a substantial leak is identified by methods other than those described in the monitoring plan and the method(s) specified in the plan could not detect the leak, the owner or operator shall revise the plan and document the basis for the changes. The owner or operator shall complete the revisions to the plan no later than 180 days after discovery of the leak.
c. The owner or operator shall maintain, at all times, the monitoring plan that is currently in use. The current plan shall be maintained on-site, or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request. If the monitoring plan is superseded, the owner or operator shall retain the most recent superseded plan at least until 5 years from the date of its creation. The superseded plan shall be retained on-site (or accessible from a central location by computer or other means that provides access within two hours after a request) for at least 6 months after its creation. [40 CFR 63.104(c)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices:

Emission Point	Description	Nominal Capacity 365 day rolling avg mmBtu/hr (HHV)	Date of Construction
H001(1-2-B-3)	#2 Crude Chrg Htr	125	1977
H002 (1-3-B-1)	PITCH (Alcorn) Heater	44	1972
H003 (1-4-B-7,8)	CCR#2 Guardcase Heater	92	1992
H004 (1-4-B-6)	Aliphatics Hotoil Heater	105.5	1972
H005 (1-6-B-1)	Asphalt Heater	20	1972
H006 (1-6-B-2)	Asphalt Heater	20	1972
H007 (1-28-B-01)	ADS Charge Heater	29.2	1972
H008 (1-28-B-02)	ADS #2 Tower Reboiler	15	1972
H009 (1-29-B-01)	SHU Hotoil Heater	68.9	1972
H010 (1-29-B-02)	SHU/SPU Hotoil Heater	61.2	1972
H011 (1-29-B-04)	SHU Rx Charge Heater	68.9	1976
H012 (1-31-B-02)	SPU Rx Charge Heater	11.8	1976
H013 (1-35-B-1)	Bz Recycle Col. Reboiler	70.0	1972
H014 (1-35-B-02)	Cumene Reboiler	20.6	1978
H015 (1-37-B-1)	Lube Vacuum Charge Heater	105	1976
H016 (1-38-B-1,2)	Furfural Unit Heaters	24/94	1976/2000
H017 (1-41-B-1)	No. 5 Crude Charge Heater	330	1997
H018 (1-43-B-1)	LEP Dehex. Reboiler	62	1972
H019 (2-26-B-2)	No.4 Vacuum Heater	128.1	1995
H020 (2-23-B-6)	No.4 Vacuum Charge Heater	159.5	2002
H021 (2-23-B-3)	#3 Crude Charge Heater	177.1	2002
H022 (2-23-B-4)	#3 Crude Charge Heater	177.1	2002
H023 (2-30-B-1)	Sat Gas Fractionat. Reboiler	178.2	1972
H024 (2-31-B-1)	Asphalt Mix Heater	32.6	1994
H025 (2-31-B-2)	SDA Hotoil Heater	64.4	1994
H026 (2-35-B-1,2)	ISOM Unit Heaters	101.5	1972
H027 (2-35-B-3)	ISOM Reg. Vapor Super Htr	3.6	1972
H028 (2-36-B-1)	HF Alky Isostripper Reb.	95	1978
H029 (2-36-B-2)	HF Alky Hot Oil Heater	20	2002
H030 (2-101-B-1,2)	NPT Charge & Reboiler	66/88	1977
H031 (2-102-B-1A)	HPCCR Rx. Heater	159.7	1977
H032 (2-102-B-1B)	HPCCR Rx Heater	170.8	1977
H033 (2-102-B-1C)	HPCCR Rx Heater	123.5	1977
H033 (2-102-B-1D)	HPCCR Rx Heater	39.0	1977
H034 (2-103-B-1)	LPVGO Charge Heater	50	1975
H035 (2-103-B-2)	LPVGO Charge Heater	50	1975
H036 (2-103-B-3)	LPVGO Stripper Reboiler	55	1975
H037 (2-104-B-1)	HPVGO Charge Heater	99	1976
H038 (2-104-B-2)	HPVGO Charge Heater	99	1976
H039 (2-106-B-307)	SRU#1 Thermaloxidizer	28.6	1989

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

Emission Point	Description	Nominal Capacity 365 day rolling avg mmBtu/hr (HHV)	Date of Construction
H040 (2-109-B-1)	FCC Startup Heater	132	1980
H041 (2-116-1,2)	FCC Heat Recovery Units	431 each	1980
H042 (1-35-B-3)	Cumene Column Reboiler	74	1996
H043 (2-121-B-1)	DDS #2RX Charge Heater	61	1993
H044 (2-121-B-2)	DDS #2RX Charge Heater	61	1993
H045 (2-121-B-3)	DDS Stripper Reboiler	94	1993
H046 (1-44-B-1)	CCR #2 Charge Heater	77	1995
H047 (1-44-B-2)	CCR #2 No. 1 Interheater	99	1995
H048 (1-44-B-3)	CCR #2 No. 2 Interheater	77	1995
H049 (1-44-B-4)	CCR #2 No. 3 Interheater	55	1995
H050 (1-44-B-5)	CCR #2 Reboiler	28	1995
H051 (2-122-B-1)	KDS Unit Charge Heater	53.3	2004
H052 (1-6-B-6)	Lube Plant asph.fume burner	19.7	1978
H054 (1-06-TB-1,2)	Tank 118 Heater	5.1 each	1950
H055 (1-6-TB-16)	Asphalt Tank Heater	6.6	1972
H056 (1-6-TB-31)	Asphalt Tank Heater	4.62	1973
H057(1-6-TB-35,36)	Asphalt Tank Heater	8.8	1938
H058 (1-6-TB-72)	Asphalt Tank Heater	4.1	1969
H061 (1-6-TB-86)	Asphalt Tank Heater	8.8	1938
H062 (1-6-TB-129)	Asphalt Tank Heater	6.6	1945
H063 (1-6-TB-135)	Asphalt Tank Heater	6.6	1945
H064 (1-6-TB-833)	Asphalt Tank Heater	6.6	1977
H065 (1-6-TB-844)	Asphalt Tank Heater	6.6	1978
H065 (1-6-TB-849)	Asphalt Tank Heater	6.6	1980
H066 (1-6-TB-851)	Asphalt Tank Heater	4.4	2000
H067 (1-6-TB-871)	Asphalt Tank Heater	3.3	1990
H069 (1-32-TB-19)	Asphalt Tank Heater	3.3	1996
H069 (1-32-TB-44)	Asphalt Tank Heater	3.6	1966
H069 (1-32-TB-67)	Asphalt Tank Heater	1.1	1998
H069 (1-32-TB-98)	Asphalt Tank Heater	2.2	1937
H070 (1-32-TB-850)	Pitch Tank Heater	1.7	1980
H071 (1-36-TB-69,70,71)	Asphalt Tank Heaters	1.8each	1965
H072 (1-6-TB-872)	Asphalt Tank Heater	3.3	1990
H073 (1-25-B-1)	G Oil Charge Heater	53	1992
H076 (2-120-B-2)	#2 SRU Thermaloxidizer	28.6	1991
B003 (1-2-B-4)	Pitch Fractionator Reboiler	43	1990
B005 (2-601-B-5)	#5 Boiler	76.1	1972
B011 (1-9-B-7)	#7 Boiler	78.2	1972
B012 (1-9-B-8)	#8 Boiler	78.2	1972
B013 (1-9-B-588)	#5 Package Boiler	249	2004

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

Emission Point	Description	Nominal Capacity 365 day rolling avg mmBtu/hr (HHV)	Date of Construction
B014 (2-601-B-4)	#4 Boiler	325	1956
B015 (2-601-B-6)	#6 Boiler	76.1	1972
B016 (2-601-B-10)	#10 Boiler	162	1976
B017 (2-601-B-12)	#12 Boiler	206	1992
B019 (East Port#1)	East Portable Boiler#1	45	1996
B020 (West Port#2)	West Portable Boiler#2	45	1996
B021 (Lube Plant#3)	Lube Portable Boiler(North)	95	2003
B022 (Lube Plant#4)	Lube Portable Boiler(South)	95	2003
B023 (1-39-B-1)	#11 Boiler	125	1976
B024 (2-601-B-13)	# 13 Package Boiler	249.9	Proposed
B025 (2-601-B-14)	# 14 Package Boiler	249.9	Proposed
B026 (2-601-B-15)	# 15 Package Boiler	249.9	Proposed

APPLICABLE REGULATIONS:	
401 KAR 59:015	New Indirect Heat Exchangers <u>401 KAR 59:015 Section 3(a) and Section 5 Sulfur Dioxide Standards</u> The above sulfur dioxide emission limitations apply to the indirect heat exchangers as indicated in the following APPLICABLE REGULATIONS, LOW NOx BURNER, and CEMs TABLE. However, the sulfur dioxide standard of 40 CFR 60 Subpart J Section 60.104(a)(1) (maximum 0.10 gr/dscf in fuel gas burned) is more stringent. Therefore, compliance with 60.104(a)(1) is accepted as demonstrating compliance with the 401 KAR 59:015 sulfur dioxide emission limits.
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart A	General Provisions
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial- Institutional Steam Generating Units
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart J	Standards of Performance for Petroleum Refineries

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

APPLICABLE REGULATIONS (Continued):	
401 KAR 61:015	Existing Indirect Heat Exchangers <u>401 KAR 61:015 Section 3(a) and Section 5 Sulfur Dioxide Standards</u> The above sulfur dioxide emission limitations apply to the indirect heat exchangers as indicated in the following APPLICABLE REGULATIONS, LOW NOx BURNER, and CEMs TABLE. However, the sulfur dioxide standard of 40 CFR 60 Subpart J Section 60.104(a)(1) (maximum 0.10 gr/dscf in fuel gas burned) is more stringent. Therefore, compliance with 60.104(a)(1) is accepted as demonstrating compliance with the 401 KAR 61:015 sulfur dioxide emission limits.
401 KAR 61:145	Existing Petroleum Refineries 401 KAR 61:145 Section 3(1) Sulfur Dioxide Standard The above sulfur dioxide standard applies to the indirect heat exchangers as indicated in the following APPLICABLE REGULATIONS, LOW NOx BURNER, and CEMs TABLE. However, the sulfur dioxide standard of 40 CFR 60 Subpart J Section 60.104(a)(1) (maximum 0.10 gr/dscf in fuel gas burned) is equivalent. Therefore, compliance with 60.104(a)(1) is accepted as demonstrating compliance with the 401 KAR 61:145 sulfur dioxide standard.
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boiler and Process Heaters
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart A	General Provisions
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart CC	National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries.
401 KAR 51:160	NOx Requirement for Large Utility & Industrial Boilers.
401 KAR 51:190	Banking & Trading NOx Allowances.
401 KAR 51:220	CAIR NOx Ozone Season Trading Program.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

APPLICABLE REGULATIONS, LOW NOx BURNER, and CEMs TABLE

Emission Point	401 KAR 59:015 or 61:015 for SO2	401 KAR 59:015(4)(1)(b)	401 KAR 59:015(4)(2)(a) and (c)	401 KAR 59:015(4)(2)(b) and (c)	401 KAR 59:015(6)(1)(a)	401 KAR 61:015(4)(1) and (2)	401 KAR 61:145(3)(1)	40 CFR 60 Subpart Db	40 CFR 60 Subpart Dc, 60.48c(g) only	40 CFR 60 J, 60.104(a)(1)	40 CFR 63 Subpart DDDDD 63.7506(b)(1) - existing large gas	40 CFR 63 Subpart DDDDD 63.7506(c)(3) - existing small gas	40 CFR 63 Subpart DDDDD new large gas	Low Nox Burners	PM limit (lb/MMBtu)	H2S Limit (gr/dscf)	US EPA Consent Decree (CD)	CEM & Pollutant Monitored
H001	Xa	X		X						X	X				0.1	0.1	X	
H002	Xa					X	Xb			X	X				0.152	0.1		
H003	Xa	X		X						X	X				0.1	0.1		
H004	Xa					X	Xb			X	X				0.152	0.1		
H005	Xa					X	Xb			X	X				0.152	0.1		
H006	Xa					X	Xb			X	X				0.152	0.1		
H007	Xa					X	Xb			X	X				0.152	0.1		
H008	Xa					X	Xb			X	X				0.152	0.1		
H009	Xa					X	Xb			X	X				0.152	0.1		
H010	Xa					X	Xb			X	X				0.152	0.1		
H011	Xa	X		X						X	X				0.1	0.1		
H012	Xa					X	Xb			X	X				0.152	0.1		
H013	Xa					X	Xb			X	X				0.152	0.1		
H014	Xa	X		X						X	X				0.1	0.1		

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

APPLICABLE REGULATIONS, LOW NOx BURNER, and CEMs TABLE (Continued)

Emission Point	401 KAR 59:015 or 61:015 for SO2	401 KAR 59:015(4)(1)(b)	401 KAR 59:015(4)(2)(a) and (c)	401 KAR 59:015(4)(2)(b) and (c)	401 KAR 59:015(6)(1)(a)	401 KAR 61:015(4)(1) and (2)	401 KAR 61:145(3)(1)	40 CFR 60 Subpart Db	40 CFR 60 Subpart Dc, 60.48c(g) only	40 CFR 60 J, 60.104(a)(1)	40 CFR 63 Subpart DDDDD 63.7506(b)(1) - existing large gas	40 CFR 63 Subpart DDDDD 63.7506(c)(3) - existing small gas	40 CFR 63 Subpart DDDDD new large gas	Low Nox Burners	PM limit (lb/MMBtu)	H2S Limit (gr/dscf)	US EPA Consent Decree (CD)	CEM & Pollutant Monitored
H015	Xa	X		X						X	X			X	0.1	0.1	X	
H016	Xa	X		X						X	X				0.1	0.1		
H017	Xa	X	X		X					X			X	X	0.1	0.1	X	
H018	Xa	X		X						X	X				0.1	0.1		
H019	Xa	X		X						X	X				0.1	0.1		
H020	Xa	X		X						X	X			X	0.1	0.1	X	
H021	Xa	X		X						X	X			X	0.1	0.1	X	NOx O2
H022	Xa	X		X						X	X			X	0.1	0.1	X	NOx O2
H023	Xa					X	Xb			X	X			X	0.152	0.1	X	X
H024	Xa	X		X						X	X				0.1	0.1		NOx O2
H025	Xa	X		X					X	X	X				0.1	0.1		
H026	Xa					X	Xb			X	X				0.152	0.1		
H027	Xa					X	Xb			X	X				0.152	0.1		
H028	Xa	X		X						X	X				0.1	0.1		

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

APPLICABLE REGULATIONS, LOW NOx BURNER, and CEMs TABLE (Continued)

Emission Point	401 KAR 59:015 or 61:015 for SO2	401 KAR 59:015(4)(1)(b)	401 KAR 59:015(4)(2)(a) and (c)	401 KAR 59:015(4)(2)(b) and (c)	401 KAR 59:015(6)(1)(a)	401 KAR 61:015(4)(1) and (2)	401 KAR 61:145(3)(1)	40 CFR 60 Subpart Db	40 CFR 60 Subpart Dc, 60.48c(g) only	40 CFR 60 J, 60.104(a)(1)	40 CFR 63 Subpart DDDDD 63.7506(b)(1) - existing large gas	40 CFR 63 Subpart DDDDD 63.7506(c)(3) - existing small gas	40 CFR 63 Subpart DDDDD new large gas	Low Nox Burners	PM limit (lb/MMBtu)	H2S Limit (gr/dscf)	US EPA Consent Decree (CD)	CEM & Pollutant Monitored
H029	Xa	X		X					X	X	X				0.1	0.1		
H030	Xa	X		X						X	X				0.1	0.1		
H031	Xa	X		X						X	X			X	0.1	0.1	X	
H032	Xa	X		X						X	X			X	0.1	0.1	X	
H033	Xa	X		X						X	X			X	0.1	0.1	X	
H033	Xa	X		X						X	X			X	0.1	0.1		
H034	Xa	X		X						X	X				0.1	0.1		
H035	Xa	X		X						X	X				0.1	0.1		
H036	Xa	X		X						X	X				0.1	0.1		
H037	Xa	X		X						X	X			X	0.1	0.1	X	
H038	Xa	X		X						X	X			X	0.1	0.1	X	
H039										X					NA	0.1		SO2 O2
H040	Xa	X		X						X	X				0.1	0.1		

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

APPLICABLE REGULATIONS, LOW NOx BURNER, and CEMs TABLE (Continued)

Emission Point	401 KAR 59:015 or 61:015 for SO2	401 KAR 59:015(4)(1)(b)	401 KAR 59:015(4)(2)(a) and (c)	401 KAR 59:015(4)(2)(b) and (c)	401 KAR 59:015(6)(1)(a)	401 KAR 61:015(4)(1) and (2)	401 KAR 61:145(3)(1)	40 CFR 60 Subpart Db	40 CFR 60 Subpart Dc, 60.48c(g) only	40 CFR 60 J, 60.104(a)(1)	40 CFR 63 Subpart DDDDD 63.7506(b)(1) - existing large gas	40 CFR 63 Subpart DDDDD 63.7506(c)(3) - existing small gas	40 CFR 63 Subpart DDDDD new large gas	Low Nox Burners	PM limit (lb/MMBtu)	H2S Limit (gr/dscf)	US EPA Consent Decree (CD)	CEM & Pollutant Monitored
H041	Xa	X	X							X	X				0.1	0.1		Nox SO2 CO O2 Opacity
H042	Xa	X		X						X	X				0.1	0.1		
H043	Xa	X		X						X	X				0.1	0.1		
H044	Xa	X		X						X	X				0.1	0.1		
H045	Xa	X		X						X	X				0.1	0.1		
H046	Xa	X		X						X	X				0.1	0.1		
H047	Xa	X		X						X	X				0.1	0.1		
H048	Xa	X		X						X	X				0.1	0.1		
H049	Xa	X		X						X	X				0.1	0.1		
H050	Xa	X		X						X	X				0.1	0.1		
H051	Xa	X		X						X			X		0.1	0.1		
H052															NA	NA		
H054	Xa					X	Xb			X		X			0.152	0.1		

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

APPLICABLE REGULATIONS, LOW NOx BURNER, and CEMs TABLE (Continued)

Emission Point	401 KAR 59:015 or 61:015 for SO2	401 KAR 59:015(4)(1)(b)	401 KAR 59:015(4)(2)(a) and (c)	401 KAR 59:015(4)(2)(b) and (c)	401 KAR 59:015(6)(1)(a)	401 KAR 61:015(4)(1) and (2)	401 KAR 61:145(3)(1)	40 CFR 60 Subpart Db	40 CFR 60 Subpart Dc, 60.48c(g) only	40 CFR 60 J, 60.104(a)(1)	40 CFR 63 Subpart DDDDD 63.7506(b)(1) - existing large gas	40 CFR 63 Subpart DDDDD 63.7506(c)(3) - existing small gas	40 CFR 63 Subpart DDDDD new large gas	Low Nox Burners	PM limit (lb/MMBtu)	H2S Limit (gr/dscf)	US EPA Consent Decree (CD)	CEM & Pollutant Monitored
H055	Xa					X	Xb			X		X			0.152	0.1		
H056	Xa	X		X						X		X			0.1	0.1		
H057	Xa					X	Xb			X		X			0.152	0.1		
H058	Xa					X	Xb			X		X			0.152	0.1		
H061	Xa					X	Xb			X		X			0.152	0.1		
H062	Xa					X	Xb			X		X			0.152	0.1		
H063	Xa					X	Xb			X		X			0.152	0.1		
H064	Xa	X		X						X		X			0.1	0.1		
H065	Xa	X		X						X		X			0.1	0.1		
H065	Xa	X		X						X		X			0.1	0.1		
H066	Xa	X		X						X		X			0.1	0.1		
H067	Xa	X		X														
H067	Xa	X		X						X		X			0.1	0.1		
H067	Xa	X		X						X		X			0.1	0.1		

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

APPLICABLE REGULATIONS, LOW NOx BURNER, and CEMs TABLE (Continued)

Emission Point	401 KAR 59:015 or 61:015 for SO2	401 KAR 59:015(4)(1)(b)	401 KAR 59:015(4)(2)(a) and (c)	401 KAR 59:015(4)(2)(b) and (c)	401 KAR 59:015(6)(1)(a)	401 KAR 61:015(4)(1) and (2)	401 KAR 61:145(3)(1)	40 CFR 60 Subpart Db	40 CFR 60 Subpart Dc, 60.48c(g) only	40 CFR 60 J, 60.104(a)(1)	40 CFR 63 Subpart DDDDD 63.7506(b)(1) - existing large gas	40 CFR 63 Subpart DDDDD 63.7506(c)(3) - existing small gas	40 CFR 63 Subpart DDDDD new large gas	Low Nox Burners	PM limit (lb/MMBtu)	H2S Limit (gr/dscf)	US EPA Consent Decree (CD)	CEM & Pollutant Monitored
H068										X		X			0.1	0.1		
H068										X		X			0.1	0.1		
H069	Xa	X		X						X		X			0.1	0.1		
H069	Xa					X	Xb			X		X			0.152	0.1		
H069	Xa	X		X						X		X			0.1	0.1		
H069	Xa					X	Xb			X		X			0.152	0.1		
H070	Xa	X		X						X		X			0.1	0.1		
H071	Xa					X	Xb			X		X			0.152	0.1		
H071	Xa					X	Xb			X		X			0.152	0.1		
H071	Xa					X	Xb			X		X			0.152	0.1		
H072	Xa					X	Xb			X		X			0.152	0.1		
H073	Xa	X		X						X	X				0.1	0.1		
H076										X					NA	0.1		SO2 O2

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

APPLICABLE REGULATIONS, LOW NOx BURNER, and CEMs TABLE (Continued)

Emission Point	401 KAR 59:015 or 61:015 for SO2	401 KAR 59:015(4)(1)(b)	401 KAR 59:015(4)(2)(a) and (c)	401 KAR 59:015(4)(2)(b) and (c)	401 KAR 59:015(6)(1)(a)	401 KAR 61:015(4)(1) and (2)	401 KAR 61:145(3)(1)	40 CFR 60 Subpart Db	40 CFR 60 Subpart Dc, 60.48c(g) only	40 CFR 60 J, 60.104(a)(1)	40 CFR 63 Subpart DDDDD 63.7506(b)(1) - existing large gas	40 CFR 63 Subpart DDDDD 63.7506(c)(3) - existing small gas	40 CFR 63 Subpart DDDDD new large gas	Low Nox Burners	PM limit (lb/MMBtu)	H2S Limit (gr/dscf)	US EPA Consent Decree (CD)	CEM & Pollutant Monitored
B003	Xa	X		X						X	X				0.1	0.1		
B005	Xa					X	Xb			X	X				0.152	0.1		
B011	Xa					X	Xb			X	X				0.152	0.1		
B012	Xa					X	Xb			X	X				0.152	0.1		
B013	Xa	X		X				X		X			X	X	0.1	0.1		NOx O2 CO SO2
B014	Xa					X	Xb			X	X			X	0.152	0.1		NOx O2
B015	Xa					X	Xb			X	X				0.152	0.1		
B016	Xa	X		X						X	X				0.1	0.1		
B017	Xa	X		X				X		X	X				0.1	0.1		NOx O2
B019	Xa	X		X						X					0.1	0.1		
B020	Xa	X		X						X					0.1	0.1		
B021	Xa	X		X						X				X	0.1	0.1		
B022	Xa	X		X						X				X	0.1	0.1		
B023	Xa	X		X						X	X				0.1	0.1		
B024	Xa	X		X				X		X			X	X	0.1	0.1		NOx O2 CO SO2
B025	Xa	X		X				X		X			X	X	0.1	0.1		NOx O2 CO SO2
B026	Xa	X		X				X		X			X	X	0.1	0.1		NOx O2 CO SO2

Xa - SO_2 limits from 401 KAR 59:015 or 61:015 apply, but 40 CFR 60 Subpart J is more stringent

Xb - H_2S limit from 401 KAR 61:145 applies, but limit is equivalent to 40 CFR 60 Subpart J

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

NON-APPLICABLE REGULATIONS:	
40 CFR 60 Subpart Dc	Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units Rule does not apply to the following units: **B019, East Portable Boiler (#1)** **B020, West Portable Boiler (#2)** **B021, Portable Boiler #3 (Lube North)** **B022, Portable Boiler #4 (Lube South)** Rule does not apply to mobile sources.
40 CFR 60 Subpart J	Standards of Performance for Petroleum Refineries Rule does not apply to **H052, Lube Plant Asphalt Oxidizer Fume Burner (1-006-B-006)**. Emissions from the blowing still combusted in the oxidizer are not considered a fuel gas. [EPA Non-Applicability Clarification issued May 11, 2005]
40 CFR 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boiler and Process Heaters. Existing small gaseous fuel boilers as identified in the APPLICABLE REGULATIONS, LOW NOx BURNER, and CEMs TABLE are not subject to any requirements in 40 CFR 63 Subparts A or DDDDD. [63.7506(c)(3)] Existing large gaseous fuel boilers as identified in the APPLICABLE REGULATIONS, LOW NOx BURNER, and CEMs TABLE are subject only to the initial notification requirements in 40 CFR 63 Subpart A Section 63.9(b). They are not subject to any other requirements of 40 CFR 63 Subparts A or DDDDD. [63.7506(b)(1)]
401 KAR 51:017 and 401 KAR 51:052	Prevention of Significant Deterioration of Air Quality, and Review of New Sources In or Impacting Upon Non-Attainment Areas The permittee has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017 and 401 KAR 51:052. These conditions are identified within the permit.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

NON-APPLICABLE REGULATIONS (Continued):

401 KAR 59:015 Section 6(1)(a), NOx Emission Limitation	NOx emissions from **H041, FCCU North and South Heat Recovery Units (2-116-B-001 and 002),** are not subject to 401 KAR 59:015 Section 6 because the heat input capacity derived from the combustion of fuel (as defined in 401 KAR 59:001) is less than 250 mmBtu/hr. Heat input to these sources is derived from a combination of fuel (refinery fuel gas and natural gas) and FCCU process off-gases. The amount of heat input provided by the FCCU process off-gases is not classified as fuel heat input, and therefore does not apply towards the 250 mmBtu/hr heat input criteria For each of these sources, the amount of heat input provided by fuel is less than 250 mmBtu/hr.
401 KAR 51:160	NOx Requirements for Large Utility and Industrial Boilers Pursuant to 401 KAR 51:160 Section 2(3), **H041, FCCU North and South Heat Recovery Units (2-116-B-001 and 002),** are carbon monoxide boilers associated with fluid catalytic cracking units at a petroleum refinery, and are therefore exempt from the requirements of 401 KAR 51:160.

Specific permit conditions to: preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality and 401 KAR 51:052, Review of New Sources; 40 CFR Part 63 and 40 CFR Part 75 regulations applicable to only one source (40 CFR 63, Subpart LLLLL for H052, Lube Plant Asphalt Oxidizer Fume Burner); specific regulations (401 KAR 51:160, 401 KAR 51:190, and 401 KAR 21:220) are applicable to emission unit B014, Boiler #4; and Consent Decree requirements are included in the permit after the following regulatory limits and compliance requirements applicable to all the heaters, boilers, and combustion devices, as listed in the Applicable Regulations, Low NOx Burner and CEMs Table.

1. **<u>Operating Limitations</u>:**
   a. Pursuant to 40 CFR 60.104(a)(1), no fuel gas combustion device subject to the rule (as indicated in the Applicable Regulations, Low NOx Burner and CEMs Table) shall burn any fuel gas that contains hydrogen sulfide (H_2S) in excess of 230 mg/dscm (one-tenth (0.10) gr/dscf), based on a 3-hour rolling average. The combustion in a flare of process upset gases or fuel gas that is released to the flare as a result of relief valve leakage or other emergency malfunctions is exempt from the limitation. [40 CFR 60.104(a)(1)]

      <u>Compliance Demonstration Method</u>
      The permittee shall utilize the measurements from the H_2S continuous emissions monitors (CEMS) to determine the compliance status of the fuel gas (160 ppmv H_2S is equivalent to 230 mg/dscm). The permittee may, at its option, elect to perform a Reference Method 11 compliance test in lieu of the CEMS to determine its compliance status.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

1. **Operating Limitations (Continued):**

B013 (1-009-B-588)	**No. 5 Package Boiler**
B024, B025, B026 (2-601-B-13, 14, 15)	**No.13, No.14 No.15 Package Boilers**
H051 (2-122-B-001)	**KDS Charge Heater**

b. The No. 5,13,14,15 Package Boilers and KDS Charge Heater must comply with the following applicable provisions of 40 CFR 63 Subpart DDDDD:
   (1) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in 40 CFR 63.6(e)(1)(i). [40 CFR 63.7505 (b)]
   (2) If you have an applicable emission limit or work practice standard, you must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR 63.6(e)(3). [40 CFR 63.7505 (e)]
   (3) Consistent with 40 CFR 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the EPA Administrator's satisfaction that you were operating in accordance with your SSMP. The EPA Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in 63.6(e). [63.7540 (c) and (d)]

c. The No. 5,13,14,15 Package Boilers and KDS Charge Heater must comply with the following applicable provisions of 40 CFR 63 Subpart A: Table 10 to 40 CFR 63 Subpart DDDDD shows which parts of the General Provisions in 40 CFR 63 Subpart A, Sections 63.1 through 63.15 apply to you. [40 CFR 63.7565]

   Compliance Demonstration Method:
   For compliance with the operating limitations for the No. 5, 13, 14, 15 Package Boilers and the KDS Charge Heater, see 4. Specific Monitoring Requirements, 5. Specific Record Keeping Requirements, and 6. Specific Reporting Requirements.

2. **Emission Limitations**:
   a. Pursuant to 401 KAR 59:015(4)(1)(b), no indirect heat exchanger subject to this rule (as indicated in the Applicable Regulations, Low NOx Burner and CEMs Table) shall emit particulate matter in excess of the amount listed in the Applicable Regulations, Low NOx Burner and CEMs Table. Except as provided in 401 KAR 59:015 Section 3(3), no owner or operator of an affected facility subject to the provisions of this regulation shall cause to be discharged into the atmosphere from that affected facility, particulate matter in excess of one-tenth (0.10) pounds per million Btu actual heat input. [401 KAR 59:015(4)(1)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

2. <u>Emission Limitations (Continued)</u>:

b. Pursuant to 401 KAR 61:015(4)(1), no indirect heat exchanger subject to this rule (as indicated in the Applicable Regulations, Low NOx Burner and CEMs Table) shall emit particulate matter in excess of the amount listed in the Applicable Regulations, Low NOx Burner and CEMs Table. Except as provided for in 401 KAR 61:015 Section 3(3), no owner or operator of an affected facility subject to the provisions of this regulation shall cause to be discharged into the atmosphere from that affected facility particulate matter in excess of that specified in Appendix A of 401 KAR 61:015. [401 KAR 61:015(4)(1)] (Refer to the Applicable Regulations, Low NOx Burner and CEMs Table for numerical PM limits.)

c. Pursuant to 401 KAR 59:015(4)(2), except as provided in 401 KAR 59:015 Section 3(3), no indirect heat exchanger subject to this rule (as indicated in the Applicable Regulations, Low NOx Burner and CEMs Table) shall emit visible particulate matter which exhibit greater than twenty (20) percent opacity except:
   (1) That, for indirect heat exchangers with heat input capacity of 250 million BTU per hour or more, a maximum of twenty-seven (27) percent opacity shall be permissible for not more than one (1) six (6) minute period in any sixty (60) consecutive minutes;
   (2) That, for indirect heat exchangers with heat input capacity of less than 250 million BTU per hour, a maximum of forty (40) percent opacity shall be permissible for not more than six (6) consecutive minutes in any sixty (60) consecutive minutes during cleaning the fire box or blowing soot; and
   (3) For emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations. [401 KAR 59:015(4)(2)]

d. Pursuant to 61:015(4)(2)(c), except as provided for in 401 KAR 61:015 Section 3(3), no indirect heat exchanger subject to this rule (as indicated in the Applicable Regulations, Low NOx Burner and CEMs Table) shall emit visible particulate matter which exhibit greater than twenty (20) percent opacity, except: for emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations. [401 KAR 61:015(4)(2)(c)]

   <u>Compliance Demonstration Method:</u>
   While burning only refinery fuel gas and/or natural gas (and regenerator off-gas in the case of the FCCU Heat Recovery Units), the permittee shall be deemed to be in compliance with the applicable particulate matter and opacity standards.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

2. Emission Limitations (Continued):

H017 (1-041-B-001) No. 5 Crude Charge Heater

e. Pursuant to 401 KAR 59:015(6)(1)(a), the No. 5 Crude Charge Heater shall not emit NO_x in excess of 0.20 lb/mmBtu. [401 KAR 59:015(6)(1)(a)]

Compliance Demonstration Method:
As long as the No. 5 Crude Charge Heater is operated with low NO_x burners, the permittee shall be deemed to be in compliance with the applicable NO_x emission standard, based on an emission factor of 90 lbs/mmscf and a fuel heat capacity of 1000 mmBtu/mmscf.

B013 (1-009-B-588) No. 5 Package Boiler
B024, B025, B026 (2-601-B-13, 14, 15) No. 13, No. 14, No. 15 Package Boilers

f. The No. 5,13,14,15 Package Boilers shall comply with the following applicable provisions of 40 CFR 60 Subpart Db, on and after the date on which the initial performance test are completed or are required to be completed under 40 CFR § 60.8, whichever date comes first, no owner or operator of an affected facility which commenced construction or reconstruction after July 9, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides (expressed as NO2) in excess of 86 ng/J (0.20 lb/million Btu) heat input unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, and natural gas. [40 CFR 60.44b(l)(1)]

Compliance Demonstration Method:
Except as provided under paragraph (j) of 40 CFR 60.44, compliance with the emission limits are determined on a 30-day rolling average basis. [40 CFR 60.44b(i)] The unit is monitored for NOx emissions by a continuous emissions monitor (CEM).

B017 (2-601-B-012) No. 12 Boiler

g. The No. 12 Boiler shall comply with the following applicable provisions of 40 CFR 60 Subpart Db. No owner or operator of an affected facility that combusts natural gas and distillate oil with a high heat release rate shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides (expressed as NO2) in excess of 86 ng/J (0.20 lb/million Btu) heat input. [40 CFR 60.44b(a)]

Compliance Demonstration Method:
Except as provided under paragraph (j) of 40 CFR 60.44, compliance with the emission limits are determined on a 30-day rolling average basis. [40 CFR 60.44b(i)] The unit is monitored for NOx emissions by a CEM.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

2. Emission Limitations (Continued):

B013 (1-009-B-588)	**No. 5 Package Boiler**
B024, B025, B026 (2-601-B-13, 14, 15)	**No. 13, No. 14, No. 15 Package Boilers**
H051 (2-122-B-001)	**KDS Charge Heater**

h. The No. 5, 13, 14, 15 Package Boilers and KDS Charge Heater must comply with the following applicable provisions of 40 CFR 63 Subpart DDDDD for new large gaseous fuel units, the facility shall meet the emission limit for Carbon Monoxide of 400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 mmBtu/hr or greater, 3-run average for units less than 100 mmBtu/hr). [63.7500 (a)(1) and emission limit and work practice standard in Table 1 to this subpart that applies to your boiler or process heater, except as provided under 40 CFR 63.7507]

The facility must be in compliance with the emission limits (including operating limits) and the work practice standards in 40 CFR 63 Subpart DDDDD at all times, except during periods of startup, shutdown, and malfunction. [40 CFR 63.7505 (a)]

Compliance Demonstration Method:
For large gaseous units with a heat input capacity of 100 mmBtu/hr or greater (the No. 5, 13, 14, 15 Package Boilers), compliances are demonstrated by using a continuous emission monitoring system for carbon monoxide. For large gaseous units with a heat input capacity of less than 100 mmBtu/hr (the KDS Charge Heater), compliance is demonstrated by conducting a carbon monoxide performance test. [40 CFR 63.7510(c)] The unit is monitored for CO emissions by a continuous emissions monitor (CEM).

H046 (1-044-B-001)	**CCR #2 (LPCCR) Charge Heater**
H047 (1-044-B-002)	**CCR #2 (LPCCR) No. 1 Interheater**
H023 (2-030-B-001)	**Sat Gas Plant Heater**
H031 (2-102-B-001A)	**HPCCR Reactor Heater**
H032 (2-102-B-001B)	**HPCCR Reactor Heater**
H041 (2-116-B-001, 2)	**FCCU South Heat Recovery Units**

i. The above heaters are used as control devices for 40 CFR Subpart CC Group 1 miscellaneous process vents and shall comply with the following applicable provisions of 40 CFR 63 Subpart CC [63.643(a)(2) and (b)]:
(1) The owner or operator of a Group 1 miscellaneous process vent as defined in 40 CFR 63.641 shall comply with the requirements of either paragraphs (a)(1) or (a)(2) of 40 CFR 63.641.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

2. Emission Limitations (Continued):

(2) If a boiler or process heater is used to comply with the percentage of reduction requirement or concentration limit specified in 40 CFR 63.641(a)(2), then the vent stream shall be introduced into the flame zone of such a device, or in a location such that the required percent reduction or concentration is achieved. Testing and monitoring is required only as specified in 40 CFR 63.644(a) and 40 CFR 63.645.

Compliance Demonstration Method:
For compliance with 40 CFR 63.643(a), the facility shall reduce emissions of organic HAP's, using a control device, by 98 weight-percent or to a concentration of 20 parts per million by volume, on a dry basis, corrected to 3 percent oxygen, whichever is less stringent. Compliance can be determined by measuring either organic HAP's or TOC's using the procedures in 40 CFR 63.645. The vent stream shall be introduced into the flame zone.

3. Testing Requirements:

H051 (2-122-B-001)	**KDS Charge Heater**
B024, B025, B026 (2-601-B-13, 14, 15)	**No. 13, No. 14, No. 15 Package Boilers**

a. The KDS Charge Heater and the No. 13, 14, and 15 Package Boilers shall comply with the following applicable provisions of 40 CFR 63 Subpart DDDDD:

(1) For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 mmBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide according to Table 5 to 40 CFR 63 Subpart DDDDD. [63.7510(c)]

(2) If your new or reconstructed affected source commences construction or reconstruction after November 12, 2004, you must demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup of the source. [63.7510(g)]

(3) If you have an applicable work practice standard for carbon monoxide and your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 mmBtu per hour, you must conduct annual performance tests for carbon monoxide according to 63.7520. Each annual performance test must be conducted between 10 and 12 months after the previous performance test. [63.7515(e)]

(4) You must report the results of performance tests and fuel analyses within 60 days after the completion of the performance tests or fuel analyses. The reports for all subsequent performance tests and fuel analyses should include all applicable information required in 40 CFR 63.7550. [63.7515(g)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

3. <u>Testing Requirements (Continued)</u>:

(5) You must conduct all performance tests according to 40 CFR 63.7(c), (d), (f), and (h). You must also develop a site-specific test plan according to the requirements in 63.7(c) if you elect to demonstrate compliance through performance testing. [63.7520(a)]

(6) You must conduct each performance test according to the requirements in Table 5 to 40 CFR 63 Subpart DDDDD. [63.7520(b)]

(7) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to 40 CFR 63 Subpart DDDDD. [63.7520(d)]

(8) You may not conduct performance tests during periods of startup, shutdown, or malfunction. [63.7520(e)]

(9) You must conduct three separate test runs for each performance test required in 40 CFR 63.7520, as specified in 63.7(e)(3). Each test run must last at least 1 hour. [63.7520(f)]

H046 (1-044-B-001)	**CCR #2 (LPCCR) Charge Heater**
H047 (1-044-B-002)	**CCR #2 (LPCCR) No. 1 Interheater**
H023 (2-030-B-001)	**Sat Gas Plant Heater**
H031 (2-102-B-001A)	**HPCCR Reactor Heater**
H032 (2-102-B-001B)	**HPCCR Reactor Heater**
H041 (2-116-B-001, 2)	**FCCU South Heat Recovery Units**

b. The heaters above are used as control devices for 40 CFR 63 Subpart CC Group 1 miscellaneous process vents. Pursuant to the following provisions of 40 CFR 63 Subpart CC, the heaters, above, are exempt from the testing requirements of Subpart CC:

(1) To demonstrate compliance with 40 CFR 63.643, an owner or operator shall follow 40 CFR 63.116, except for 40 CFR 63.116 (a)(1), (d) and (e) of 40 CFR subpart G, except as provided in paragraphs (b) through (d) and paragraph (i) of 40 CFR 63.116. [40 CFR 63.645(a) and (d) referencing 63.116]

All references to 40 CFR 63.116(b)(1) or (b)(2) shall be replaced with paragraphs (d)(1) and (d)(2) of 40 CFR 63.645, respectively. [40 CFR 63.645 (b)]

(i) Any boiler or process heater with a design heat input capacity of 44 megawatts or greater. [40 CFR 63.645 (d)(1)]

(ii) Any boiler or process heater in which all vent streams are introduced into the flame zone. [40 CFR 63.645 (d)(2)]

(2) An owner or operator is not required to conduct a performance test when any control device specified in paragraphs (b)(1) through (b)(5) of 40 CFR 63.116 is used. [63.116 (b)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

4. <u>Specific Monitoring Requirements</u>:

a. In order to demonstrate compliance with the heat input limitations the permittee shall monitor the fuel gas as follows:
   (1) A fuel gas sample shall be collected from each fuel gas drum necessary to characterize the heating value of the fuel combusted in each indirect heat exchanger once every day. Each sample shall be analyzed separately to determine the higher heating value of the fuel gas. In the event that a situation occurs which prevents collection or analysis of a sample required herein and which qualifies as a force majeure event defined as any event arising from causes not reasonably foreseeable and beyond the control of the permittee or the permittee's contractors or consultants, the resolution of the failure to collect or analyze the sample shall be that the requirement for the sample shall be waived by the Division. The sample(s) for the previous and/or following days shall be utilized to determine compliance with the standard for heating value in fuel gas. The permittee shall maintain records of the force majeure event and shall make them available to Division personnel upon request.
   (2) Fuel gas flow shall be determined daily for each indirect heat exchanger by correcting the indirect heater fuel gas flow meter data for fuel gas molecular weight and pressure. Fuel gas flow may also be determined by reference to design capabilities or may be measured collectively.

b. Pursuant to the emission monitoring requirements contained in 40 CFR 60.105(a)(4), the permittee shall monitor hydrogen sulfide (H_2S) concentration in the fuel gas via continuous emission monitors (CEMs) located at each fuel gas drum necessary to characterize the sulfur content of the fuel gas being burned. The CEM shall use reference Method 11 or an alternate method approved by the Division. The averaging time for H_2S in fuel gas shall be a three (3) hour rolling average. As an alternative to the monitoring specified in the permit, the permittee may comply with the most recent Subpart J Alternative Monitoring/Sampling Plan approved by the Division.

c. Continuous monitoring systems shall be installed, calibrated, maintained, and operated by the owner or operator subject to the provisions of 40 CFR 60.105 as follows:
   In place of the SO2 monitor in paragraph (a)(3) of 40 CFR 60.105, an instrument for continuously monitoring and recording the concentration (dry basis) of H2S in fuel gases before being burned in any fuel gas combustion device.
   (1) The span value for this instrument is 425 mg/dscm H2S.
   (2) 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 H2S in the fuel gas being burned.
   (3) The performance evaluations for this H2S monitor under 40 CFR 60.13(c) shall use Performance Specification 7. Method 11 shall be used for conducting the relative accuracy evaluations. [40 CFR 60.105(a)(4)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

4. <u>Specific Monitoring Requirements (Continued)</u>:

d. Owners and operators of all continuous emission monitoring systems installed in accordance with the provisions of this part shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. [40 CFR 60.13(d)(1)]

e. Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under paragraph (d) of 40 CFR 60.13, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows: all continuous monitoring systems referenced by paragraph (c) of 40 CFR 60.13 for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [40 CFR 60.13(e)]

f. Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in 40 CFR 60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period. For continuous monitoring systems other than opacity, 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. For owners and operators complying with the requirements in 40 CFR 60.7(f) (1) or (2), data averages must include any data recorded during periods of monitor breakdown or malfunction. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O2 or ng/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in 40 CFR 60 subparts.
After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g., rounded to the nearest 1 percent opacity). [40 CFR 60.13(h)]

B013 (1-0091-B-588)	**No. 5 Package Boiler**
B024, B025, B026 (2-601-B-13, 14, 15)	**No. 13, No. 14, No. 15 Package Boilers**
B017 (2-601-B-102)	**No. 12 Boiler**

g. The No. 5, 13,14,15 Package Boilers and No. 12 Boiler shall comply with the following applicable provisions of 40 CFR 60 Subpart Db: except as provided under paragraphs (g), (h), and (i) of this 40 CFR 60.48b, the owner or operator of an affected facility shall comply with either paragraphs (b)(1) or (b)(2) of 40 CFR 60.48b.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

4. <u>Specific Monitoring Requirements (Continued)</u>:

(1) Install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere; [40 CFR 60.48b(b)(1)] or

(2) If the owner or operator has installed a nitrogen oxides emission rate continuous emission monitoring system (CEMS) to meet the requirements of part 75 of this chapter and is continuing to meet the ongoing requirements of part 75 of this chapter, that CEMS may be used to meet the requirements of this section, except that the owner or operator shall also meet the requirements of 40 CFR 60.49b. Data reported to meet the requirements of 40 CFR 60.49b shall not include data substituted using the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter. [40 CFR 60.48b(b)(2)]

h. The continuous monitoring systems required under paragraph (b) of 40 CFR 60.48b shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments. [40 CFR 60.48b(c)]

i. The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor required by paragraph (b) of 40 CFR 60.48b and required under 40 CFR 60.13(h) shall be expressed in ng/J or lb/million Btu heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(b). At least 2 data points must be used to calculate each 1-hour average. [40 CFR 60.48b(d)]

j. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems. For affected facilities combusting coal, oil, or natural gas, the span value for nitrogen oxides is determined as follows:
Fuel: Natural gas Span Value: 500 ppm [40 CFR 60.48b(e)]

k. When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days. [40 CFR 60.48b(f)]

l. The owner or operator of an affected facility that has a heat input capacity of 73 MW (250 million Btu/hour) or less, and which has an annual capacity factor for residual oil having a nitrogen content of 0.30 weight percent or less, natural gas, distillate oil, or any mixture of these fuels, greater than 10 percent (0.10) shall:

(1) Comply with the provisions of paragraphs (b), (c), (d), (e)(2), (e)(3), and (f) of 40 CFR 60.48b [40 CFR 60.48b(g)(1)], or

(2) Monitor steam generating unit operating conditions and predict nitrogen oxides emission rates as specified in a plan submitted pursuant to 40 CFR 60.49b(c). [40 CFR 60.48b(g)(2)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

4. Specific Monitoring Requirements (Continued):

B013 (1-009-B-588)	**No. 5 Package Boiler**
B024, B025, B026 (2-601-B-13, 14, 15)	**No. 13, No. 14, No. 15 Package Boilers**

m. The No. 5, 13, 14, 15 Package Boilers must comply with the following applicable provisions of 40 CFR 63 Subpart DDDDD: if you have an applicable work practice standard for carbon monoxide, and your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 mmBtu per hour or greater, you must install, operate, and maintain a continuous emission monitoring system (CEMS) for carbon monoxide according to the procedures in paragraphs (a)(1) through (6) of this section by the compliance date specified in 40 CFR 63.7495.
   (1) Each CEMS must be installed, operated, and maintained according to Performance Specification (PS) 4A of 40 CFR part 60, appendix B, and according to the site-specific monitoring plan developed according to 63.7505(d).
   (2) You must conduct a performance evaluation of each CEMS according to the requirements in 40 CFR 63.8 and according to PS 4A of 40 CFR part 60, appendix B.
   (3) Each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15- minute period.
   (4) The CEMS data must be reduced as specified in 63.8(g)(2).
   (5) You must calculate and record a 30-day rolling average emission rate on a daily basis. A new 30-day rolling average emission rate is calculated as the average of all of the hourly CO emission data for the preceding 30 operating days.
   (6) For purposes of calculating data averages, you must not use data recorded during periods of monitoring malfunctions, associated repairs, out-of control periods, required quality assurance or control activities, or when your boiler or process heater is operating at less than 50 percent of its rated capacity. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out of control and data are not available for required calculations, constitutes a deviation from the monitoring requirements. [63.7525(a)]

n. The No. 5, 13, 14, 15 Package Boilers must comply with the following applicable provisions of 40 CFR 63 Subpart DDDDD:
   (1) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities including, as applicable, calibration checks and required zero and span adjustment, you must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating. [40 CFR 63.7535(b)]
   (2) You may not use data recorded during monitoring malfunctions, associated repairs, or required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system. Boilers and process heaters that have an applicable carbon monoxide work practice standard and are required to install and operate a CEMS, may not use data recorded during periods when the boiler or process heater is operating at less than 50 percent of its rated capacity. [40 CFR 63.7535(c)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

4. <u>Specific Monitoring Requirements (Continued)</u>:

o. The No. 5, 13, 14, 15 Package Boilers must comply with the following applicable provisions of 40 CFR 63 Subpart DDDDD: if you have an applicable work practice standard for carbon monoxide, and you are required to install a CEMS according to 40 CFR 63.7525(a), then you must meet the requirements in paragraphs a)(10)(i) through (iii) of 40 CFR 63.7540.

(1) You must continuously monitor carbon monoxide according to 40 CFR 63.7525(a) and 63.7535. [40 CFR 63.7540(a)(10)(i)]

(2) Maintain a carbon monoxide emission level below your applicable carbon monoxide work practice standard in Table 1 to this subpart at all times except during periods of startup, shutdown, malfunction, and when your boiler or process heater is operating at less than 50 percent of rated capacity. [40 CFR 63.7540(a)(10)(ii)]

(3) Keep records of carbon monoxide levels according to 40 CFR 63.7555(b). [40 CFR 63.7540(a)(10)(iii)]

1-044-B-001	**CCR #2 (LPCCR) Charge Heater**
1-044-B-002	**CCR #2 (LPCCR) No. 1 Interheater**
2-030-B-001	**Sat Gas Plant Heater**
2-102-B-001A	**HPCCR Reactor Heater**
2-102-B-001B	**HPCCR Reactor Heater**
2-116-B-002	**FCCU South Heat Recovery Unit**

p. The above heaters are used as control devices for 40 CFR Subpart CC Group 1 miscellaneous process vents and shall comply with the following applicable provisions of 40 CFR 63 Subpart CC:

(1) Any boiler or process heater with a design heat input capacity greater than or equal to 44 megawatt or any boiler or process heater in which all vent streams are introduced into the flame zone is exempt from monitoring. [40CFR 63.644(a)(3)]

q. Pursuant to 40 CFR 63, Subpart CC, the owner or operator of a Group 1 miscellaneous process vent using a vent system that contains bypass lines that could divert a vent stream away from the control device used to comply with paragraph (a) of 40CFR 63.644 shall comply with either paragraph (c)(1) or (c)(2) of 40 CFR 63.644. Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, pressure relief valves needed for safety reasons, and equipment subject to 63.648 are not subject to 40 CFR 63.644. [40 CFR 63.644(c)]

Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line. [40 CFR 63.644(c)(2)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

5. **Specific Record Keeping Requirements:**
   a. The permittee shall retain the following records for affected facilities subject to the requirements in 40 CFR 60.104(a)(1), as indicated in the Applicable Regulations, Low NOx Burner and CEMs Table:
      (1) Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]
      (2) Any owner or operator subject to the provisions of 40 CFR 60 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 this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows:
         (i) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS sub-hourly measurements as required under paragraph (f) of 40 CFR 60.7, the owner or operator shall retain the most recent consecutive three averaging periods of sub-hourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard. [40 CFR 60.7(f)(1)]
         (ii) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS sub-hourly measurements as required under paragraph (f) of this section, the owner or operator shall retain all sub-hourly measurements for the most recent reporting period. The sub-hourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator. [40 CFR 60.7(f)(2)]
         (iii) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (f) of 40 CFR 60.7, if the Administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source. [40 CFR 60.7(f)(3)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

5. <u>Specific Record Keeping Requirements (Continued)</u>:

B014 (2-601-B-004) No. 4 Boiler

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b. The permittee shall retain the following records for the No. 4 Boiler:
   (1) The rate of fuel burned for each fuel shall be measured daily or at shorter intervals and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. Where the indirect heat exchanger is used to generate electricity, the average electrical output and the minimum and maximum hourly generation rate, shall be measured and recorded daily. [401 KAR 61:015(6)(3)]
   (2) The permittee shall maintain a file of all measurements required by 401 KAR 61:015 and summarized monthly. The record of any such measurement(s) and summary shall be retained for at least two (2) years following the date of such measurements and summaries. [401 KAR 61:015(6)(4)]

B013 (1-009-B-588) No. 5 Package Boiler

B024, B025, B026 (2-601-B-13, 14, 15) No. 13, No. 14, No. 15 Package Boilers

B017 (2-601-B-012) No. 12 Boiler

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c. The above boilers shall comply with the following applicable provisions of 40 CFR 60 Subpart A as specified below:
   (1) Any owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b)]
   (2) Any owner or operator subject to the provisions of 40 CFR 60 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 this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows:
      (i) This paragraph applies to owners or operators required to install a continuous emission monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

5. <u>Specific Record Keeping Requirements (Continued)</u>:

In lieu of maintaining a file of all CEMS sub-hourly measurements as required under paragraph (f) of 40 CFR 60.7, the owner or operator shall retain the most recent consecutive three averaging periods of sub-hourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard. [40 CFR 60.7(f)(1)]

(ii) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS sub-hourly measurements as required under paragraph (f) of 40 CFR 60.7, the owner or operator shall retain all sub-hourly measurements for the most recent reporting period. The sub-hourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator. [40 CFR 60.7(f)(2)]

(iii) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (f) of 40 CFR 60.7, if the Administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source. [40 CFR 60.7(f)(3)]

B013 (1-009-B-588)	**No. 5 Package Boiler**
B024, B025, B026 (2-601-B-13, 14, 15)	**No. 13, No. 14, No. 15 Package Boilers**
B017 (2-601-B-012)	**No. 12 Boiler**

d. The No. 5, 13, 14, 15 Package Boilers and No. 12 Boiler shall comply with the following applicable provisions of 40 CFR 60 Subpart Db: except as provided under paragraph (p) of this 40 CFR 60.49b, the owner or operator of an affected facility subject to the nitrogen oxides standards under 40 CFR 60.44b shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date.

(2) The average hourly nitrogen oxides emission rates (expressed as NO2) (ng/J or lb/million Btu heat input) measured or predicted.

(3) The 30-day average nitrogen oxides emission rates (ng/J or lb/ million Btu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.

(4) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under Sec. 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

5. <u>Specific Record Keeping Requirements (Continued)</u>:

(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.

(6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.

(7) Identification of ``F'' factor used for calculations, method of determination, and type of fuel combusted.

(8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.

(9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1. [40 CFR 60.49b(g)]

e. All records required under 40 CFR 60.49b shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record. [60.49b(o)]

H025 (2-031-B-002)	**SDA Hot Oil Heater**
H029 (2-036-B-002)	**HF Alky Hot Oil Heater**

f. The SDA Hot Oil Heater and HF Alky Hot Oil Heater shall comply with the following provisions of 40 CFR 60 Subpart Dc: the owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day. The owner or operator of an affected facility that only burns very low sulfur fuel oil or other liquid or gaseous fuels with potential sulfur dioxide emissions rate of 140 ng/J (0.32 lb/mmBtu) heat input or less shall record and maintain records of the fuels combusted during each calendar month. [40 CFR 60.48c(g)]

1-009-B-588	**No. 5 Package Boiler**
B024, B025, B026 (2-601-B-13, 14, 15)	**No. 13, No. 14, No. 15 Package Boilers**
2-122-B-001	**KDS Charge Heater**

g. The No. 5, 13, 14, 15 Package Boilers and KDS Charge Heater must comply with the following applicable provisions of 40 CFR 63 Subpart DDDDD:

(1) You must keep records according to 40 CFR 63.7555 (a)(1) through (3).

(i) 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 60 CFR 63.10(b)(2)(xiv). [40 CFR 63.7555(a)(1)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

5. <u>Specific Record Keeping Requirements (Continued)</u>:

(ii) The records in 40 CFR 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. [40 CFR 63.7555(a)(2)]

(iii) Records of performance tests, fuel analyses, or other compliance demonstrations, performance evaluations, and opacity observations as required in 63.10(b)(2)(viii). [40 CFR 63.7555(a)(3)]

(2) Your records must be in a form suitable and readily available for expeditious review, according to 63.10(b)(1). [40 CFR 63.7560(a)]

(3) As specified in 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR 63.7560(b)]

(4) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off site for the remaining 3 years. [40 CFR 63.7560(c)]

B013 (1-009-B-588)	**No. 5 Package Boiler**
B024, B025, B026 (2-601-B-13, 14, 15)	**No. 13, No. 14, No. 15 Package Boilers**

g. The No. 5, 13, 14, 15 Package Boilers must comply with the following applicable provisions of 40 CFR 63 Subpart DDDDD: for each CEMS, CPMS, and COMS, you must keep records according to paragraphs (b)(1) through (5) of 40 CFR 63.7555.

(1) Records described in 40 CFR 63.10(b)(2) (vi) through (xi).

(2) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in 40 CFR 63.6(h)(7)(i) and (ii).

(3) Previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).

(4) Request for alternatives to relative accuracy test for CEMS as required in 40 CFR 63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period. [40 CFR 63.7555(b)]

6. <u>Specific Reporting Requirements</u>:

a. For affected facilities subject to the requirements in 40 CFR 60.104(a)(1), as indicated in the Applicable Regulations, Low NOx Burner and CEMs Table, the permittee shall comply with the following emission reporting requirements contained in 40 CFR 60.105(e)(3)(ii) and 60.106(e):

(1) For the purpose of reports under 40 CFR 60.7(c), periods of excess emissions that shall be determined and reported are defined as follows: (NOTE: All averages, except for opacity, shall be determined as the arithmetic average of the applicable 1-hour averages, e.g., the rolling 3-hour average shall be determined as the arithmetic average of three contiguous 1-hour averages.)

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

6. <u>Specific Reporting Requirements (Continued)</u>:

Sulfur dioxide from fuel gas combustion.

All rolling 3-hour periods during which the average concentration of H2S as measured by the H2S continuous monitoring system under 40 CFR 60.105(a)(4) exceeds 230 mg/dscm (0.10 gr/dscf). [40 CFR 60.106(e)(3)(ii)]

(2) The owner or operator shall determine compliance with the H2S standard in 40 CFR 60.104(a)(1) as follows: Method 11 shall be used to determine the H2S concentration. The gases entering the sampling train should be at about atmospheric pressure. If the pressure in the refinery fuel gas lines is relatively high, a flow control valve may be used to reduce the pressure. If the line pressure is high enough to operate the sampling train without a vacuum pump, the pump may be eliminated from the sampling train. The sample shall be drawn from a point near the centroid of the fuel gas line. The sampling time and sample volume shall be at least 10 minutes and 0.010 dscm (0.35 dscf). Two samples of equal sampling times shall be taken at about 1-hour intervals. The arithmetic average of these two samples shall constitute a run.

For most fuel gases, sampling times exceeding 20 minutes may result in depletion of the collection solution, although fuel gases containing low concentrations of H2S may necessitate sampling for longer periods of time. [40 CFR 60.106(e)]

b. For affected facilities subject to the requirements in 40 CFR 60.104(a)(1), as indicated in the Applicable Regulations, Low NOx Burner and CEMs Table, the permittee shall perform the following reporting requirements of 40 CFR 60 Subpart A: each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and-or summary report form (see paragraph (d) of 40 CFR 60.7) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period. [40 CFR 60.7(c)(1)]

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known) the corrective action taken or preventative measures adopted. [40 CFR 60.7(c)(2)]

(3) 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 and adjustments. [40 CFR 60.7(c)(3)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

6. <u>Specific Reporting Requirements (Continued)</u>:

(4) 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. [40 CFR 60.7(c)(4)]

c. The summary report form shall contain the information and be in the format shown in figure 1 (of 40 CFR 60.7) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator. [40 CFR 60.7(d)(1)]

(2) If the total duration of excess emissions for the reporting period is 1percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted. [40 CFR 60.7(d)(2)]

B013 (1-009-B-588)	**No. 5 Package Boiler**
B024, B025, B026 (2-601-B-13, 14, 15)	**No. 13, No. 14, No. 15 Package Boilers**
B017 (2-601-B-012)	**No. 12 Boiler**

d. The No. 5, 13, 14, 15 Package Boilers and No. 12 Boiler shall comply with the following applicable provisions of 40 CFR 60 Subpart Db: the owner or operator of any affected facility in any category listed in paragraphs (h) (1) or (2) of 40 CFR 60.49b is required to submit excess emission reports for any excess emissions which occurred during the reporting period. [40 CFR 60.49b(h)]

(1) Any affected facility that is subject to the nitrogen oxides standard of 40 CFR 60.44b, and that

(i) Combusts natural gas, distillate oil, or residual oil with a nitrogen content of 0.3 weight percent or less, [40 CFR 60.49b(h)(2)(i)] or

(ii) Has a heat input capacity of 73 MW (250 million Btu/hour) or less and is required to monitor nitrogen oxides emissions on a continuous basis under 40 CFR 60.48b(g)(1) or steam generating unit operating conditions under 40 CFR 60.48b(g)(2). [40 CFR 60.49b(h)(2)(ii)]

(2) For purposes of 40 CFR 60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average nitrogen oxides emission rate, as determined under 40 CFR 60.46b(e), which exceeds the applicable emission limits in 40 CFR 60.44b. [40 CFR 60.49b(h)(4)]

e. The No. 5, 13, 14, 15 Package Boilers and No. 12 Boiler shall comply with the following applicable provisions of 40 CFR 60 Subpart Db:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

6. <u>Specific Reporting Requirements (Continued)</u>:

(1) The owner or operator of any affected facility subject to the continuous monitoring requirements for nitrogen oxides under 40 CFR 60.48(b) shall submit reports containing the information recorded under paragraph (g) of 40 CFR 60.49b. [40 CFR 60.49b(i)]

(2) The owner or operator of an affected facility may submit electronic quarterly reports for SO2 and/or NOx and/or opacity in lieu of submitting the written reports required under paragraphs (h), (i), (j), (k) or (l) of 40 CFR 60.49b. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format. [40 CFR 60.49b(v)]

(3) The reporting period for the reports required under this subpart is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period. [40CFR 60.49b(w)]

B013 (1-009-B-588)	**No. 5 Package Boiler**
B024, B025, B026 (2-601-B-13, 14, 15)	**No. 13, No. 14, No. 15 Package Boilers**
H051 (2-122-B-001)	**KDS Charge Heater**

f. The No. 5, 13, 14, 15 Package Boilers and KDS Charge Heater must comply with the following applicable provisions of 40 CFR 63 Subpart DDDDD: you must report each instance in which you did not meet each emission limit, operating limit, and work practice standard in Tables 1 through 4 to 40 CFR 63 Subpart DDDDD that apply to you. You must also report each instance during a startup, shutdown, or malfunction when you did not meet each applicable emission limit, operating limit, and work practice standard. These instances are deviations from the emission limits and work practice standards in 40 CFR 63 Subpart DDDDD. These deviations must be reported according to the requirements in 40 CFR 63.7550. [63.7540(b)]

(1) You must submit each report in Table 9 to 40 CFR 63 Subpart DDDDD that applies to you. [40 CFR 63.7550(a)]

(2) Unless the EPA Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), you must submit each report by the date in Table 9 to 40 CFR 63 Subpart DDDDD and according to the requirements in 63.7550 (b)(1) through (5). [40 CFR 63.7550(b)]

(3) The compliance report must contain the information required in 40 CFR 63.7550 (c)(1) through (11). [40 CFR 63.7550(c)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

6. Specific Reporting Requirements (Continued):

(4) For each deviation from an emission limit or operating limit in this subpart and for each deviation from the requirements for work practice standards in this subpart that occurs at an affected source where you are not using a CMS to comply with that emission limit, operating limit, or work practice standard, the compliance report must contain the information in paragraphs (c)(1) through (10) of 40 CFR 63.7550 and the information required in paragraphs (d)(1) through (d)(4) of 40 CFR 63.7550. This includes periods of startup, shutdown, and malfunction. [40 CFR 63.7550(d)]

(5) For each deviation from an emission limit or operating limit or work practice standard in this subpart occurring at an affected source where you are using a CMS to comply with that emission limit, operating limit, or work practice standard, you must include the information in paragraphs (c)(1) through (10) of 40 CFR 63.7550 and the information required in paragraphs (e)(1) through (e)(12) of 40 CFR 63.7550. This includes periods of startup, shutdown, and malfunction. [40 CFR 63.7550(e)]

(6) Each affected source that has obtained a Title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in 40 CFR 63 Subpart DDDDD in the semiannual monitoring report. If an affected source submits a compliance report pursuant to Table 9 to 40 CFR 63 Subpart DDDDD along with, or as part of, the semiannual monitoring report, and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in 40 CFR 63 Subpart DDDDD, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority. [40 CFR 63.7550(f)]

(7) If you operate a new gaseous fuel unit that is subject to the work practice standard specified in Table 1 to 40 CFR 63 Subpart DDDDD, and you intend to use a fuel other than natural gas or equivalent to fire the affected unit, you 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 CFR 63.7575. The notification must include the information specified in paragraphs (g)(1) through (5) of 40 CFR 63.7550. [40 CFR 63.7550(g)]

2-122-B-001 KDS Charge Heater

g. The KDS Charge Heater must comply with the following applicable provisions of 40 CFR 63 Subpart DDDDD:

(1) As specified in 40 CFR 63.9(b)(4) and (b)(5), if you startup your new or reconstructed affected source on or after November 12, 2004, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source. [40 CFR 63.7545(c)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

6. <u>Specific Reporting Requirements (Continued)</u>:

(2) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin. [40 CFR 63.7545(d)]

(3) If you are required to conduct an initial compliance demonstration as specified in 40 CFR 63.7530(a), you must submit a Notification of Compliance Status according to 40 CFR 63.9(h)(2)(ii). For each initial compliance demonstration, you 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 CFR 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in 40 CFR 63.7545 (e)(1) through (9), as applicable. [40 CFR 63.7545(e)]

7. <u>Specific Control Equipment Operating Conditions</u>:

None

8. <u>Alternate Operating Scenarios</u>:

None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H001 (1-2-B-3) NO. 2 CRUDE CHARGE HEATER – Limits from Consent Decree and to Preclude PSD

Description:
The No. 2 Crude Charge Heater (No. 1-002-B-003) is an existing heater (constructed 1977) that provides process heat to the No. 2 Crude Unit (No. 1-002). This heater has a nominal rated heat input capacity of 113.6 mmBtu/hr (lower heating value, LHV) and is fired with natural gas and refinery fuel gas.

APPLICABLE REGULATIONS:
See Regulatory Requirements for Heaters, Boilers, and Combustion Devices

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   a. The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources, to the proposed modification. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon non-attainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 51:052. The "synthetic minor" emission limitations are as follows: [Permit VF-02-001 (Revision 3) and revised in V-05-089]

Affected Units	Maximum Emissions (tons/yr)				
	SO2	NOx	VOC	CO	PM10
H001 (1-002-B-003) No. 2 Crude Charge Heater	14.7	54.8	3.0	46.0	4.2

In addition, heat input to the No. 2 Crude Charge Heater shall not exceed 125.0 mmBtu/hr, HHV based on a 365-day rolling average.

Compliance Demonstration Method:
The permittee shall calculate for each day, in tons per year, the rolling 365-day emissions of each pollutant. Emissions of SO_2 shall be based upon data obtained from H_2S CEMS. Emissions of CO and NOx shall be based upon an emission factor from the most recent performance test. Emissions of VOC and PM_{10} shall be based upon emission factors of 0.0055 lb/mmBtu heat input (HHV) and 0.0076lb/mmBtu heat input (HHV), respectively.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H001 (1-2-B-3) NO. 2 CRUDE CHARGE HEATER – Limits from Consent Decree and to Preclude PSD (Continued)

2. Emission Limitations (Continued):

b. (**Federal Origin**) The permittee has elected to accept more stringent NOx limitations for the #2 Crude Charge heaters (1-2-B-003).
   (1) NOx emissions shall not exceed 0.055 lb/mmBtu (HHV) each on a 365-day rolling average.
   (2) NOx emissions shall not exceed 0.11 lb/mmBtu (HHV) on a 3-hour rolling average.
   (3) NOx emissions shall not exceed 43.0 tons/year each on a 365-day rolling sum.

Compliance Demonstration Method:
The permittee shall calculate for each day, in tons per year, the rolling 365-day NOx emissions from the heater. Emissions of NOx shall be based upon data obtained from the NOx CEMS. A performance test was conducted on September 28, 2005 and was in compliance for CO and NOx. The performance test was conducted using the methods incorporated by reference in 401 KAR 50:015, or other methods approved by the Division.

3. Testing Requirements:
None

4. Specific Monitoring Requirements:
None

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain daily records of daily heat input rate and 365-day rolling sum heat input rate to the No. 2 Crude Charge Heater.
b. The permittee shall calculate and maintain daily records of 365-day rolling sum emissions of each pollutant from the No. 2 Crude Charge Heater. Emissions of SO2 shall be based upon data obtained from H2S CEMS. Emissions of CO and NOx shall be based upon an emission factor, expressed in terms of pounds per million Btu heat input, developed from the most recent performance test. Emissions of VOC and PM10 shall be based upon emission factors of 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively.

6. Specific Reporting Requirements:
The permittee shall submit semiannually a report of the 365-day rolling sum emissions of SO_2, NOx, CO, VOC, and PM10 from the No. 2 Crude Charge Heater.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H001 (1-2-B-3) NO. 2 CRUDE CHARGE HEATER – Limits from Consent Decree and to Preclude PSD (Continued)

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H014 (1-35-B-02) #1 CUMUNE COLUMN REBOILER – Limits to Preclude PSD

Description:
Date of Construction: 1978
Fuel Gas: Refinery fuel gas
Control Device: None
Rating: 20.6 mmBtu/hr

APPLICABLE REGULATIONS:
See Regulatory Requirements for Heaters, Boilers, and Combustion Devices

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon non-attainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 51:052. The "synthetic minor" emission limitations are as follows: [Permit S-96-207]

Affected Units	Maximum Emissions (tons/yr)
(1-035-B-002) #1 Cumene Column Reboiler	Nitrogen oxides (NOx) emissions shall not equal or exceed 39 tons/yr

   Compliance Demonstration Method:
   The permittee shall calculate for each day, in tons per year, the 365-day rolling sum NOx emissions. The emission factor used shall be based on the most recent performance test for the heater.

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H014 (1-35-B-02) #1 CUMUNE COLUMN REBOILER – Limits to Preclude PSD (Continued)

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall calculate and maintain daily records of the 365-day rolling sum NOx emissions. The emission factor used shall be based on the most recent performance test.
   b. The permittee shall retain records of the results of the most recent performance tests performed on the heater.

6. **Specific Reporting Requirements:**
   None

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H019 and H020 (2-26-B-2 and 2-23-B-6) NO. 4 VACUUM CHARGE HEATERS – Limits to Preclude PSD

Description:
The existing No. 4 Vacuum Heater (No. 2-026-B-002) is an existing heater (constructed 1995) that provides process heat to the No. 4 Vacuum Unit (No. 2-026). This heater has a nominal rated heat input capacity of 116.5 mmBtu/hr (lower heating value, LHV) and is fired with natural gas and refinery fuel gas.

The No. 4 Vacuum Charge Heater (2-023-B-006), constructed 1977, as modified (modification commenced 2002), this heater will have a nominal rated heat input capacity of 145.0 mmBtu/hr (lower heating value, LHV). It is fired with natural gas and refinery fuel gas.

APPLICABLE REGULATIONS:
See Regulatory Requirements for Heaters, Boilers, and Combustion Devices

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources, to the proposed modification. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon non-attainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 51:052. The "synthetic minor" emission limitations are as follows: [Permit VF-02-001 (Revision 3) and revised in V-05-089]

Affected Units	Maximum Emissions (tons/yr)				
	SO2	NOx	VOC	CO	PM10
H019 (2-026-B-002) No. 4 Vacuum Charge Heater	15.1	39.9	3.1	47.1	4.3
H020 (2-023-B-006) No. 4 Vacuum Charge Heater	18.8	97.8	3.8	58.7	5.3

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H019 and H020 (2-26-B-2 and 2-23-B-6) NO. 4 VACUUM CHARGE HEATERS – Limits to Preclude PSD (Continued)

2. **Emission Limitations (Continued):**
   In addition, heat input to the No. 4 Vacuum Heater (2-26-B-002) shall not exceed 128.1 mmBtu/hr (higher heating value, HHV) and heat input to the No. 4 Vacuum Charge Heater (2-26-B-2) shall not exceed 159.5 mmBtu/hr (higher heating value, HHV). Each of these limits is based on a 365-day rolling average.

   Compliance Demonstration Method:
   The permittee shall calculate for each day, in tons per year, the rolling 365-day emissions of each pollutant from each heater. Emissions of SO_2 shall be based upon data obtained from H_2S CEMS. Emissions of CO and NOx shall be based upon an emission factor from the most recent performance test. Emissions of VOC and PM_{10} shall be based upon emission factors of 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively. Performance tests were conducted for the heaters on June 11, 2004 and were in compliance for CO and NOx. The performance tests were conducted using the methods incorporated by reference in 401 KAR 50:015, or other methods approved by the Division.

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   None

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall maintain daily records of daily heat input rate and 365-day rolling sum heat input rate to the No. 4 Vacuum Charge Heaters.
   b. The permittee shall calculate and maintain daily records of 365-day rolling sum emissions of each pollutant from the No. 4 Vacuum Charge Heaters. Emissions of SO_2 shall be based upon data obtained from H_2S CEMS. Emissions of CO and NOx shall be based upon an emission factor, expressed in terms of pounds per million Btu heat input, developed from the most recent performance test. Emissions of VOC and PM_{10} shall be based upon emission factors of 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H019 and H020 (2-26-B-2 and 2-23-B-6) NO. 4 VACUUM CHARGE HEATERS – Limits to Preclude PSD (Continued)

6. **Specific Reporting Requirements:**
   The permittee shall submit semiannually a report of the 365-day rolling sum emissions of SO_2, NO_X, CO, VOC, and PM10 from the No. 4 Vacuum Charge Heaters.

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H021 and H022 (2-23-B-3 and 2-23-B-4) NO. 3 CRUDE CHARGE HEATERS – Limits to Preclude PSD and Federal Consent Decree

Description:
The No. 3 Crude Charge Heaters (Nos. 2-023-B-003 and 2-023-B-004) are existing heaters (constructed 1972) that provide process heat to the No. 3 Crude Unit (No. 2-023). These heaters are retrofitted with low-NOx burners. As modified (modification commenced 2002), each of these heaters will have a nominal rated heat input capacity of 161 mmBtu/hr (lower heating value, LHV). These heaters are fired with natural gas and refinery fuel gas.

APPLICABLE REGULATIONS:
See Regulatory Requirements for Heaters, Boilers, and Combustion Devices

1. **Operating Limitations:** None

2. **Emission Limitations:**
   a. The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources, to the proposed modification. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon non-attainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 51:052. The "synthetic minor" emission limitations are as follows: [Permit VF-02-001 (Revision 3)]

Affected Units	Maximum Emissions (tons/yr)				
	SO2	NOx (cond. 2.b limit)	VOC	CO	PM10
H021 (2-023-B-003) No. 3 Crude Charge Heater	20.8	54.3 (43.0)	4.65	65.2	5.9
H022 (2-023-B-004) No. 3 Crude Charge Heater	20.8	54.3 (43.0)	4.65	65.2	5.9

In addition, heat input to the No. 3 Crude Charge Heaters shall not exceed 177.1 mmBtu/hr (HHV), each, based on a 365-day rolling average.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H021 and H022 (2-23-B-3 and 2-23-B-4) NO. 3 CRUDE CHARGE HEATERS – Limits to Preclude PSD and Federal Consent Decree (Continued)

Compliance Demonstration Method:
The permittee shall calculate for each day, in tons per year, the rolling 365-day emissions of each pollutant from each heater. Emissions of SO_2 and NO_X shall be based upon data obtained from H_2S and NO_X CEMS. Emissions of CO shall be based upon an emission factor from the most recent performance test. Emissions of VOC and PM_{10} shall be based upon emission factors of 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively. Performance tests were conducted for both the heaters on August 12 and 16, 2005 and were in compliance. The performance test conducted using the methods incorporated by reference in 401 KAR 50:015, or other methods approved by the Division.

b. **(Federal Origin)** The permittee has elected to accept more stringent NOx limitations for the #3 Crude Charge heaters (2-023-B-003 and 004).
   (1) NOx emissions shall not exceed 0.055 lb/mmBtu (HHV) each on a 365-day rolling average.
   (2) NOx emissions shall not exceed 0.11 lb/mmBtu (HHV) on a 3-hour rolling average.
   (3) NOx emissions shall not exceed 43.0 tons/year each on a 365-day rolling sum.

Compliance Demonstration Method:
The permittee shall calculate for each day, in tons per year, the rolling 365-day NOx emissions from the heater. Emissions of NO_X shall be based upon data obtained from the NO_X CEMS.

3. Testing Requirements:
None

4. Specific Monitoring Requirements:
None

5. Specific Recordkeeping Requirements:
a. The permittee shall maintain daily records of daily heat input rate and 365-day rolling sum heat input rate to the No. 3 Crude Charge Heaters.
b. The permittee shall calculate and maintain daily records of 365-day rolling sum emissions of each pollutant from the No. 3 Crude Charge Heaters. Emissions of SO2 and NOX shall be based upon data obtained from H2S and NOx CEMS. Emissions of CO shall be based upon an emission factor, expressed in terms of pounds per million Btu heat input, developed from the most recent performance test. Emissions of VOC and PM10 shall be based upon emission factors of 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H021 and H022 (2-23-B-3 and 2-23-B-4) NO. 3 CRUDE CHARGE HEATERS – Limits to Preclude PSD and Federal Consent Decree (Continued)

6. **Specific Reporting Requirements:**
   The permittee shall submit semiannually a report of the 365-day rolling sum emissions of SO_2, NO_X, CO, VOC, and PM_{10} from the No. 3 Crude Charge Heaters.

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H023 (2-30-B-1) SAT GAS PLANT HEATER– Limits to Preclude PSD and Federal Consent Decree

Description:
The Sat Gas Plant Heater (No. 2-030-B-001) is an existing heater (constructed 1972) that provides process heat to the Sat Gas Plant (No. 2-030). This heater has been retrofitted with low-NOx burners. This heater has a nominal rated heat input capacity of 162 mmBtu/hr (lower heating value, LHV). This heater is fired with natural gas and refinery fuel gas.

APPLICABLE REGULATIONS:
See Regulatory Requirements for Heaters, Boilers, and Combustion Devices

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   a. The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources, to the proposed modification. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon non-attainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 51:052. The "synthetic minor" emission limitations are as follows: [Permit VF-02-001 (Revision 3)]

Affected Units	Maximum Emissions (tons/yr)				
	SO2	NOx (cond. 2.b limit)	VOC	CO	PM10
H023 (2-030-B-001) Sat Gas Plant Heater	21.0	54.6 (43.0)	4.3	65.6	5.9

In addition, heat input to the Sat Gas Plant Heater shall not exceed 178.2 mmBtu/hr HHV, based on a 365-day rolling average.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H023 (2-30-B-1) SAT GAS PLANT HEATER– Limits to Preclude PSD and Federal Consent Decree (Continued)

2. Emission Limitations (Continued):

Compliance Demonstration Method:
The permittee shall calculate for each day, in tons per year, the rolling 365-day emissions of each pollutant from the heater. Emissions of SO_2 and NO_X shall be based upon data obtained from H_2S and NO_X CEMS. Emissions of CO, VOC and PM_{10} shall be based upon emission factors of 0.084 lb/mmBtu heat input (HHV), 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively.

b. **(Federal Origin)** The permittee has elected to accept more stringent NOx limitations for the Sat Gas Heater (2-030-B-001).
   (1) NOx emissions shall not exceed 0.055 lb/mmBtu (HHV) each on a 365-day rolling average.
   (2) NOx emissions shall not exceed 0.11 lb/mmBtu (HHV) on a 3-hour rolling average.
   (3) NOx emissions shall not exceed 43.0 tons/year each on a 365-day rolling sum.

Compliance Demonstration Method:
The permittee shall calculate for each day, in tons per year, the rolling 365-day NOx emissions from the heater. Emissions of NO_X shall be based upon data obtained from the NO_X CEMS.

3. Testing Requirements:
None

4. Specific Monitoring Requirements:
None

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain daily records of daily heat input rate and 365-day rolling sum heat input rate to the Sat Gas Plant Heater.
b. The permittee shall calculate and maintain daily records of 365-day rolling sum emissions of each pollutant from the Sat Gas Plant Heater. Emissions of SO_2 and NO_X shall be based upon data obtained from H_2S and NO_X CEMS. Emissions of CO, VOC and PM_{10} shall be based upon emission factors of 0.084 lb/mmBtu heat input (HHV), 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H023 (2-30-B-1) SAT GAS PLANT HEATER– Limits to Preclude PSD and Federal Consent Decree (Continued)

6. **Specific Reporting Requirements:**
   The permittee shall submit semiannually a report of the 365-day rolling sum emissions of SO_2, NO_X, CO, VOC, and PM10 from the Sat Gas Plant Heater.

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H028 (2-36-B-1) HF ALKY ISOSTRIPPER REBOILER – Limits to Preclude PSD

Description:
The HF Alky Isostripper Reboiler (No. 2-036-B-001) is an existing heater (constructed 1978) that provides process heat to the HF Alky Unit (No. 2-036). This heater has a nominal rated heat input capacity of 86 mmBtu/hr (lower heating value, LHV) and is fired with natural gas and refinery fuel gas.

APPLICABLE REGULATIONS:
See Regulatory Requirements for Heaters, Boilers, and Combustion Devices

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources, to the proposed modification. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon non-attainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 51:052. The "synthetic minor" emission limitations are as follows: [Permit VF-02-001 (Revision 3)]

Affected Units	Maximum Emissions (tons/yr)				
	SO2	NOx	VOC	CO	PM10
H028 (2-036-B-001) HF Alky Isostripper Reboiler	11.1	41.4	2.3	34.8	3.1

In addition, heat input to the HF Alky Isostripper Reboiler shall not exceed 95 mmBtu/hr (HHV). Each of these limits is based on a 365-day rolling average.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H028 (2-36-B-1) HF ALKY ISOSTRIPPER REBOILER – Limits to Preclude PSD (Continued)

Compliance Demonstration Method:
The permittee shall calculate for each day, in tons per year, the rolling 365-day emissions of each pollutant. Emissions of SO_2 shall be based upon data obtained from H_2S CEMS. Emissions of CO and NO_X shall be based upon an emission factor from the most recent performance test. Emissions of VOC and PM_{10} shall be based upon emission factors of 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively. A performance test was conducted on September 14, 2005 and was in compliance. The performance test was conducted using the methods incorporated by reference in 401 KAR 50:015, or other methods approved by the Division.

3. **Testing Requirements:**
None

4. **Specific Monitoring Requirements:**
None

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall maintain daily records of daily heat input rate and 365-day rolling sum heat input rate to the HF Alky Isostripper Reboiler.
   b. The permittee shall calculate and maintain daily records of 365-day rolling sum emissions of each pollutant from the HF Alky Isostripper Reboiler. Emissions of SO_2 shall be based upon data obtained from H_2S CEMS. Emissions of CO and NO_X shall be based upon an emission factor, expressed in terms of pounds per million Btu heat input, developed from the most recent performance test. Emissions of VOC and PM_{10} shall be based upon emission factors of 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively.

6. **Specific Reporting Requirements:**
The permittee shall submit semiannually a report of the 365-day rolling sum emissions of SO_2, NO_X, CO, VOC, and PM10 from the HF Alky Isostripper Reboiler.

7. **Specific Control Equipment Operating Conditions:**
None

8. **Alternate Operating Scenarios:**
None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H029 (2-36-B-2) HF ALKY HOT OIL HEATER – Limits to Preclude PSD

Description:
The HF Alky Hot Oil Heater (No. 2-036-B-002) was installed 2003 that provides hot oil for process heat to the HF Alky Unit (No. 2-036). This heater has a nominal rated heat input capacity of 18 mmBtu/hr (lower heating value, LHV) and is fired with natural gas and refinery fuel gas.

APPLICABLE REGULATIONS:
See Regulatory Requirements for Heaters, Boilers, and Combustion Devices

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources, to the proposed modification. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon non-attainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 51:052. The "synthetic minor" emission limitations are as follows: [Permit VF-02-001 (Revision 3)]

Affected Units	Maximum Emissions (tons/yr)				
	SO2	NOx	VOC	CO	PM10
H029 (2-036-B-002) HF Alky Hot Oil Heater	2.3	8.7	0.5	7.3	0.7

In addition, heat input to the HF Alky Hot Oil Heater shall not exceed 20 mmBtu/hr HHV. Each of these limits is based on a 365-day rolling average.

Compliance Demonstration Method:
The permittee shall calculate for each day, in tons per year, the rolling 365-day emissions of each pollutant. Emissions of SO_2 shall be based upon data obtained from H_2S CEMS. Emissions of NO_X, CO, VOC and PM_{10} shall be based upon emission factors of 0.10 lb/mmBtu heat input (HHV), 0.084 lb/mmBtu heat input (HHV), 0.0055 lb/mmBtu heat input (HHV), and 0.0076 lb/mmBtu heat input (HHV), respectively.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H029 (2-36-B-2) HF ALKY HOT OIL HEATER – Limits to Preclude PSD (Continued)

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   None

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall maintain daily records of daily heat input rate and 365-day rolling sum heat input rate to the HF Alky Hot Oil Heater.
   b. The permittee shall calculate and maintain daily records of 365-day rolling sum emissions of each pollutant from the HF Alky Isostripper Reboiler. Emissions of SO_2 shall be based upon data obtained from H_2S CEMS. Emissions of NO_X, CO, VOC and PM_{10} shall be based upon emission factors of 0.10 lb/mmBtu heat input (HHV), 0.084 lb/mmBtu heat input (HHV), 0.0055 lb/mmBtu heat input (HHV), and 0.0076 lb/mmBtu heat input (HHV), respectively.

6. **Specific Reporting Requirements:**
   The permittee shall submit semiannually a report of the 365-day rolling sum emissions of SO_2, NO_X, CO, VOC, and PM10 from the HF Alky Hot Oil Heater.

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H034, H035, and H036 (2-103-B-1, 2-103-B-2, and 2-103-B-3) LPVGO HYDROTREATER HEATERS – Limits to Preclude PSD

Description:
The refinery includes three fired heaters (constructed 1975) that provide process heat to the Low-Pressure Vacuum Gas Oil (LPVGO) Hydrotreater (Unit No. 2-103): The LPVGO Hydrotreater Charge Heaters (Nos. 2-103-B-001 and 2-103-B-002) and the LPVGO Hydrotreater Stripper Heater (No. 2-103-B-003). Each of these heaters is fired with natural gas and refinery fuel gas.

APPLICABLE REGULATIONS:
See Regulatory Requirements for Heaters, Boilers, and Combustion Devices

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources, to the proposed modification. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon non-attainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 51:052. The "synthetic minor" emission limitations are as follows: [Permit VF-02-001 (Revision 3)]

Affected Units	Maximum Emissions (tons/yr)				
	SO2	NOx	VOC	CO	PM10
H034 (2-103-B-001) LPVGO Hydrotreater Charge Heater	5.8	21.7	1.2	18.2	1.6
H035 (2-103-B-002) LPVGO Hydrotreater Charge Heater	5.8	21.7	1.2	18.2	1.6
H036 (2-103-B-003) LPVGO Hydrotreater Sripper Heater	6.5	24.1	1.3	20.2	1.8

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H034, H035, and H036 (2-103-B-1, 2-103-B-2, and 2-103-B-3) LPVGO HYDROTREATER HEATERS – Limits to Preclude PSD

In addition, heat input to the LPVGO Hydrotreater Charge Heaters shall not exceed 50 mmBtu/hr HHV, each heater, and heat input to the LPVGO Hydrotreater Stripper Reboiler shall not exceed 55 mmBtu/hr HHV. Each of these limits is based on a 365-day rolling average.

2. **Emission Limitations (Continued):**
   Compliance Demonstration Method:
   The permittee shall calculate for each day, in tons per year, the rolling 365-day emissions of each pollutant from each heater. Emissions of SO_2 shall be based upon data obtained from H_2S CEMS. Emissions of CO and NOx shall be based upon an emission factor from the most recent performance test. Emissions of VOC and PM_{10} shall be based upon emission factors of 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively. Performance tests were conducted on the heaters on June 1, 2004 and August 3 and 5, 2005 and were in compliance. The performance tests were conducted using the methods incorporated by reference in 401 KAR 50:015, or other methods approved by the Division.

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   None

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall maintain daily records of daily heat input rate and 365-day rolling sum heat input rate to the LPVGO Hydrotreater Fired Heaters.
   b. The permittee shall calculate and maintain daily records of 365-day rolling sum emissions of each pollutant from the LPVGO Hydrotreater Fired Heaters. Emissions of SO_2 shall be based upon data obtained from H_2S CEMS. Emissions of CO and NOx shall be based upon an emission factor, expressed in terms of pounds per million Btu heat input, from the most recent performance test. Emissions of VOC and PM_{10} shall be based upon emission factors of 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively.

6. **Specific Reporting Requirements:**
   The permittee shall submit semiannually a report of the 365-day rolling sum emissions of SO_2, NOx, CO, VOC, and PM_{10} from the LPVGO Hydrotreater Fired Heaters.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H034, H035, and H036 (2-103-B-1, 2-103-B-2, and 2-103-B-3) LPVGO HYDROTREATER HEATERS – Limits to Preclude PSD

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H037 an H038 (2-104-B-1 and 2-104-B-2) HPVGO HYDROTREATER HEATERS – Limits to Preclude PSD and Federal Consent Decree

Description:
The HPVGO Hydrotreater Charge Heaters (Nos. 2-104-B-001 and 2-104-B-002, constructed 1976) provide process heat to the High-Pressure Vacuum Gas Oil (HPVGO) Hydrotreater (Unit No. 2-104). These heaters are fired with natural gas and refinery fuel gas. These heaters have been retrofit with low-NOx burners.

APPLICABLE REGULATIONS:
See Regulatory Requirements for Heaters, Boilers, and Combustion Devices

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   a. The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources, to the proposed modification. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon non-attainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 51:052. The "synthetic minor" emission limitations are as follows: [Permit VF-02-001 (Revision 3)]

Affected Units	Maximum Emissions (tons/yr)				
	SO2	NOx	VOC	CO	PM10
H037 (2-104-B-001) HPVGO Hydrotreater Charge Heater	11.7	23.8	2.4	36.4	3.3
H038 (2-104-B-002) HPVGO Hydrotreater Charge Heater	11.7	23.8	2.4	36.4	3.3

In addition, heat input to the HPVGO Hydrotreater Charge Heaters shall not exceed 99 mmBtu/hr HHV, each heater, based on a 365-day rolling average.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H037 an H038 (2-104-B-1 and 2-104-B-2) HPVGO HYDROTREATER HEATERS – Limits to Preclude PSD and Federal Consent Decree (Continued)

2. Emission Limitations (Continued):

Compliance Demonstration Method:
The permittee shall calculate for each day, in tons per year, the rolling 365-day emissions of each pollutant from each heater. Emissions of SO_2 shall be based upon data obtained from H_2S CEMS. Emissions of CO and NO_X shall be based upon an emission factor from the most recent performance test. Emissions of VOC and PM_{10} shall be based upon emission factors of 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively. Performance tests were conducted on the heaters on May 26, 2004 and were in compliance for CO and NOx.

b. **(Federal Origin)** The permittee has elected to accept more stringent NOx limitations for the HPVGO Hydrotreater Heaters (2-104-B-001 and 002).
   (1) NOx emissions shall not exceed 0.055 lb/mmBtu (HHV) during the 3-hour average period of the performance test.
   (2) NOx emissions shall not exceed 24.0 tons/year each on a 365-day rolling sum.

Compliance Demonstration Method:
The permittee shall calculate for each day, in tons per year, the rolling 365-day NOx emissions from the heater. Emissions of NO_X shall be based upon an emission factor from the most recent performance test.

3. Testing Requirements:
None

4. Specific Monitoring Requirements:
None

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain daily records of daily heat input rate and 365-day rolling sum heat input rate to the HPVGO Hydrotreater Fired Heaters.
b. The permittee shall calculate and maintain daily records of 365-day rolling sum emissions of each pollutant from the HPVGO Hydrotreater Fired Heaters. Emissions of SO_2 shall be based upon data obtained from H_2S CEMS. Emissions of CO and NO_X shall be based upon an emission factor, expressed in terms of pounds per million Btu heat input, developed from the most recent performance test. Emissions of VOC and PM_{10} shall be based upon emission factors of 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H037 an H038 (2-104-B-1 and 2-104-B-2) HPVGO HYDROTREATER HEATERS – Limits to Preclude PSD and Federal Consent Decree (Continued)

6. **Specific Reporting Requirements:**
   The permittee shall submit semiannually a report of the 365-day rolling sum emissions of SO_2, NO_X, CO, VOC, and PM10 from the HPVGO Hydrotreater Fired Heaters.

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H0039, H041, and H076 (2-106-B-307, 2-116-1,2, and 2-120-B-2) SRU THERMAL OXIDIZERS AND FCCU HEAT RECOVERY UNITS – Limits to Preclude PSD

Description:
Exhaust gases from the catalyst regenerator within the FCCU (Unit No. 2-109) are conveyed to two existing heat recovery units (ID Nos. 2-116-B-001 and 2-116-B-002) for heat recovery. Each of these heat recovery units has a nominal rated heat input capacity of 392 mmBtu/hr (lower heating value, LHV) from natural gas, refinery fuel gas, and regenerator offgas. In addition, heat input to each of these heat recovery units shall not exceed 431 mmBtu/hr (HHV) based on a 365-day rolling average.

Exhaust gases from the SCOT Units (Unit Nos. 2-107 and 2-120) within the Sulfur Recovery Plant (see the "Process Units" section of this permit) are conveyed to two existing thermal oxidizers. Each of these thermal oxidizers (Unit Nos. 2-106-B-307 and 2-120-B-002) has a nominal rated heat input capacity of 26 mmBtu/hr (lower heating value, LHV) from natural gas and refinery fuel gas. In addition, heat input to each thermal oxidizer shall not exceed 28.6 mmBtu/hr (HHV) based on 365-day rolling average.

APPLICABLE REGULATIONS:
See Regulatory Requirements for Heaters, Boilers, and Combustion Devices

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources, to the proposed modification. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon non-attainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 401 KAR 51:052. [Permit VF-02-001 (Revision 3)]

   a. The allowable emissions from the SRU thermal oxidizers (Unit Nos. 2-106-B-307 and 2-120-B-002) are included in the "synthetic minor" emission limitations for the Sulfur Recovery Plant. (See the "Process Units" section of this permit.)

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H0039, H041, and H076 (2-106-B-307, 2-116-1,2, and 2-120-B-2) SRU THERMAL OXIDIZERS AND FCCU HEAT RECOVERY UNITS – Limits to Preclude PSD

b. The allowable emissions from the FCCU heat recovery units (ID Nos. 2-116-B-001 and 2-116-B-002) are included in the "synthetic minor" emission limitations for the FCCU. (See the "Process Units" section of this permit.)

3. Testing Requirements:
None

4. Specific Monitoring Requirements:
None

5. Specific Recordkeeping Requirements:
None

6. Specific Reporting Requirements:
None

7. Specific Control Equipment Operating Conditions:
None

8. Alternate Operating Scenarios:
None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)
H043, H044, and H045 (2-121-B-1, 2-121-B-2, 2-121-B-3) DISTILLATE DESULFURIZER HEATERS – Limits to Preclude PSD

Description:
The refinery includes three fired heaters (constructed 1993) that provide process heat to the Distillate Desulfurizer (Unit No. 2-121): The Distillate Desulfurizer Reactor Charge Heaters (Nos. 2-121-B-001 and 2-121-B-002) and the Distillate Desulfurizer Stripper Reboiler (No. 2-121-B-003). Each of these heaters is fired with natural gas and refinery fuel gas.

APPLICABLE REGULATIONS:
See Regulatory Requirements for Heaters, Boilers, and Combustion Devices

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources, to the proposed modification. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon non-attainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 51:052. The "synthetic minor" emission limitations are as follows: [Permit C-91-051 (Revision 3) and Permit VF-02-001 (Revision 3)]

Affected Units	Maximum Emissions (tons/yr)				
	SO2	NOx	VOC	CO	PM10
H043 (2-121-B-001) DDS Reactor Charge Heater	7.1	10.47	1.5	22.3	2.0
H044 (2-121-B-002) DDS Reactor Charge Heater	7.1	10.47	1.5	22.3	2.0
H045 (2-121-B-003) DDS Reactor Stripper Reboiler	11.0	17.8	2.3	34.4	3.1

In addition, heat input to the Distillate Desulfurizer Reactor Charge Heaters shall not exceed 61 mmBtu/hr, each heater, and heat input to the Distillate Desulfurizer Stripper Reboiler shall not exceed 94 mmBtu/hr HHV. Each of these limits is based on a 365-day rolling average.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H043, H044, and H045 (2-121-B-1, 2-121-B-2, 2-121-B-3) DISTILLATE DESULFURIZER HEATERS – Limits to Preclude PSD

2. **Emission Limitations (Continued):**
   Compliance Demonstration Method:
   The permittee shall calculate for each day, in tons per year, the rolling 365-day emissions of each pollutant from each heater. Emissions of SO_2 shall be based upon data obtained from H_2S CEMS. Emissions of NO_X shall be based upon an emission factor from the most recent performance test. Emissions of CO, VOC and PM_{10} shall be based upon emission factors of 0.084 lb/mmBtu heat input (HHV), 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively. Performance tests were conducted on May 12, July 22 and August 20, 2004 for the heaters for CO and NOx and were in compliance with the synthetic minor limits.

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   None

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall maintain daily records of daily heat input rate and 365-day rolling sum heat input rate to the Distillate Desulfurizer Fired Heaters.
   b. The permittee shall calculate and maintain daily records of 365-day rolling sum emissions of each pollutant from the Distillate Desulfurizer Fired Heaters. Emissions of SO_2 shall be based upon data obtained from H_2S CEMS. Emissions of NO_X shall be based upon an emission factor, expressed in terms of pounds per million Btu heat input, developed from the most recent performance test. Emissions of CO, VOC and PM_{10} shall be based upon emission factors of 0.084 lb/mmBtu heat input (HHV), 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively.

6. **Specific Reporting Requirements:**
   The permittee shall submit semiannually a report of the 365-day rolling sum emissions of SO_2, NO_X, CO, VOC, and PM10 from the Distillate Desulfurizer Fired Heaters.

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H046, H047, H048, H049, and H050 (1-44-B-1, 1-44-B-2, 1-44-B-3, 1-44-B-4, and 1-44-B-5) CCR #2 HEATERS – Limits to Preclude PSD and State-Origin Requirements from O-93-016 Revision 1

Description:
LPCCR Unit heaters use refinery or natural gas. There are no emission control devices for the heaters. Fired Duty (HHV) and date of construction are shown below.

Unit:	Heater		Duty	Date of construction:
CCR #2	Charge Heater 1-044-B-001		77 mmBtu/hr	1995
CCR #2	No. 1 Interheater	1-044-B-002	99 mmBtu/hr	1995
CCR #2	No. 2 Interheater	1-044-B-003	77 mmBtu/hr	1995
CCR #2	No. 3 Interheater	1-044-B-004	55 mmBtu/hr	1995
CCR #2	Debut. Reboiler	1-044-B-005	28 mmBtu/hr	1995

APPLICABLE REGULATIONS:
See Regulatory Requirements for Heaters, Boilers, and Combustion Devices

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   a. The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon non-attainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 51:052. The "synthetic minor" emission limitations are as follows: [Permit C-92-033 (Revision 2)]

Affected Units	Maximum Emissions (tons/yr)
H046 (1-044-B-001) CCR #2 Charge Heater H047 (1-044-B-002) CCR #2 No. 1 Interheater H048 (1-044-B-003) CCR #2 No. 2 Interheater H049 (1-044-B-004) CCR #2 No. 3 Interheater H050 (1-044-B-005) CCR #2 Reboiler	Total nitrogen oxides (NOx) and sulfur dioxide (SOx) emissions shall not equal or exceed 39 tons/yr for each pollutant.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)
H046, H047, H048, H049, and H050 (1-44-B-1, 1-44-B-2, 1-44-B-3, 1-44-B-4, and 1-44-B-5)
CCR #2 HEATERS – Limits to Preclude PSD and State-Origin Requirements from O-93-016 Revision 1 (Continued)

2. **Emission Limitations (Continued):**
   Additional State-only Limits per permit # O-93-016 (Revision 1)
   b. Spent gas catalyst usage for Charge Heater (1-044-B-001) shall not exceed 20,410 lb/year.

      Compliance Demonstration Method:
      Compliance with this limit may be demonstrated by the vendor design.

   c. Regenerated catalyst vent gas usage for the Interheater (1-044-B-002) shall not exceed 15,770 lb/year and compliance with this limit may be demonstrated by the vendor design.

      Compliance Demonstration Method:
      The permittee shall calculate for each day, in tons per year, the 365-day rolling sum total NOx and SOx emissions. The emission factors used shall be based on the most recent performance test for the heaters.

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   None

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall calculate and maintain daily records of the 365-day rolling sum total NOx emissions. The emission factors used shall be based on the most recent performance test
   b. The permittee shall retain records of the results of the most recent performance tests performed on the heaters.

6. **Specific Reporting Requirements:**
   None

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H051 (2-122-B-1) KDS CHARGE HEATER – Limits to Preclude PSD

Description:
The KDS Charge Heater (2-122-B-001) is a process heater in the KDS Unit. This indirect-fired heater is used to raise the temperature of the feed material entering the KDS reactor. The heater is fired with natural gas or refinery fuel gas and has a maximum heat input capacity of 53.3 mmBtu/hr (HHV basis).

APPLICABLE REGULATIONS:
See Regulatory Requirements for Heaters, Boilers, and Combustion Devices

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources, to the proposed modification. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon non-attainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 51:052. The "synthetic minor" emission limitations are as follows: [Permit VF-04-001]

Affected Units	Maximum Emissions (tons/yr)				
	SO2	NOx	VOC	CO	PM10
H051 (2-122-B-001) KDS Charge Heater	6.30	11.7	1.3	19.6	1.8

Compliance Demonstration Method:
The permittee shall calculate for each day, in tons per year, the rolling 365-day emissions of each pollutant from the heater. Emissions of SO_2 shall be based upon data obtained from H_2S CEMS. Emissions of NOx shall be based upon emission factors from the most recent performance test. Emissions of CO, VOC and PM_{10} shall be based upon AP-42 emission factors of 0.084 lb/mmBtu heat input (HHV), 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H051 (2-122-B-1) KDS CHARGE HEATER – Limits to Preclude PSD (Continued)

3. **Testing Requirements:**
   a. Performance testing shall be conducted to demonstrate compliance with the KDS Charge Heater synthetic minor NO_X emission limitation listed above.
   b. Performance testing shall be completed within 180 days after startup. The performance testing shall be conducted using the methods incorporated by reference in 401 KAR 50:015, or other methods approved by the Division.
   c. The permittee shall submit to the Division a performance test protocol not less than 30 days prior to conducting performance testing. The performance test protocol shall specify, at a minimum, the NO_X test method.

4. **Specific Monitoring Requirements:**
   None

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall maintain daily records of daily heat input rate and 365-day rolling sum heat input rate to the KDS Charge Heater.
   b. The permittee shall calculate and maintain daily records of 365-day rolling sum emissions of each pollutant from the KDS Charge Heater. Emissions of SO_2 shall be based upon data obtained from H_2S CEMS. Emissions of NO_X shall be based upon an emission factor, expressed in terms of pounds per million Btu heat input, developed from the most recent performance test. Emissions of CO, VOC and PM_{10} shall be based upon AP-42 emission factors of 0.084 lb/mmBtu heat input (HHV), 0.0055 lb/mmBtu heat input (HHV) and 0.0076 lb/mmBtu heat input (HHV), respectively.

6. **Specific Reporting Requirements:**
   The permittee shall submit semiannually a report of the 365-day rolling sum emissions of SO_2, NO_X, CO, VOC, and PM10 from the KDS Charge Heater.

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H052 (1-6-B-6) LUBE PLANT ASPHALT FUME BURNER – Limits for 40 CFR 63, LLLLL

Description:
The fume burner is used to manufacture the road asphalt of different grades from Lube Vacuum Tower bottoms and contains a blowing still, in which air is blown through asphalt flux to change the softening point and penetration rate of the asphalt flux, creating oxidized asphalt.
Controls: off gas from the asphalt oxidizer goes to the 1-6-B6 heater
Max fired duty: 17.9 mmBtu/hr
Date of construction: 1978

APPLICABLE REGULATIONS:
40 CFR 63, LLLLL – National Emission Standards for Hazardous Air Pollutants: Asphalt Processing and Asphalt Roofing Manufacturing

1. **Operating Limitations:**
   a. Pursuant to 40 CFR 63.8684, the facility must operate the unit at a 3-hour rolling average temperature above 1350°F measured in the burner radiant section.

      Compliance Demonstration Method:
      The performance test conducted on August 30, 2006 established the operating limit temperature, which demonstrated compliance, based on emissions less than 20 ppmv THC, on a dry basis corrected to 3 percent oxygen.

   b. Pursuant to 40 CFR 63.8685, the following general compliance requirements apply:
      (1) You must be in compliance with the emission limitations (including operating limits) in 40 CFR 63 Subpart LLLLL at all times, except during periods of startup, shutdown, and malfunction.
      (2) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in 40 CFR 63.6(e)(1)(i).
      (3) You must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR 63.6(e)(3).
      (4) You must develop and implement a written site-specific monitoring plan according to the provisions in 40 CFR 63.8688(g) and (h).

      Compliance Demonstration Method:
      For compliance demonstration with the general requirements from 40 CFR 63 Subpart LLLLL, refer to Section F.7 through F.9.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H052 (1-6-B-6) LUBE PLANT ASPHALT FUME BURNER – Limits for 40 CFR 63, LLLLL (Continued)

2. **Emission Limitations:**
   Pursuant to 40 CFR 63.8684, the facility shall reduce total hydrocarbon (THC) mass emissions by 95 percent, or to a concentration of 20 ppmv, on a dry basis corrected to 3 percent oxygen.

   Compliance Demonstration Method:
   The performance test conducted on August 30, 2006 demonstrated compliance, based on emissions less than 20 ppmv THC, on a dry basis corrected to 3 percent oxygen.

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   a. Pursuant to 40 CFR 63.8688(a), you must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the following:
      (1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period.
      (2) To determine the 3-hour average, you must:
         i. Have a minimum of four successive cycles of operation to have a valid hour of data.
         ii. Have valid data from at least three of four equally spaced data values for that hour from a CPMS that is not out-of-control according to your site-specific monitoring plan.
         iii. Determine the 3-hour average of all recorded readings for each operating day, except as stated in 40 CFR 63.8690(c). You must have at least two of the three hourly averages for that period using only hourly average values that are based on valid data (*i.e.,* not from out-of-control periods).
      (3) You must record the results of each inspection, calibration, and validation check.

   b. Pursuant to 40 CFR 63.8688(b), for each temperature monitoring device, you must meet the requirements in 40 CFR 63.8688(a) and the following:
      (1) Locate the temperature sensor in a position that provides a representative temperature.
      (2) For a noncryogenic temperature range, use a temperature sensor with a minimum measurement sensitivity of 2.8 °C or 1.0 percent of the temperature value, whichever is larger.
      (3) If a chart recorder is used, it must have a sensitivity in the minor division of at least 20 °F.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H052 (1-6-B-6) LUBE PLANT ASPHALT FUME BURNER – Limits for 40 CFR 63, LLLLL (Continued)

4. Specific Monitoring Requirements (Continued):

(4) Perform an accuracy check at least semiannually or following an operating parameter deviation:
   i. According to the procedures in the manufacturer's documentation; or
   ii. By comparing the sensor output to redundant sensor output; or
   iii. By comparing the sensor output to the output from a calibrated temperature measurement device; or
   iv. By comparing the sensor output to the output from a temperature simulator.

(5) Conduct accuracy checks any time the sensor exceeds the manufacturer's specified maximum operating temperature range or install a new temperature sensor.

(6) At least quarterly or following an operating parameter deviation, perform visual inspections of components if redundant sensors are not used.

c. Pursuant to 40 CFR 63.8688(f), as an option to installing the CPMS specified in paragraph (a) of this section, you may install a continuous emissions monitoring system (CEMS) or a continuous opacity monitoring system (COMS) that meets the requirements specified in 40 CFR 63.8 and the applicable performance specifications of 40 CFR part 60, appendix B.

d. Pursuant to 40 CFR 63.8688(g), for each monitoring system required in this section, you must develop and make available for inspection by the permitting authority, upon request, a site-specific monitoring plan that addresses the following:
   (1) Installation of the CPMS, CEMS, or COMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.,* on or downstream of the last control device);
   (2) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system; and
   (3) Performance evaluation procedures and acceptance criteria (*e.g.,* calibrations).

e. Pursuant to 40 CFR 63.8688(h), In your site-specific monitoring plan, you must also address the following:
   (1) Ongoing operation and maintenance procedures in accordance with the general requirements of 40CFR 63.8(c)(1), (c)(3), (c)(4)(ii), (c)(7), and (c)(8);
   (2) Ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR 63.8(d); and
   (3) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of 40CFR 63.10(c), (e)(1), and (e)(2)(i).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H052 (1-6-B-6) LUBE PLANT ASPHALT FUME BURNER – Limits for 40 CFR 63, LLLLL (Continued)

4. Specific Monitoring Requirements (Continued):

f. Pursuant to 40 CFR 63.8688(i), you must conduct a performance evaluation of each CPMS, CEMS, or COMS in accordance with your site-specific monitoring plan.

g. Pursuant to 40 CFR 63.8688(j), you must operate and maintain the CPMS, CEMS, or COMS in continuous operation according to the site-specific monitoring plan.

5. Specific Recordkeeping Requirements:

a. Pursuant to 40 CFR 63.8694(a), you must keep the following records:
   (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in 40CFR 63.10(b)(2)(xiv).
   (2) The records in 40 CFR 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.
   (3) Records of performance tests, performance evaluations, and opacity and visible emission observations as required in 40 CFR 63.10(b)(2)(viii).

b. Pursuant to 40 CFR 63.8694(b), you must keep the records in 40 CFR 63.6(h)(6) for visible emission observations.

c. Pursuant to 40 CFR 63.8694(c), you must keep the records required in Table 5 to this subpart to show continuous compliance with each operating limit that applies to you.

d. Pursuant to 40 CFR 63.8694(d), records of any shared equipment determinations as specified in 40 CFR 63.8682(b).

e. Pursuant to 40 CFR 63.8695(a), your records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1).

f. Pursuant to 40 CFR 63.8695(b), as specified in 40 CFR 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

g. Pursuant to 40 CFR 63.8695(c), You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). You can keep the records offsite for the remaining 3 years.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

H052 (1-6-B-6) LUBE PLANT ASPHALT FUME BURNER – Limits for 40 CFR 63, LLLLL (Continued)

6. **Specific Reporting Requirements:**
   Pursuant to 40 CFR 63.8693, the permittee shall submit each report in Table 6 of 40 CFR 63 Subpart LLLLL and 40 CFR 63.8693 that applies to you.

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)
B013 (2-009-B-588) NO. 5 PACKAGE BOILER – Limits to Preclude PSD

Description:
The No. 5 Package Boiler (1-009-B-588) was installed in September 2004, that provides steam for process heat throughout the refinery. This boiler has a maximum heat input capacity of 249 mmBtu/hr (higher heating value, HHV). This unit has Low NOx burners and Flue Gas Recirculation and is fired with natural gas and refinery fuel gas.

APPLICABLE REGULATIONS:
See Regulatory Requirements for Heaters, Boilers, and Combustion Devices

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   The SO2, NOx, VOC, CO, PM10 emissions from No. 5 Package Boiler along with FCCU (including Heat Recovery Units North and South) emissions shall not exceed the values listed in Section B, under emission point 'FCCU' in the Process Units section of this permit. The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources, to the proposed modification. [Permit VF-02-001 (Revision 3)]

   Compliance Demonstration Method:
   For compliance with synthetic minor limits, see FCCU synthetic minor emission limitations and compliance demonstration method, in the Process Units section of this permit. SO_2, NOx and CO emissions shall be monitored by CEMS. VOC and PM/PM10 emissions shall be stack tested. A report of CEMS data and stack tests shall be submitted to the Permit review branch verifying the emission factors for SO_2, NOx, CO, VOC and PM emission estimates within the time frames as listed in Section G of the permit.

3. **Testing Requirements:**
   Refer to testing requirements for FUG043, FLUIDIZED CATALYTIC CRACKING UNIT (FCCU) in Section B.

4. **Specific Monitoring Requirements:**
   None

5. **Specific Recordkeeping Requirements:**
   None

6. **Specific Reporting Requirements:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)
B013 (2-009-B-588) NO. 5 PACKAGE BOILER – Limits to Preclude PSD

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

B024, B025, B026 (2-601- B-13, 14, 15) NO. 13, No. 14, No. 15 PACKAGE BOILERS – Limits to Preclude PSD

Description:
The No. 13, 14, 15 Package Boilers (2-601-B-13, 14, 15) are proposed to be installed in early 2007, that will provide steam for process heat throughout the refinery. Each boiler will have a maximum heat input capacity of 249 mmBtu/hr (higher heating value, HHV). These boilers will have Low NOx burners and Flue Gas Recirculation and is fired with natural gas and refinery fuel gas. Seven existing boilers will be taken out of services once the new boilers are commissioned.

APPLICABLE REGULATIONS:
See Regulatory Requirements for Heaters, Boilers, and Combustion Devices

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   The net emissions increase for any regulated New Source Review pollutant shall be less than the significant emissions increase level, as defined in 401 KAR 51:001, for 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources, for the installation and operation of emission units B024, B025, and B026. [Permit V-05-089 R1]

   Compliance Demonstration Method:
   The increase in potential emissions from the 3 boilers is below the significant emissions level of 40 tons per year for VOC. A netting analysis was performed for SO2, NOx, CO, and PM10 emissions. The total project increases for installation of the 3 boilers shall be equal to or less than the values indicated in the table below.

Emission Unit	Maximum Firing Rate (mmBtu/hr)	Emission Changes (tons/yr)				
		SO_2	NO_x	VOC	CO	PM_{10}
B024 (2-601-B-13)	249.9	29.6	38.3	5.9	43.8	8.2
B025 (2-601-B-14)	249.9	29.6	38.3	5.9	43.8	8.2
B026 (2-601-B-15)	249.9	29.6	38.3	5.9	43.8	8.2
Total Project Increases		88.8	114.9	17.7	131.4	24.6
Significant Level		40	40	40	100	15
Requires Netting		yes	yes	no	yes	yes

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

B024, B025, B026 (2-601- B-13, 14, 15) NO. 13, No. 14, No. 15 PACKAGE BOILERS – Limits to Preclude PSD (Continued)

The existing boilers in the table below shall cease operation within sixty (60) days after achieving the maximum production rate from emission units B024, B025, and B026, but not later than 180 days after initial start-up of emission units B024, B025, and B026. The permittee shall conduct a performance demonstration (test) on the emission units B024, B025, and B026, in accordance with 401 KAR 50:055, General compliance requirements.

Emission Unit	Maximum Firing Rate (mmBtu/hr)	Emission Changes (tons/yr)			
		SO_2	NO_x	CO	PM_{10}
B005 (2-601-B-5)	29.1	1.1	12.7	4.2	0.9
B015 (2-601-B-6)	36.9	0.9	16.2	13.3	1.2
B011 (1-9-B-7)	30.2	1.6	11.9	10.9	1.0
B012 (1-9-B-8)	23.8	2.1	9.4	8.6	0.8
B016 (2-601-B-10)	56.5	2.1	39.6	20.4	1.8
B023 (1-39-B-11)	52.3	1.6	38.9	18.8	1.7
B017 (2-601-B-12)	104.6	3.2	40.9	37.7	3.4
Total Project Decreases		12.6	169.6	113.9	10.8

The net change in emissions from the boiler consolidation project is as follows:

Net change in emissions from the proposed Boiler consolidation project	Emission Changes (tons/yr)			
	SO_2	NO_x	CO	PM_{10}
	76.2	-54.7	17.5	13.8

To preclude applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality (PSD), and 401 KAR 51:052, Non-attainment New Source Review, the net emissions decrease listed below are accomplished through netting analyses for each pollutant, in conjunction with emissions limits on each of the emission units that were modified in the Asset Development (Modernization) projects.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

B024, B025, B026 (2-601- B-13, 14, 15) NO. 13, No. 14, No. 15 PACKAGE BOILERS – Limits to Preclude PSD (Continued)

Summary of Net Emissions Increases:

Project	Emission Changes (tons/year)			
	SO2	NOx	CO	PM10
Refinery modernization project	-3739	-745	-29	-33
KDS project	8.3	32.4	25.8	2.3
HPCCR heater tube coating	0.0	3.4	0.0	0.1
HPVGO exchangers	2.4	13.6	6.8	0.6
Lube Vacuum unit modification	4.9	13.8	7.8	2.0
Boiler consolidation project	76.2	-54.7	17.5	13.8
Total	-3640	-732	28.9	-13.5

For compliance with synthetic minor limits, see FCCU synthetic minor emission limitations and compliance demonstration methods, in the Process Units section of this permit. SO2, NOx and CO emissions shall be monitored by CEMS. VOC and PM/PM10 emissions shall be stack tested. A report of CEMS data and stack tests shall be submitted to the permit review branch verifying the emission factors for SO2, NOx, CO, VOC and PM emissions estimates within the time frames as listed in Section G of this permit.

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   None

5. **Specific Recordkeeping Requirements:**
   The permittee shall calculate and maintain daily records of 365-day rolling sum NOx emissions from the boiler. Emissions of NOx shall be based upon data from the NOx CEM.

6. **Specific Reporting Requirements:**
   The permittee shall submit semiannually a report of the 365-day rolling sum NOx emissions from the boiler.

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

B014 (2-601-B-4) NO. 4 BOILER

Description:
The No. 4 Boiler (2-601-B-004) was installed in 1956, and provides steam for process heat throughout the refinery. No. 4 Boiler was retrofit with low-NOx burners. A stack test was performed on January 28, 1993 after the low-NOx burner retrofit. An emission factor equal to 0.31 lb/mmBtu was developed. This boiler has a maximum heat input capacity of 325 mmBtu/hr (higher heating value, HHV). The boiler is fired with natural gas and refinery fuel gas.

APPLICABLE REGULATIONS
See Regulatory Requirements for Heaters, Boilers, and Combustion Devices.
401 KAR 51:160, 401 KAR 51:190, and 401 KAR 51:220

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   a. The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources, to the proposed modification. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon non-attainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 51:052. The "synthetic minor" emission limitations are as follows: [VF-01-005].

Affected Units	Maximum Emissions (tons/yr)
	NOx
B014 (2-601-B-004) No. 4 Boiler	401

Compliance Demonstration Method:
The permittee shall calculate for each day, in tons per year, the rolling 365-day emissions of NOx from the boiler. Emissions of NOx shall be based upon data from the NOx CEM.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Points: Heaters, Boilers, and Combustion Devices (Continued)

B014 (2-601-B-4) NO. 4 BOILER – Limits to Preclude PSD (Continued)

b. The permittee shall comply with current 401 KAR 51:160, 401 KAR 51:190 and 401 KAR 51:220 for NOx requirements, NOx allowances, and CAIR NOx ozone seanson tranding program procedures and requirements.

Compliance Demonstration Method:
Refer to Section F.9 for annual compliance certification.

3. **Testing Requirements:**
None

4. **Specific Monitoring Requirements:**
None

5. **Specific Recordkeeping Requirements:**
The permittee shall calculate and maintain daily records of 365-day rolling sum NOx emissions from the boiler. Emissions of NOx shall be based upon data from the NOx CEM.

6. **Specific Reporting Requirements:**
The permittee shall submit semiannually a report of the 365-day rolling sum NOx emissions from the boiler.

7. **Specific Control Equipment Operating Conditions:**
None

8. **Alternate Operating Scenarios:**
None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS TABLE

Em. Point	Ref. ID	Description	Date Const. or Mod.	401 KAR 59:046	401 KAR 61:135	40 CFR 60 Subpart GGG	40 CFR 60 Subpart J	40 CFR 60 Subpart VV	40 CFR 61 Subpart J	40 CFR 63 CC	40 CFR 63 H	40 CFR 63 UUU	No Catalyst Regen
FUG001	1-044	#2 CCR (LPCCR)	1995		X	Super-ceded by Subpart CC		Per Subpart CC		Subpart VV LDAR Option		For Catalytic Reform-ing Units	
FUG002	1-038	Furfural Extraction (Furfural)	1977		X	Super-ceded by Subpart CC		Per Subpart CC		Subpart VV LDAR Option			
FUG003	1-028	Aromatic Desulfurization (ADS)	1963		X			Super-ceded by Subpart H	Super-ceded by Subpart H		X		X
FUG004	1-002	#2 Crude Unit	2002	X				Per Subpart CC		Subpart VV LDAR Option			
FUG005	2-037	In-Line Gasoline Blender	1960		X			Per Subpart CC		Subpart VV LDAR Option			
FUG011	1-035	Cumene Unit	1997		X			Super-ceded by Subpart H	Super-ceded by Subpart H		X		X
FUG012	2-121	Distillate De-Sulfurizer #2 (DDS)	2002	X		Super-ceded by Subpart CC				Subpart H LDAR Option	Per Subpart CC		X
FUG018	2-036	HF Alky Unit	2002	X				Per Subpart CC		Subpart VV LDAR Option			
FUG019	1-025	Spec-G Oil Treatment (G Oil Treater)	1991		X	Super-ceded by Subpart CC		Per Subpart CC		Subpart VV LDAR Option			
FUG021	1-041	#5 Crude Unit	1979		X			Per Subpart CC		Subpart VV LDAR Option			

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS TABLE (Continued)

Em. Point	Ref. ID	Description	Date Const. or Mod.	401 KAR 59:046	401 KAR 61:135	40 CFR 60 Subpart GGG	40 CFR 60 Subpart J	40 CFR 60 Subpart VV	40 CFR 61 Subpart J	40 CFR 63 CC	40 CFR 63 H	40 CFR 63 UUU	No Catalyst Regen
FUG022	1-037	Lube Vacuum Unit	1977		X			Per Subpart CC		Subpart VV LDAR Option			
FUG023	1-045	Non-Exempt Mineral Spirits Unit (NEMS)	1983		X	Super-ceded by Subpart CC		Per Subpart CC		Subpart VV LDAR Option			
FUG026	2-027	Butane Isomerization unit (New BIU)	1990	X		Super-ceded by Subpart CC		Per Subpart CC		Subpart VV LDAR Option			X
FUG027	1-039	MEK Dewaxing (MEK)	1977		X	Super-ceded by Subpart CC		Per Subpart CC		Subpart VV LDAR Option			
FUG028	1-027	Sulfolane Unit	1992		X				Super-ceded by Subpart H		X		
FUG030	2-024	Foul water treating unit	1960		X								
FUG031	2-106, 107, 119, 120	Sulfur Recovery Plant (SRU #1 and #2)	1976	X			For Claus Sulfur Recovery Plants	Per Subpart CC		Subpart VV LDAR Option			
FUG032	2-030	Saturate Gas Plant (Sat Gas)	1969		X			Per Subpart CC		Subpart VV LDAR Option			
FUG033	2-026	#4 Vacuum unit	2002	X		Super-ceded by Subpart CC				Subpart H LDAR Option	Per Subpart CC		
FUG034	1-003	Pitch Unit (formerly Dubbs)	1926		X	Super-ceded by Subpart CC		Per Subpart CC		Subpart VV LDAR Option			

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS TABLE (Continued)

Em. Point	Ref. ID	Description	Date Const. or Mod.	401 KAR 59:046	401 KAR 61:135	40 CFR 60 Subpart GGG	40 CFR 60 Subpart J	40 CFR 60 Subpart VV	40 CFR 61 Subpart J	40 CFR 63 CC	40 CFR 63 H	40 CFR 63 UUU	No Catalyst Regen
FUG035	1-043	Light Ends Processing (LEP)	1979		X			Per Subpart CC		Subpart VV LDAR Option			
FUG036	2-102	Continuous Catalytic Regeneration Reformer (HPCCR)	1979		X			Per Subpart CC		Subpart VV LDAR Option		For Catalytic Reform-ing Units	
FUG037	2-115	C3/C4 Hydrogenation Unit (C3/C4 Hydrog)	1985		X	Super-ceded by Subpart CC		Per Subpart CC		Subpart VV LDAR Option			
FUG038	2-023	#3 Crude Unit	2002	X		Super-ceded by Subpart CC				Subpart H LDAR Option	Per Subpart CC		
FUG040	2-035	Isomerization Unit (C5/C6 Isom)	1972		X			Per Subpart CC		Subpart VV LDAR Option			X
FUG041, FUG042	2-002, 110, 113, 114	Gas Concentration Plants	2002	X		Super-ceded by Subpart CC				Subpart H LDAR Option	Per Subpart CC		
FUG043	2-109	FCCU	2002	X		Super-ceded by Subpart CC	For FCCU Catalyst Regener-ators			Subpart H LDAR Option	Per Subpart CC	For Catalytic Cracking Units	
FUG044	2-104	High Pressure Vaccum Gas Oil Hydrotreater (HPVGO)	2002	X		Super-ceded by Subpart CC				Subpart H LDAR Option	Per Subpart CC		X
FUG046	2-116	Fluidized Bed Boilers	1983	X		Super-ceded by Subpart CC				Subpart H LDAR Option	Per Subpart CC		
FUG048	2-103	Low Pressure Vaccum Gas Oil Hydrotreater (LPVGO)	2002	X		Super-ceded by Subpart CC				Subpart H LDAR Option	Per Subpart CC		X

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS TABLE (Continued)

Emission Point	Ref. ID	Description	Date Const, Reconst, or Mod.	401 KAR 59:046	401 KAR 61:135	40 CFR 60 Subpart GGG	40 CFR 60 Subpart J	40 CFR 60 Subpart VV	40 CFR 61 Subpart J	40 CFR 63 CC	40 CFR 63 H	40 CFR 63 UUU	No Catalyst Regen
FUG049	1-066	Petrochem Fuel Gas Scrubber System	1998		X			Per Subpart CC		Subpart VV LDAR Option			
FUG049	2-066	NNA fuel gas scrubber system	1976		X			Per Subpart CC		Subpart VV LDAR Option			
FUG050	2-101	Naptha Pre-Treater (NPT)	1977		X			Per Subpart CC		Subpart VV LDAR Option			X
FUG051	2-031	Solvent De-Asphalting Unit (SDA)	1995		X	Super-ceded by Subpart CC		Per Subpart CC		Subpart VV LDAR Option			
FUG052	1-033	Solvent Hydrotreating Unit (SHU)	1967		X			Per Subpart CC		Subpart VV LDAR Option			X
FUG053	1-031	Specialty Pretreating Unit (SPU)	1967		X			Per Subpart CC		Subpart VV LDAR Option			X
FUG057	2-122	Kerosene Desulfurization (KDS) Unit - New	2006	X		Super-ceded by Subpart CC				Subpart H LDAR Option	Per Subpart CC		
FUG080		Stranded Gas Compressor System	2004	X		Super-ceded by Subpart CC		Per Subpart CC		Subpart VV LDAR Option			
FUG081	1-029	Aliphatics Unit	1963		X	Super-ceded by Subpart CC		Per Subpart CC		Subpart VV LDAR Option			
FUG100	1-105	Lube plant asphalt oxidizer	1979		X	Super-ceded by Subpart CC		Per Subpart CC		Subpart VV LDAR Option			
Not listed	2-025	Polymerization Unit (Poly) NOT IN USE	1941		X			Per Subpart CC		Subpart VV LDAR Option			X

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

APPLICABLE REGULATIONS	
401 KAR 59:046	Selected New Petroleum Refining Processes and Equipment
401 KAR 61:135	Selected Existing Petroleum Refining Processes and Equipment
401 KAR 61:137	Leaks from Existing Petroleum Refinery Equipment, Not in Process Unit Table: Compliance demonstrated by compliance with the monitoring program for 40 CFR 63, subpart H or 40 CFR 63 subpart CC
401 KAR 63:010	Fugitive Emissions
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart A	General Provisions
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart GGG	Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart J	Standards of Performance for Equipment Leaks of VOC in Petroleum Refineries
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart VV	Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry
401 KAR 57:002 incorporating by reference 40 CFR 61 Subpart J	National Emission Standards for Equipment Leaks (Fugitive Emission Sources) of Benzene
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart CC	National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart H	National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

APPLICABLE REGULATIONS	
401 KAR 63:002 incorporating by reference 40 CFR Part 63 Subpart UUU	National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units, and Sulfur Recovery Units

NON-APPLICABLE REGULATIONS

401 KAR 59:015, New indirect heat exchangers: The provisions of 401 KAR 59:015 do not apply to FUG 100 - Lube Plant Asphalt Oxidizer (1-105) and associated Fume Burner, because the unit is not an indirect heat exchanger.

401 KAR 61:035, Existing Process Gas Streams is not applicable. Although there are streams that commenced before June 6, 1979 and the facility is located in a Class VA county for sulfur dioxide, all hydrogen sulfide and sulfur dioxide vent emissions from refinery process units are subject to other standards of performance for either hydrogen sulfide or sulfur dioxide. Therefore, 401 KAR 61:035, Section 3 and 4, are not applicable for hydrogen sulfide and sulfur dioxide limits. Boyd county is an attainment area for carbon monoxide, therefore, 401 KAR 61:035, Section 5, is not applicable for carbon monoxide limits.

401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart UU, Standards of Performance for Asphalt Processing: The provisions of 40 CFR 60 Subpart UU do not apply to FUG 100 - Lube Plant Asphalt Oxidizer (1-105), since it was constructed prior to November 18, 1980 and has not been reconstructed or modified.

For purposes of 40 CFR 63 Subpart G and CC, a list shall be maintained of all affected process vents, as defined in 40 CFR 63.111 and 40 CFR 63.641, and their associated control devices. Certain relief valves are not process vents because (1) their operation is critical to the safe operation of the process units and (2) their emissions occur only intermittently. The process vents are exempt from any of the emission standards of 40 CFR 63 Subpart G and CC because they are vented to one of the control options of these subparts. Further, the emissions from process vents are not considered fuel gas and therefore are not subject to the provisions of 40 CFR 60 Subpart J. The control devices shall be maintained and operated in accordance with the provisions of 40 CFR 63 Subpart G and CC as detailed in the conditions of this permit. Upset and blanket gases are routed to the flare system, which is compliant with the 40 CFR 63 Subpart CC provisions.

40 CFR 63 Subpart CC provides two LDAR compliance options for affected process units: 40 CFR 60 Subpart VV and 40 CFR 63 Subpart H. The Process Units Table of this permit specifies which LDAR compliance option has been chosen for each process unit subject to 40 CFR 63 Subpart CC.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

NON-APPLICABLE REGULATIONS (Continued):

Except as noted in the Process Units Table, compliance with the standards and requirements for equipment leaks of VOC in either 40 CFR 63 Subpart H or 40 CFR 63 Subpart CC is deemed as demonstrating compliance with the standards and requirements in 40 CFR 60 Subpart VV, 40 CFR 60 Subpart GGG, and 401 KAR 61:137. Equipment not subject to either 40 CFR 63 Subpart H or 40 CFR 63 Subpart CC will be evaluated on a case-by-case basis for voluntary inclusion in either the Subpart H or Subpart CC monitoring program. Pursuant to the conditions below, records will be maintained of the equipment included in each of the different monitoring programs.

As specified in 40 CFR 63.640(p), equipment leaks that are also subject to the provisions of 40 CFR parts 60 and 61 are required to comply only with the provisions specified in 40 CFR 63 Subpart CC.

As specified in 40 CFR 63.640(g)(7), process units and emission points subject to 40 CFR 63 Subparts F, G, and H are not subject to 40 CFR 63 Subpart CC.

As specified in 40 CFR 63.160(b), equipment leaks that are also subject to the provisions of 40 CFR parts 60 and 61 (including 40 CFR 60 Subpart VV and 40 CFR 61 Subparts J and V) are required to comply only with the provisions specified in 40 CFR 63 Subpart H.

Compliance with the standards and requirements of 40 CFR 60.482-10, as referenced by 40 CFR 63.648(a), and 40 CFR 63.644, 63.645, and 63.654, for the closed-vent and flare system is accepted as demonstrating compliance with the standards and requirements in 40 CFR 63.114, 63.118, 63.152, 63.172, and 63.181(g).

All petroleum refinery valves in process units listed in the Process Units Table as subject to the 40 CFR Part 60 Subpart VV compliance option for 40 CFR 63 Subpart CC (as referenced by 40 CFR 63.648(a)), and which are determined to be in VOC service, are presumed to be in organic hazardous air pollutant (OHAP) service and therefore subject to 40 CFR Part 60 Subpart VV (40 CFR 63.648(a)(1)). For pumps, compressors, and sample stations the permittee shall individually determine or designate which are in OHAP service. For purposes of 40 CFR 63.648(a)(2), calculation of leaking components is performed on a process unit basis. Pursuant to 40 CFR 60.482-1(d), for equipment not in organic HAP service, as defined in 40 CFR 63.161, equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 60.482-10 if it is identified as required in 40 CFR 60.486(e).

No compressors are in HON services. No surge control vessels or bottoms receivers associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table are subjected to the provisions of 40 CFR 63.170. Surge control vessels and bottoms receivers are routed back to the process unit. Upset and blanket gases are routed to the flare system, which is compliant with the 40 CFR 63 Subpart CC provisions.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

NON-APPLICABLE REGULATIONS (Continued):

Pursuant to 40 CFR 63.112(e)(2), the owner or operator that complies with 40 CFR 63.112(e) is not required to calculate the annual emission rate specified in 40 CFR 63.112(a).

Pursuant to 40 CFR 63.642(k)(2), the owner or operator that complies with 40 CFR 63.642 (k) is not required to calculate the annual emission rate specified in 40 CFR 63.642(g).

Pursuant to 40 CFR 63.148(k), the closed-vent system is not subject to the provisions of 40 CFR 63.148 because it is subject to the provisions of 40 CFR 63.172.

Pursuant to 40 CFR 60.486(k), the provisions of 40 CFR 60.7(b) and (d) do not apply to affected facilities subject to 40 CFR 60 Subpart VV.

Pursuant to 40 CFR 63.162(d), for process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, equipment that is in vacuum service is excluded from the requirements of 40 CFR 63 Subpart H.

Pursuant to 40 CFR 63.162(e), for process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, any pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, surge control vessel, bottoms receiver, instrumentation system, control device or system that is intended to operate in organic hazardous air pollutant service, as defined in 40 CFR 63.161, for less than 300 hours during the calendar year is exempt from the provisions of 40 CFR Part 63.163 through 63.174 and 63.178, if it is identified as required in 40 CFR 63.181(j).

Pursuant to 40 CFR 63.640(d)(3), for process units listed as subject to 40 CFR 63 Subpart CC for refinery leaks in the Process Units Table, any pump, compressor, pressure relief device, sampling connection system, open-ended valve or line, valve, or instrumentation system that is intended to operate in organic hazardous air pollutant service, as defined in 40 CFR 63.641, for less than 300 hours during the calendar year is exempt from the provisions of 40 CFR Part 63.648.

Pursuant to 40 CFR 63.648(f), for process units subject to 40 CFR 63 Subpart CC for refinery leaks in the Process Units Table, reciprocating pumps in light liquid service are exempt from 40 CFR 60.482 if recasting the distance piece or reciprocating pump replacement is required.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

NON-APPLICABLE REGULATIONS (Continued):

Pursuant to 40 CFR 63.648(g), for process units subject to 40 CFR 63 Subpart CC for refinery leaks as listed in the Process Units Table, compressors in hydrogen service are exempt from the requirements of 40 CFR 63.648(a) and (c) if the owner or operator demonstrates that the compressors are in hydrogen service according to the methods specified in 40 CFR 63.648(g).

Pursuant to 40 CFR 63.648(i), for process units listed as subject to 40 CFR 63 Subpart CC for refinery leaks in the Process Units Table, reciprocating compressors are exempt from seal requirements if recasting the distance piece or compressor replacement is required.

Pursuant to 401 KAR 52:020, Section 17(1), a project limited to the installation of fugitive emission components (pumps, valves, flanges, compressors, etc.) shall qualify as an off-permit change if the project is not a modification under Title I of the Clean Air Act, is not subject to the Acid Rain Program, does not violate any existing terms and conditions of this permit, and meets all applicable requirements. Catalyst change outs with catalyst having properties that fall within the normal range of properties for the given catalyst are considered to be normal operating procedure, and shall qualify as off permit change. If the change qualifies as an insignificant activity as defined in 401 KAR 50:020 Section 6, then the advance notifications described in Section 17(2)(a) – (d) shall not be required.

The permittee has entered into a consent decree with the US EPA dated August 6, 2001 (*United States of America, et al, v. Marathon Ashland Petroleum, LLC*). Those provisions of the consent decree that are on-going air compliance obligations have been incorporated into this document. For the sake of clarity, completed and discrete obligations have not been included in this draft permit. The affected process units are the FCCU, the SRUs and the leak detection and repair and Benzene Waste NESHAP programs. Where the consent decree obligations are more stringent than either state or federal regulatory obligations, the consent decree obligation demonstrates compliance with the state or federal regulatory obligation.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

The requirements for the process units have been divided into the following groups of requirements with the applicable regulations for each specific emission point shown on the PROCESS UNITS TABLE at the beginning of the PROCESS UNITS section of the permit.

401 KAR 59:046, 401 KAR 61:135, AND 401 KAR 63:010

40 CFR PART 60 SUBPART VV LDAR OPTION

40 CFR PART 63 SUBPART H LDAR OPTION

40 CFR 63 SUBPART UUU FOR CATALYTIC REFORMING UNITS

Emission Point: FUG 018, HYDROGEN FLUORIDE ALKYLATION UNIT (HF ALKY)

Emission Point: FUG043, FLUIDIZED CATALYTIC CRACKING UNIT (FCCU)

Emission Points: FUG 024, 025, 030, 031- SULFUR RECOVERY PLANT (SRU#1 AND SRU #2)

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS - 401 KAR 59:046, 401 KAR 61:135, AND 401 KAR 63:010:

1. **Operating Limitations:**
   a. Spent catalyst shall not be regenerated at the units identified as "No Catalyst Regen" in the Process Units Table [State only requirement from O-93-016 revision 1].

   b. Pursuant to 401 KAR 63:010, Section 3(1), when any catalyst is removed from a reactor vessel the permittee shall take reasonable precautions to prevent particulate matter from becoming airborne.

   Compliance Demonstration Method:
   For compliance with operating limitations 1.a and b, refer to Section F. 7-9.

   c. For process units subject to 401 KAR 59:046 or 61:135, as identified in the Process Units Table, the following provisions apply pursuant to 401 KAR 59:046 or 61:135 Section 3:
      (1) All gaseous hydrocarbons emitted from condensers, hot wells, vacuum pumps, and accumulators shall be collected and vented to a firebox, flare or other control device of equivalent efficiency as determined by the cabinet.
      (2) The gaseous hydrocarbons purged from a process unit or vessel shall be vented to a firebox, flare, or other control device of equivalent efficiency as determined by the cabinet until the pressure in the process unit is less than five (5) psig.

   Compliance Demonstration Method:
   Gaseous hydrocarbons purged from a process unit or vessel shall be vented to a flare until the vessel pressure is equivalent to the flare header pressure. The flare header pressure has been determined to be less than 5 psig. A record of each process unit turnaround shall be maintained as specified by 401 KAR 59:046 and 61:135 Sections (4).

2. **Emission Limitations:**
   Pursuant to 401 KAR 63:010, Section 3(2), when any catalyst is removed from a reactor vessel, the permittee shall not cause or permit the discharge of visible fugitive dust emissions beyond the lot line of the property.

   Compliance Demonstration Method:
   For compliance with 401 KAR 63:010, the permittee shall use a continuous video monitoring system or weekly visual observation as required by Section F.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS - 401 KAR 59:046, 401 KAR 61:135, AND 401 KAR 63:010 (Continued):

3. **Testing Requirements:**
   None

4. **Monitoring Requirements:**
   None

5. **Recordkeeping Requirements:**
   For process units subject to 401 KAR 59:046 or 61:135, as identified in the Process Units Table, the owner or operator of each vacuum producing systems and process unit turnarounds associated with a petroleum refinery, shall:
   a. Keep a record of each process unit turnaround;
   b. Record the approximate hydrocarbon concentration when the hydrocarbons were first discharged to the atmosphere;
   c. Record the approximate total quantity of hydrocarbon emitted to the atmosphere; and
   d. The owner or operator shall retain these records for at least two (2) years and submit them to the cabinet upon request.

6. **Reporting Requirements:**
   None

7. **Control Equipment Operating Conditions:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 60 SUBPART VV LDAR OPTION

1. **Operating Limitations:**
   a. Pursuant to 40 CFR 60.482-2(c), 60.482-3(g), 60.482-7(d), and 60.482-8(c), as referenced by 40 CFR 63.648(a) for equipment associated with process units listed as subject to the Subpart VV control option of 40 CFR 63 Subpart CC in the Process Units Table, and equipment not in organic HAP service (as defined in 40 CFR 63.161) associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, when a leak is detected:
      (1) It shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9, and
      (2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
      (3) Delay of repair of equipment for which leaks have been detected will be allowed if the repair is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. [40 CFR 60.482-9(a)]
      (4) Delay of repair of equipment will be allowed for equipment which is isolated from the process and which does not remain in VOC service. [40 CFR 60.482-9(b)]
      (5) Delay of repair for valves will be allowed if:
         (a) The owner or operator demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and
      (6) When repair procedures are affected, the purged material is collected and destroyed or recovered in a control device complying with 40 CFR 60.482-10. [40 CFR 60.482-9(c)].

   b. Delay of repair for pumps will be allowed if:
      (1) Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and
      (2) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.
      (3) Delay of repair beyond a process unit shutdown will be allowed for a valve, if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown. [40 CFR 60.482-9(d)]

   c. Pursuant to 40 CFR 60.482-10(g), as referenced by 40 CFR 63.648(a) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 60 SUBPART VV LDAR OPTION (Continued)

1. Operating Limitations (Continued):

40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, for each closed-vent system, when a leak is detected:

(1) It shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected.
(2) A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

In accordance with 40 CFR 60.482-10(h), delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

d. Pursuant to 40 CFR 60.486(b), as referenced by 40 CFR 63.648(a) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, when each leak is detected, the following requirements apply:
(1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.
(2) The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7(c) and no leak has been detected during those 2 months.
(3) The identification on equipment except on a valve may be removed after it has been repaired.

e. Pursuant to 40 CFR 60.482-3(a), as referenced by 40 CFR 63.648(a) for compressors associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and compressors not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, each compressor shall be equipped with a seal system that includes a barrier fluid system and that prevents leakage of VOC to the atmosphere, except as provided in 40 60.482-3(h) and (i).

f. Pursuant to 40 CFR 60.482-3(b), as referenced by 40 CFR 63.648(a) for compressors associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and compressors not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, each compressor seal system shall be:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 60 SUBPART VV LDAR OPTION (Continued)

1. <u>Operating Limitations (Continued)</u>:

(1) Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or
(2) Equipped with a barrier fluid system that is connected by a closed vent system to a control device that complies with the requirements of 40 CFR 60.482-10; or
(3) Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere.

g. Pursuant to 40 CFR 60.482-3(c), as referenced by 40 CFR 63.648(a) for compressors associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and compressors not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, for each compressor, the barrier fluid system shall be in heavy liquid service or shall not be in VOC service.

h. Pursuant to 40 CFR 60.482-3(d), as referenced by 40 CFR 63.648(a) for compressors associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and compressors not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, for each compressor, the barrier fluid system shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both.

i. Pursuant to 40 CFR 60.482-5, as referenced by 40 CFR 63.648(a) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table:
(1) Each sampling connection system shall be equipped with a closed-purged, closed-loop, or closed-vent system.
(2) Each closed-purge, closed-loop, or closed-vent system as required in 40 CFR 60.482-5(a) shall comply with the following requirements:

(i) Return the purged process fluid directly to the process line; or
(ii) Collect and recycle the purged process fluid to a process; or
(ii) Be designed and operated to capture and transport all the purged process fluid to a control device that complies with the requirements of 40 CFR 60.482-10.
(3) In situ sampling systems and sampling systems without purges are exempt from the requirements of 40 CFR 60.482-5 (a) and (b).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 60 SUBPART VV LDAR OPTION (Continued)

1. **Operating Limitations (Continued):**
   j. Pursuant to 40 CFR 60.482-6, as referenced by 40 CFR 63.648(a) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table:
   (1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve.
   (2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line.
   (3) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.
   (4) When a double block-and-bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (1) at all other times.

2. **Emission Limitations:**
   None

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**

   a. Pursuant to 40 CFR 60.482-2(a), as referenced by 40 CFR 63.648(a) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, except for pumps in light liquid service meeting the exemptions in 40 CFR 60.482-2(d), (e), or (f), all pumps in light liquid service shall be:
   (1) Monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b). In accordance with 40 CFR 60.482-2(b)(1), if an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
   (2) Checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. In accordance with 40 CFR 60.482-2(b)(2), if there are indications of liquids dripping from the pump seal, a leak is detected.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 60 SUBPART VV LDAR OPTION (Continued)

4. <u>Specific Monitoring Requirements (Continued):</u>

b. Pursuant to 40 CFR 60.482-3(e), as referenced by 40 CFR 63.648(a) for compressors associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and compressors not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, each sensor, not equipped with an audible alarm, monitoring a compressor shall be checked daily. In accordance with 40 CFR 60.482-3(f), if the sensor indicates failure of the seal system, the barrier system, or both, a leak is detected.

c. Pursuant to 40 CFR 60.482-4, as referenced by 40 CFR 63.648(a) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table:
   (1) Except during pressure releases, each pressure relief device in gas/vapor service associated with a process unit listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined by the methods specified in 40 CFR 60.485(c).
   (2) After each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as soon as practicable, but no later than 5 calendar days after the pressure release, except as provided in 40 CFR 60.482-9.
   (3) No later than 5 calendar days after the pressure release, the pressure relief device shall be monitored to confirm the conditions of no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, by the methods specified in 40 CFR 60.485(c).
   (4) Any pressure relief device that is equipped with a closed vent system capable of capturing and transporting leakage through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of this condition.

d. Pursuant to 40 CFR 60.482-7(a), (b) and (c), as referenced by 40 CFR 63.648(a) for equipment associated with process units subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table:
   (1) Each valve in gas/vapor or light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with the following, except as provided in paragraphs 40 CFR 60.482-7(f), (g), and (h).
   (2) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
   (3) Any valve for which a leak is not detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 60 SUBPART VV LDAR OPTION (Continued)

4. <u>Specific Monitoring Requirements (Continued):</u>

(4) If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

e. Pursuant to 40 CFR 60.482-8(a), as referenced by 40 CFR 63.648(a) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors shall be monitored within 5 days by the method specified in 40 CFR 60.485(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method. In accordance with 40 CFR 60.482-8(b), if an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

f. Pursuant to 40 CFR 60.482-10(e), as referenced by 40 CFR 63.648(a) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, sampling systems that vent to carbon canisters shall be monitored monthly to check for breakthrough.

g. Pursuant to 40 CFR 60.482-10(f)(1), as referenced by 40 CFR 63.648(a), for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, except as provided in paragraphs 40 CFR 60.482-10(i) through (k), each closed-vent system shall be inspected according to the procedures and schedule specified below:

(1) Conduct an initial inspection according to the procedures in 40 CFR 60.485(b); and

(2) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(3) In accordance with 40 CFR 60.482-10(g), if an instrument reading of 500 ppm above background or greater is measured, a leak is detected.

5. <u>Specific Recordkeeping Requirements:</u>

a. Pursuant to 40 CFR 60.482-10(l), as referenced by 40 CFR 63.648(d)(1) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, for each closed-vent system, the following information shall be recorded and shall be kept for 5 years in a readily accessible location:

(1) Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment. [40 CFR 60.482-10(l)(1)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 60 SUBPART VV LDAR OPTION (Continued)

5. <u>Specific Recordkeeping Requirements (Continued):</u>

(2) Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment. [40 CFR 60.482-10(l)(2)]

(3) For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c). [40 CFR 60.482(l)(3)]

(4) For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40CFR 60.482(l)(4)]

(5) For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected. [40 CFR 60.482(l)(5)]

b. Pursuant to 40 CFR 60.486(c), as referenced by 40 CFR 63.654(d)(1) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table, equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, when each leak is detected, the following information shall be recorded in a log and shall be kept for 5 years in a readily accessible location:

(1) The instrument and operator identification numbers and the equipment identification number.

(2) The date the leak was detected and the dates of each attempt to repair the leak.

(3) Repair methods applied in each attempt to repair the leak.

(4) "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.

(5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(6) The name of the person whose decision it was that repair could not be affected without a process shutdown.

(7) The expected date of successful repair of the leak if a leak is not repaired within 15 days.

(8) Dates of process unit shutdown that occur while the equipment is unrepaired.

(9) The date of successful repair of the leak.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 60 SUBPART VV LDAR OPTION (Continued)

5. <u>Specific Recordkeeping Requirements (Continued):</u>

c. Pursuant to 40 CFR 60.486(d), as referenced by 40 CFR 63.654(d)(1) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the following information pertaining to the design requirements for closed-vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and shall be kept for 5 years in a readily accessible location:
   (1) Detailed schematics, design specifications, and piping and instrumentation diagrams.
   (2) The dates and descriptions of any changes in the design specifications.
   (3) A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e) to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.
   (4) Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame.
   (5) Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5.

d. Pursuant to 40 CFR 60.486(e), as referenced by 40 CFR 63.654(d)(1) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table, and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept for 5 years in a readily accessible location:
   (1) A list of identification numbers for equipment subject to the requirements of this subpart.
   (2) A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f).
   (3) The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 60.482-3(i), or 60.482-7(f) shall be signed by the owner or operator.
   (4) A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4.
   (5) The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, and 60.482-7(f).
   (6) The background level measured during each compliance test.
   (7) The maximum instrument reading measured at the equipment during each compliance test.
   (8) A list of identification numbers for equipment in vacuum service.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 60 SUBPART VV LDAR OPTION (Continued)

5. <u>Specific Recordkeeping Requirements (Continued):</u>

e. Pursuant to 40 CFR 60.486(f), as referenced by 40 CFR 63.654(d)(1) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7 (g) and (h) shall be recorded in a log that is kept for 5 years in a readily accessible location:
   (1) A list of identification numbers for valves that are designated as unsafe-to-monitor, an explanation for each valve stating why the valve is unsafe-to-monitor, and the plan for monitoring each valve.
   (2) 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 value.

f. Pursuant to 40 CFR 60.486(h), as referenced by 40 CFR 63.654(d)(1) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the following information shall be recorded in a log that is kept for 5 years in a readily accessible location:
   (1) Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and
   (2) Any changes to this criterion and the reasons for the changes.

g. Pursuant to 40 CFR 60.486(j), as referenced by 40 CFR 63.654(d)(1) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept for 5 years in a readily accessible location.

h. Pursuant to 40 CFR 63.654(d)(3), for the process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table, an owner or operator who determines that a compressor qualifies for the hydrogen service exemption in 40 CFR 63.648(g) shall keep a record of the demonstration required by 40 CFR 63.648(g) for 5 years.

i. Pursuant to 40 CFR 63.654(d)(5), for the process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table, an owner or operator must identify, either by list or location (area or refining process unit), equipment in organic HAP service less than 300 hours per year as defined in 40 CFR 63.641.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 60 SUBPART VV LDAR OPTION (Continued)

5. <u>Specific Recordkeeping Requirements (Continued)</u>:

j. Pursuant to 40 CFR 63.654(d)(6), for the process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table, an owner or operator must keep a list of reciprocating pumps and compressors determined to be exempt from seal requirements as per 40 CFR 63.648(f) and (i).

6. <u>Specific Reporting Requirements</u>:

a. Pursuant to 40 CFR 60.487(c), as referenced by 40 CFR 63.654(d)(1) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, all semiannual reports to the Administrator shall include the following information:
   (1) Process unit identification.
   (2) For each month during the semiannual reporting period:
      (i) Number of valves for which leaks were detected,
      (ii) Number of valves for which leaks were not repaired within 15 calendar days after the leak was detected,
      (iii) Number of pumps for which leaks were detected,
      (iv) Number of pumps for which leaks were not repaired within 15 calendar days after the leak was detected,
      (v) Number of compressors for which leaks were detected,
      (vi) Number of compressors for which leaks were not repaired within 15 calendar days after the leak was detected, and
      (vii) The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.
      (viii) Dates of process unit shutdowns, which occurred within the semiannual reporting period.
      (ix) Revisions to items reported according to the initial semiannual report if changes have occurred since the initial report or subsequent revisions to the initial report.

b. Pursuant to 40 CFR 60.487(e), as referenced by 40 CFR 63.654(d)(1) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, an owner or operator shall report the results of all performance tests in accordance with 40 CFR 60.8. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to this condition except that an owner or operator must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 60 SUBPART VV LDAR OPTION (Continued)

7. <u>Specific Control Equipment Operating Conditions</u>:
None

8. <u>Alternate Operating Scenarios</u>:

a. Pursuant to 40 CFR 60.483-1, as referenced by 40 CFR 63.648(a) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, an owner or operator may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent. The following requirements shall be met if an owner or operator wishes to comply with an allowable percentage of valves leaking:
   (1) An owner or operator must notify the Administrator that the owner or operator has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in 40 CFR 60.487(b).
   (2) A performance test as specified in paragraph iv shall be conducted initially upon designation, annually, and at other times requested by the Administrator.
   (3) If a valve leak is detected, it shall be repaired in accordance with 40 CFR 60.482-7(d) and (e) (40 CFR Part 63 Subpart CC LDAR condition I.1.A, above).
   (4) Performance tests shall be conducted in the following manner:
      (i) All valves in gas/vapor and light liquid service within the affected facility shall be monitored within 1 week by the methods specified in 40 CFR 60.485(b).
      (ii) If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
      (iii) The leak percentage shall be determined by dividing the number of valves for which leaks are detected by the number of valves in gas/vapor and light liquid service within the affected facility.
   (5) Owners and operators who elect to comply with this alternative standard shall not have an affected facility with a leak percentage greater than 2.0 percent.

b. Pursuant to 40 CFR 60.483-2, as referenced by 40 CFR 63.648(a) for equipment associated with process units listed as subject to 40 CFR 63 Subpart CC for equipment leaks in the Process Units Table and equipment not in organic HAP service, as defined in 40 CFR 63.161, associated with process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, an owner or operator may elect to comply with one of the alternative work practices specified in paragraphs (ii) and (iii) below. An owner or operator must notify the Administrator before implementing one of the alternative work practices, as specified in 40 CFR 60.487(b).
   (1) An owner or operator shall comply initially with the requirements for valves in gas/vapor service and valves in light liquid service, as described in 40 CFR 60.482-7.
   (2) After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 60 SUBPART VV LDAR OPTION (Continued)

8. <u>Alternate Operating Scenarios (Continued)</u>:

(3) After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, an owner or operator may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service.

(4) If the percent of valves leaking is greater than 2.0, the owner or operator shall comply with the requirements as described in 40 CFR 60.482-7 but can again elect to use the alternative standards in 40 CFR 60.483-2.

(5) The percent of valves leaking shall be determined by dividing the sum of valves found leaking during current monitoring and valves for which repair has been delayed by the total number of valves subject to the requirements of 40 CFR 60.483-2.

(6) An owner or operator must keep a record of the percent of valves found leaking during each leak detection period.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION

1. **Operating Limitations:**
   a. Pursuant to 40 CFR 63.162(c), each piece of equipment in organic hazardous air pollutant (HAP) service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table shall be identified such that it can be distinguished readily from equipment that is not subject to this subpart. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, or by designation of process unit boundaries by some form of weatherproof identification.

   b. Pursuant to 40 CFR 63.162(f), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, when each leak is detected as specified in 40 CFR 63.163, 63.168, 63.169, 63.173 and 63.174, the following requirements apply:
      (1) A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.
      (2) The identification on a valve may be removed after it has been monitored as specified in 40 CFR 63.168(f)(3) and 63.175(e)(7)(i)(D), and no leak has been detected during the follow-up monitoring. If the owner or operator elects to comply using the provisions of 40 CFR 63.174(c)(1)(i) of this subpart, the identification on a connector may be removed after it is monitored as specified in 40 CFR 63.174(c)(1)(i) and no leak is detected during that monitoring.
      (3) The identification which has been placed on equipment determined to have a leak, except for a valve or for a connector that is subject to the provisions of 40 CFR 63.174(c)(1)(i), may be removed after it is repaired.

   c. Pursuant to 40 CFR 63.163(c), (e)(6)(iii) and (e)(6)(iv), 40 CFR 63.168(f) and (g), 40 CFR 63.169(c) and (d), 40 CFR 63.173(c), (d)(6)(iii) and (d)(6)(iv), and 40 CFR 63.174(d) except as provided in 40 CFR 63.174(g), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, when a leak is detected:
      (1) It shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided below or in 40 CFR 63.171.
      (2) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. First attempts at repair include, but are not limited to, the following practices where practicable:
         (i) Tightening of packing gland nuts,
         (ii) Ensuring that the seal flush is operating at design pressure and temperature,
         (iii)Tightening of bonnet bolts,

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION (Continued)

1. <u>Operating Limitations (Continued)</u>:

(iv) Replacement of bonnet bolts, and
(v) Injection of lubricant into lubricated packing.

(3) For pumps to which a 1,000 parts per million leak definition applies, repair is not required unless an instrument reading of 2,000 parts per million or greater is detected.

(4) For valves in gas/vapor service or light liquid service, when a leak has been repaired, the valve shall be monitored at least once within the first 3 months after its repair.

(i) The monitoring shall be conducted as specified in 40 CFR 63.180(b) and (c), as appropriate, to determine whether the valve has resumed leaking.

(ii) Periodic monitoring required by 40 CFR 63.168(b) through (d) may be used to satisfy the requirements of 40 CFR 63.168(f)(3), if the timing of the monitoring period coincides with the time specified in 40 CFR 63.168(f)(3). Alternatively, other monitoring may be performed to satisfy the requirements of 40 CFR 63.168(f)(3), regardless of whether the timing of the monitoring period for periodic monitoring coincides with the time specified in 40 CFR 63.168(f)(3).

(iii) If a leak is detected by monitoring that is conducted pursuant to 40 CFR 63.168(f)(3), the owner or operator shall follow the provisions below, to determine whether that valve must be counted as a leaking valve for purposes of 40 CFR 63.168(e).

a. If the owner or operator elected to use periodic monitoring required by 40 CFR 63.168(b) through (d) to satisfy the requirements of 40 CFR 63.168(f)(3), then the valve shall be counted as a leaking valve.

b. If the owner or operator elected to use other monitoring, prior to the periodic monitoring required by 40 CFR 63.168(b) through (d), to satisfy the requirements of 40 CFR 63.168(f)(3), then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking.

(5) For equipment identified in 40 CFR 63.169(a) that is not monitored by the method specified in 40 CFR 63.180(b), repaired shall mean that the visual, audible, olfactory, or other indications of a leak to the atmosphere have been eliminated; that no bubbles are observed at potential leak sites during a leak check using soap solution; or that the system will hold a test pressure.

d. In accordance with 40 CFR 63.171, the following applies when a leak is detected:

(1) Delay of repair of equipment for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown. Repair of this equipment shall occur by the end of the next process unit shutdown.

(2) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in organic HAP service.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION (Continued)

1. <u>Operating Limitations (Continued)</u>:

(3) Delay of repair for valves, connectors, and agitators is also allowed if:
  (i) The owner or operator determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and
  (ii) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 40 CFR 63.172.

(4) Delay of repair for pumps is also allowed if:
  (i) Repair requires replacing the existing seal design with a new system that the owner or operator has determined under the provisions of 40 CFR 63.176(d) will provide better performance or:
    a. A dual mechanical seal system that meets the requirements of 40 CFR 63.163(e),
    b. A pump that meets the requirements of 40 CFR 63.163(f), or
    c. A closed-vent system and control device that meets the requirements of 40 CFR 63.163(g); and
  (ii) Repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

(5) Delay of repair beyond a process unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit shutdown will not be allowed unless the third process unit shutdown occurs sooner than 6 months after the first process unit shutdown.

e. Pursuant to 40 CFR 63.166, for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the following applies:

(2) Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system. Gases displaced during filling of the sample container are not required to be collected or captured.

(3) Each closed-purge, closed-loop, or closed-vent system as required by this condition shall:
  (i) Return the purged process fluid directly to the process line; or
  (ii) Collect and recycle the purged process fluid to a process; or
  (iii) Be designed and operated to capture and transport the purged process fluid to a control device that complies with the requirements of 40 CFR 63.172; or

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION (Continued)

1. <u>Operating Limitations (Continued)</u>:

(iv) Collect, store, and transport the purged process fluid to a system or facility identified as follows:

a. A waste management unit as defined in 40 CFR 63.111, if the waste management unit is subject to, and operated in compliance with the provisions of 40 CFR 63 Subpart G applicable to group 1 wastewater streams. If the purged process fluid does not contain any organic HAP listed in Table 9 of 40 CFR 63 Subpart G, the waste management unit need not be subject to, and operated in compliance with the requirements of 40 CFR 63 Subpart G applicable to group 1 wastewater streams provided the facility has an NPDES permit or sends the wastewater to an NPDES permitted facility.

b. A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; or

c. A facility permitted, licensed, or registered by a State to manage municipal or industrial solid waste, if the process fluids are not hazardous waste as defined in 40 CFR part 261.

(4) In-situ sampling systems and sampling systems without purges are exempt from the requirements of this condition

f. Pursuant to 40 CFR 63.167, for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the following applies:

(1) Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided below.

(2) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair.

(3) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.

(4) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with this condition at all other times.

(5) Open-ended valves or lines in an emergency shutdown system, which are designed to open automatically in the event of a process upset, are exempt from the requirements of this condition.

(6) Open-ended valves or lines containing materials which would auto-catalytically polymerize or, would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified above, are exempt from the requirements of this condition.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION (Continued)

1. **Operating Limitations (Continued):**
   g. Pursuant to 40 CFR 63.112(e)(2), the owner or operator is not required to calculate the annual emission rate specified in 40 CFR 63.112(a).

   h. Pursuant to 40 CFR 63.148(k), the closed-vent system is not subject to the provisions of 40 CFR 63.148 because it is subject to the provisions of 40 CFR 63.172

   i. Pursuant to 40 CFR 63.162(d), for process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, equipment that is in vacuum service is excluded from the requirements of 40 CFR 63 Subpart H.

   j. Pursuant to 40 CFR 63.162(e), for process units listed as subject to 40 CFR 63 Subpart H in the Process Units Table, any pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, surge control vessel, bottoms receiver, instrumentation system, control device or system that is intended to operate in organic hazardous air pollutant service, as defined in 40 CFR 63.161, for less than 300 hours during the calendar year is exempt from the provisions of 40 CFR Part 63.163 through 63.174 and 63.178, if it is identified as required in 40 CFR 63.181(j).

2. **Emission Limitations:**
   None

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   a. Pursuant to 40 CFR 63.163(b), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the owner or operator shall:
      (1) Monitor each pump monthly to detect leaks by the method specified in 40 CFR 63.180(b), except as provided in 40 CFR 63.163 (e) through (h) and (j). In accordance with 40 CFR 63.163(b)(2)(iii)(C), the instrument reading, as determined by the method as specified in 40 CFR 63.180(b), that defines a leak is 1,000 parts per million or greater.
      (2) Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, a leak is detected.
   b. Pursuant to 40 CFR 63.163(d), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the following applies, except as provided in 40 CFR 63.163(i):

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION (Continued)

4. <u>Specific Monitoring Requirements (Continued):</u>

(1) The owner or operator shall calculate percent leaking pumps on a process unit basis.

(2) If, calculated on a 6-month rolling average, the greater of either 10 percent of the pumps in a process unit or three pumps in a process unit leak, the owner or operator shall implement a quality improvement program for pumps that complies with the requirements of 40 CFR 63.176.

(3) The number of pumps at a process unit shall be the sum of all the pumps in organic HAP service, except that pumps found leaking in a continuous process unit within 1 month after start-up of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only.

(4) Percent leaking pumps shall be determined by the following equation:

$$\%P(L) = ((P(L) - P(S))/(P(T) - P(S))) \times 100$$

where:

%P(L) = Percent leaking pumps

P(L) = Number of pumps found leaking as determined through monthly monitoring as required in condition 4.A of this section.

P(T) = Total pumps in organic HAP service, including those meeting the criteria in 40 CFR 63.163(e) and (f).

P(S) = Number of pumps leaking within 1 month of start-up during the current monitoring period.

c. Pursuant to 40 CFR 63.163(e), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 63.163(a) through (d), provided the following requirements are met:

(1) Each dual mechanical seal system is:

(i) Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or

(ii) Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of 40 CFR 63.172; or

(iii) Equipped with a closed-loop system that purges the barrier fluid into a process stream.

(2) The barrier fluid is not in light liquid service

(3) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.

(4) Each pump is checked by visual inspection each calendar week for indications of liquids dripping from the pump seal.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION (Continued)

4. <u>Specific Monitoring Requirements (Continued):</u>

(i) If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the pump shall be monitored as specified in 40 CFR 63.180(b) to determine if there is a leak of organic HAP in the barrier fluid.

(ii) If an instrument reading of 1,000 parts per million or greater is measured, a leak is detected.

(5) Each sensor as described in 40 CFR 63.163(e)(3) is observed daily or is equipped with an alarm unless the pump is located within the boundary of an unmanned plant site.

(6) The owner or operator determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both.

(7) If indications of liquids dripping from the pump seal exceed the criteria established in 40 CFR 63.163(e)(6)(i), or if, based on the criteria established in 40 CFR 63.163(e)(6)(i), the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.

d. Pursuant to 40 CFR 63.165, for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the following applies:

(1) Except during pressure releases, each pressure relief device in gas/vapor service shall be operated with an instrument reading of less than 500 parts per million above background except as provided below, as measured by the method specified in 40 CFR 63.180(c).

(2) After each pressure release, the pressure relief device shall be returned to a condition indicated by an instrument reading of less than 500 parts per million above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 63.171.

(3) No later than 5 calendar days after the pressure release and being returned to organic HAP service, the pressure relief device shall be monitored to confirm the condition indicated by an instrument reading of less than 500 parts per million above background, as measured by the method specified in 40 CFR 63.180(c).

(4) Any pressure relief device that is routed to a process or fuel gas system or equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to a control device as described in 40 CFR 63.172 is exempt from the requirements of this condition.

(5) Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements this condition, provided the owner or operator complies with the following requirement:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION (Continued)

4. <u>Specific Monitoring Requirements (Continued):</u>

After each pressure release, a rupture disk shall be installed upstream of the pressure relief device as soon as practicable, but no later than 5 calendar days after each pressure release, except as provided in 40 CFR 63.171.

e. Pursuant to 40 CFR 63.168(d), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the owner or operator shall monitor valves, except as provided in 40 CFR 63.168(h) and (i), as follows.
   (1) In accordance with 40 CFR 63.168(b):
      (i) The valves shall be monitored to detect leaks by the method specified in 40 CFR 63.180(b).
      (ii) The instrument reading that defines a leak is 500 parts per million or greater.
   (2) Monitor valves for leaks at the intervals specified below [40 CFR 63.168(d)]:
      (i) At process units with 2 percent or greater leaking valves, calculated according to 40 CFR 63.168(e), the owner or operator shall monitor each valve once per month.
      (ii) At process units with less than 2 percent leaking valves, the owner or operator shall monitor each valve once each quarter, except as provided in 40 CFR 63.168(d)(3) and (d)(4).
      (iii) At process units with less than 1 percent leaking valves, the owner or operator may elect to monitor each valve once every 2 quarters.
      (iv) At process units with less than 0.5 percent leaking valves, the owner or operator may elect to monitor each valve once every 4 quarters.

f. Pursuant to 40 CFR 63.169(a) and (b), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the following applies:
   (1) Pumps, valves, connectors, and agitators in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and instrumentation systems shall be monitored within 5 calendar days by the method specified in 40 CFR 63.180(b) if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method. If such a potential leak is repaired as required in 40 CFR 63.169(c) and (d), it is not necessary to monitor the system for leaks by the method specified in 40 CFR 63.180(b).
   (2) In accordance with 40 CFR 63.169(b), if an instrument reading of 10,000 parts per million or greater for agitators, 5,000 parts per million or greater for pumps handling polymerizing monomers, 2,000 parts per million for pumps, or 500 parts per million or greater for valves, connectors, instrumentation systems, and pressure relief devices is measured, a leak is detected.

g. Pursuant to 40 CFR 63.173(a), (b) and (d), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the following applies:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION (Continued)

4. <u>Specific Monitoring Requirements (Continued):</u>

(1) Each agitator shall be monitored monthly to detect leaks by the methods specified in 40 CFR 63.180(b).
(2) If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected.
(3) Each agitator shall be checked by visual inspection each calendar week for indications of liquids dripping from the agitator.
(4) If there are indications of liquids dripping from the agitator, a leak is detected.
(5) Each agitator equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of the monthly monitoring in 40 CFR 63.173(a), provided the requirements specified below are met [40 CFR 63.173(d)]:
  (i) Each dual mechanical seal system is:
    a. Operated with the barrier fluid at a pressure that is at all times greater than the agitator stuffing box pressure; or
    b. Equipped with a barrier fluid degassing reservoir that is routed to a process or fuel gas system or connected by a closed-vent system to a control device that complies with the requirements of 40 CFR 63.172; or
    c. Equipped with a closed-loop system that purges the barrier fluid into a process stream.
  (ii) The barrier fluid is not in light liquid organic HAP service.
  (iii) Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both.
  (iv) Each agitator is checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal.
    a. If there are indications of liquids dripping from the agitator seal at the time of the weekly inspection, the agitator shall be monitored as specified in 40 CFR 63.180(b) to determine the presence of organic HAP in the barrier fluid.
    b. If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected.
  (v) Each sensor as described in g.(5)(iii) of this condition is observed daily or is equipped with an alarm unless the agitator is located within the boundary of an unmanned plant site.
  (vi) The owner or operator determines, based on design considerations and operating experience, criteria applicable to the presence and frequency of drips and to the sensor that indicates failure of the seal system, the barrier fluid system, or both.
  (vii) If indications of liquids dripping from the agitator seal exceed the criteria established in paragraph g.(5)(vi) of this condition, or if, based on the criteria established in paragraph g.(5)(vi) of this condition, the sensor indicates failure of the seal system, the barrier fluid system, or both, a leak is detected.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION (Continued)

4. <u>Specific Monitoring Requirements (Continued):</u>

h. Pursuant to 40 CFR 63.174(a) and (b), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the following applies:

(1) The owner or operator shall monitor all connectors in gas/vapor and light liquid service, except as provided in 40 CFR 63.174(f) through (h), at the intervals specified in h.(2), below.

(i) The connectors shall be monitored to detect leaks by the method specified in 40 CFR 63.180(b).

(ii) If an instrument reading greater than or equal to 500 parts per million is measured, a leak is detected.

(2) The owner or operator shall monitor for leaks as specified below, except as provided in 40 CFR 63.174(c)(2):

(i) Once per year (i.e., 12-month period), if the percent leaking connectors, as determined according to 40 CFR 63.174(i) and (j), in the process unit was 0.5 percent or greater during the last required annual or biennial monitoring period.

(ii) Once every 2 years, if the percent leaking connectors, as determined according to 40 CFR 63.174(i) and (j), was less than 0.5 percent during the last required monitoring period. An owner or operator may comply with this paragraph by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The percent leaking connectors will be calculated for the total of all monitoring performed during the 2-year period.

(iii) If the owner or operator of a process unit in a biennial leak detection and repair program calculates less than 0.5 percent leaking connectors, as determined according to 40 CFR 63.174(i) and (j), from the 2-year monitoring period, the owner or operator may monitor the connectors one time every 4 years. An owner or operator may comply with the requirements of this paragraph by monitoring at least 20 percent of the connectors each year until all connectors have been monitored within 4 years.

(iv) If a process unit complying with the requirements of h.(2) of this condition using a 4-year monitoring interval program has greater than or equal to 0.5 percent but less than 1 percent leaking connectors, as determined according to 40 CFR 63.174(i) and (j), the owner or operator shall increase the monitoring frequency to one time every 2 years. An owner or operator may comply with the requirements of this paragraph by monitoring at least 40 percent of the connectors in the first year and the remainder of the connectors in the second year. The owner or operator may again elect to use the provisions of paragraph h.(2).(iii) of this condition when the percent leaking connectors, as determined according to 40 CFR 63.174(i) and (j), decreases to less than 0.5 percent.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION (Continued)

4. <u>Specific Monitoring Requirements (Continued):</u>

(v) If a process unit complying with requirements of paragraph h.(2)(iii) of this condition using a 4-year monitoring interval program has 1 percent or greater leaking connectors, as determined according to 40 CFR 63.174(i) and (j), the owner or operator shall increase the monitoring frequency to one time per year. The owner or operator may again elect to use the provisions of paragraph h.(2)(iii) of this condition when the percent leaking connectors, as determined according to 40 CFR 63.174(i) and (j), decreases to less than 0.5 percent.

i. Pursuant to 40 CFR 63.174(c), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the following applies:

(1) Except as provided in paragraph i.(2) of this condition, each connector that has been opened or has otherwise had the seal broken shall be monitored for leaks when it is reconnected or within the first 3 months after being returned to organic hazardous air pollutants service. If the monitoring detects a leak, it shall be repaired according to the provisions of 40 CFR 63.174(d), unless it is determined to be nonrepairable, in which case it is counted as a nonrepairable connector for the purposes of 40 CFR 63.174(i)(2).

(2) As an alternative to the requirements in paragraph i.(1) of this condition, an owner or operator may choose not to monitor connectors that have been opened or otherwise had the seal broken. In this case, the owner or operator may not count nonrepairable connectors for the purposes of 40 CFR 63.174(i)(2). The owner or operator shall calculate the percent leaking connectors for the monitoring periods described in 40 CFR 63.174(b), by setting the nonrepairable component, C_{AN}, in the equation in 40 CFR 63.174(i)(2) to zero for all monitoring periods.

(3) An owner or operator may switch alternatives described in paragraphs i.(1) and i.(2) of this condition at the end of the current monitoring period he is in, provided that it is reported as required in 40 CFR 63.182 and begin the new alternative in annual monitoring. The initial monitoring in the new alternative shall be completed no later than 12 months after reporting the switch

(4) As an alternative to the requirements of h.(2) of this section, each screwed connector 2 inches or less in nominal inside diameter installed in a process unit before the dates specified in paragraph i(4)(iii) or i.(4)(iii) of this condition may:

(i) Comply with the requirements of 40 CFR 63.169, and

(ii) Be monitored for leaks within the first 3 months after being returned to organic hazardous air pollutants service after having been opened or otherwise had the seal broken. If that monitoring detects a leak, it shall be repaired according to the provisions of 40 CFR 63.174(d).

(iii) For sources subject to 40 CFR 63 Subparts F and I, the provisions of paragraph i.(4) of this condition apply to screwed connectors installed before December 31, 1992.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION (Continued)

5. **Specific Recordkeeping Requirements:**
   a. Pursuant to 40 CFR 63.181(b), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the following information pertaining to all equipment in each process unit subject to the requirements in 40 CFR 63.162 through 63.174 shall be recorded and the records kept for 5 years:
      (1) A list of identification numbers for equipment (except connectors exempt from monitoring and recordkeeping identified in 40 CFR 63.174 and instrumentation systems) in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table. Connectors need not be individually identified if all connectors in a designated area or length of pipe subject to the provisions of this subpart are identified as a group, and the number of connectors subject is indicated.
      (2) A schedule by process unit for monitoring connectors subject to the provisions of 40 CFR 63.174(a) and valves subject to the provisions of 40 CFR 63.168(d).
      (3) A list of identification numbers for equipment that the owner or operator elects to equip with a closed-vent system and control device, under the provisions of 40 CFR 63.163(g), 63.164(h), 63.165(c), or 63.173(f).
      (4) A list of identification numbers for compressors that the owner or operator elects to designate as operating with an instrument reading of less than 500 parts per million above background, under the provisions of 40 CFR 63.164(i).
      (5) A list of identification numbers for pressure relief devices subject to the provisions in 40 CFR 63.165(a).
      (6) A list of identification numbers for pressure relief devices equipped with rupture disks, under the provisions of 40 CFR 63.165(d).
      (7) Identification of instrumentation systems in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table. Individual components in an instrumentation system need not be identified.
      (8) Identification of screwed connectors subject to the requirements of 40 CFR 63.174(c)(2). Identification can be by area or grouping as long as the total number within each group or area is recorded.
      (9) The following information shall be recorded for each dual mechanical seal system:
         (i) Design criteria required in 40 CFR 63.163(e)(6)(i), 63.164(e)(2), and 63.173(d)(6)(i) and an explanation of the design criteria; and
         (ii) Any changes to these criteria and the reasons for the changes.
      (10) The following information pertaining to all pumps subject to the provisions of 40 CFR 63.163(j), valves subject to the provisions of 40 CFR 63.168(h) and (i), agitators subject to the provisions of 40 CFR 63.173(h) through (j), and connectors subject to the provisions of 40 CFR 63.174(f) through (h) shall be recorded:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION(Continued)

5. <u>Specific Recordkeeping Requirements (Continued):</u>

(i) Identification of equipment designated as unsafe to monitor, difficult to monitor, or unsafe to inspect and the plan for monitoring or inspecting this equipment.

(ii) A list of identification numbers for the equipment that is designated as difficult to monitor, an explanation of why the equipment is difficult to monitor, and the planned schedule for monitoring this equipment.

(iii) A list of identification numbers for connectors that are designated as unsafe to repair and an explanation why the connector is unsafe to repair.

(11) A list of valves removed from and added to the process unit, as described in 40 CFR 63.168(e)(1), if the net credits for removed valves is expected to be used.

(12) A list of connectors removed from and added to the process unit, as described in 40 CFR 63.174(i)(1), and documentation of the integrity of the weld for any removed connectors, as required in 40 CFR 63.174(j). This is not required unless the net credits for removed connectors is expected to be used.

b. Pursuant to 40 CFR 63.181(c), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, for visual inspections of equipment, the owner or operator shall document that the inspection was conducted and the date of the inspection. The owner or operator shall maintain records as specified in 40 CFR 63.181(d) for leaking equipment identified in this inspection, except as provided in 40 CFR 63.181(e). These records shall be retained for 5 years.

c. Pursuant to 40 CFR 63.181(d), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, when each leak is detected as specified in 40 CFR 63.163, 63.164, 63.168, 63.169, 63.173, and 63.174, the following information shall be recorded and kept for 5 years:

(1) The instrument and the equipment identification number and the operator name, initials, or identification number.

(2) The date the leak was detected and the date of first attempt to repair the leak.

(3) The date of successful repair of the leak.

(4) Maximum instrument reading measured by Method 21 of 40 CFR part 60, Appendix A, after it is successfully repaired or determined to be nonrepairable.

(5) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

(i) The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair. The written procedures may be included as part of the startup/shutdown/malfunction plan, required by 40 CFR 63.6(e)(3), for the source or may be part of a separate document that is maintained at the plant site. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION (Continued)

5. <u>Specific Recordkeeping Requirements (Continued):</u>

(ii) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.

(6) Dates of process unit shutdowns that occur while the equipment is unrepaired.

(7) Identification, either by list, location (area or grouping), or tagging of connectors that have been opened or otherwise had the seal broken since the last monitoring period required in 40 CFR 63.174(b), as described in 40 CFR 63.174(c)(1), unless the owner or operator elects to comply with the provisions of 40 CFR 63.174(c)(1)(ii).

(8) The date and results of monitoring as required in 40 CFR 63.174(c). If identification of connectors that have been opened or otherwise had the seal broken is made by location under c.viii of this condition, then all connectors within the designated location shall be monitored.

(9) Copies of the periodic reports as specified in 40 CFR 63.182(d), if records are not maintained on a computerized database capable of generating summary reports from the records.

d. Pursuant to 40 CFR 63.181(f), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the dates and results of each compliance test required for compressors subject to the provisions in 40 CFR 63.164(i) and the dates and results of the monitoring following a pressure release for each pressure relief device subject to the provisions in 40 CFR 63.165(a) and (b). The results shall include:

(1) The background level measured during each compliance test.

(2) The maximum instrument reading measured at each piece of equipment during each compliance test.

e. Pursuant to 40 CFR 63.181(h), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, each owner or operator of a process unit subject to the requirements of 40 CFR 63.175 and 63.176 shall maintain the records specified below for the period of the quality improvement program for the process unit.

(1) For owners or operators who elect to use a reasonable further progress quality improvement program, as specified in 40 CFR 63.175(d):

(i) All data required in 40 CFR 63.175(d)(2).

(ii) The percent leaking valves observed each quarter and the rolling average percent reduction observed in each quarter.

(iii) The beginning and ending dates while meeting the requirements of 40 CFR 63.175(d).

(2) For owners or operators who elect to use a quality improvement program of technology review and improvement, as specified in 40 CFR 63.175(e):

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION (Continued)

5. <u>Specific Recordkeeping Requirements (Continued):</u>

(i) All data required in 40 CFR 63.175(e)(2).
(ii) The percent leaking valves observed each quarter.
(iii) Documentation of all inspections conducted under the requirements of 40 CFR 63.175(e)(4), and any recommendations for design or specification changes to reduce leak frequency.
(iv) The beginning and ending dates while meeting the requirements of 40 CFR 63.175(e).

(3) For owners or operators subject to the requirements of the pump quality improvement program as specified in 40 CFR 63.176:
(i) All data required in 40 CFR 63.176(d)(2).
(ii) The rolling average percent leaking pumps.
(iii) Documentation of all inspections conducted under the requirements of 40 CFR 63.176(d)(4), and any recommendations for design or specification changes to reduce leak frequency.
(iv) The beginning and ending dates while meeting the requirements of 40 CFR 63.176(d).

(4) If a leak is not repaired within 15 calendar days after discovery of the leak, the reason for the delay and the expected date of successful repair.

(5) Records of all analyses required in 40 CFR 63.175(e) and 63.176(d). The records will include the following:
(i) A list identifying areas associated with poorer than average performance and the associated service characteristics of the stream, the operating conditions and maintenance practices.
(ii) The reasons for rejecting specific candidate superior emission performing valve or pump technology from performance trials.
(iii) The list of candidate superior emission performing valve or pump technologies, and documentation of the performance trial program items required under 40 CFR 63.175(e)(6)(iii) and 63.176(d)(6)(iii).
(iv) The beginning date and duration of performance trials of each candidate superior emission performing technology.

(6) All records documenting the quality assurance program for valves or pumps as specified in 40 CFR 63.175(e)(7) and 63.176(d)(7).

(7) Records indicating that all valves or pumps replaced or modified during the period of the quality improvement program are in compliance with the quality assurance requirements in 40 CFR 63.175(e)(7) and 63.176(d)(7).

(8) Records documenting compliance with the 20 percent or greater annual replacement rate for pumps as specified in 40 CFR 63.176(d)(8).

(9) Information and data to show the corporation has fewer than 100 employees, including employees providing professional and technical contracted services.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION (Continued)

5. <u>Specific Recordkeeping Requirements (Continued):</u>

f. Pursuant to 40 CFR 63.181(i), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, the owner or operator of equipment in heavy liquid service shall comply with the requirements of either paragraph f.(1) or f.(2) of this condition, as provided in paragraph f.(3) of this condition.
   (1) Retain information, data, and analyses used to determine that a piece of equipment is in heavy liquid service.
   (2) When requested by the Administrator, demonstrate that the piece of equipment or process is in heavy liquid service.
   (3) A determination or demonstration that a piece of equipment or process is in heavy liquid service shall include an analysis or demonstration that the process fluids do not meet the definition of "in light liquid service." Examples of information that could document this include, but are not limited to, records of chemicals purchased for the process, analyses of process stream composition, engineering calculations, or process knowledge.

g. Pursuant to 40 CFR 63.181(j), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, identification, either by list, location (area or group) of equipment in organic HAP service less than 300 hours per year.

6. <u>Specific Reporting Requirements:</u>

a. Pursuant to 40 CFR 63.182(a)(3), for equipment in organic HAP service, as defined in 40 CFR 63.161, associated with a process unit listed as subject to 40 CFR 63 Subpart H in the Process Units Table, each owner or operator shall submit Periodic Reports in accordance with 40 CFR 63.182(d) as follows:
   (1) A report containing the information in paragraphs a.(2), a.(3) and a.(4) of this condition shall be submitted semiannually starting 6 months after the Notification of Compliance Status, as required in 40 CFR 63.182(c). The first periodic report shall cover the first 6 months after the compliance date specified in 40 CFR 63.100(k)(3). Each subsequent periodic report shall cover the 6-month period following the preceding period.
   (2) For each process unit complying with the provisions of 40 CFR 63.163 through 63.174, the summary information listed below for each monitoring period during the 6-month period.
      (i) The number of valves for which leaks were detected as described in 40 CFR 63.168(b), the percent leakers, and the total number of valves monitored;
      (ii) The number of valves for which leaks were not repaired as required in 40 CFR 63.168(f), identifying the number of those that are determined non-repairable;
      (iii) The number of pumps for which leaks were detected as described in 40 CFR 63.163(b), the percent leakers, and the total number of pumps monitored;

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR PART 63 SUBPART H LDAR OPTION (Continued)

6. Specific Reporting Requirements (Continued):

(iv) The number of pumps for which leaks were not repaired as required in 40 CFR 63.163(c);
(v) The number of compressors for which leaks were detected as described in 40 CFR 63.164(f);
(vi) The number of compressors for which leaks were not repaired as required in 40 CFR 63.164(g);
(vii) The number of agitators for which leaks were detected as described in 40 CFR 63.173(a) and (b);
(viii) The number of agitators for which leaks were not repaired as required in 40 CFR 63.173(c);
(ix) The number of connectors for which leaks were detected as described in 40 CFR 63.174(a), the percent of connectors leaking, and the total number of connectors monitored;
(x) The number of connectors for which leaks were not repaired as required in 40 CFR 63.174(d), identifying the number of those that are determined non-repairable;
(xi) The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible.
(xii) The results of all monitoring to show compliance with 40 CFR 63.164(i), 63.165(a), and 63.172(f) conducted within the semiannual reporting period.
(xiii) If applicable, the initiation of a monthly monitoring program under 40 CFR 63.168(d)(1)(i), or a quality improvement program under either 40 CFR 63.175 or 63.176.
(xiv) If applicable, notification of a change in connector monitoring alternatives as described in 40 CFR 63.174(c)(1).
(xv) If applicable, the compliance option that has been selected under 40 CFR 63.172(n).

7. Specific Control Equipment Operating Conditions:
None

8. Alternate Operating Scenarios:
None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR 63 SUBPART UUU FOR CATALYTIC REFORMING UNITS

1. **Operating Limitations:**
   a. Pursuant to 40 CFR 63 Subpart UUU, Table 16 referenced from 63.1566(a)(5), to comply with the percent reduction option with no control device, the permittee shall do the following:
   "Operate at all times according to your operation, maintenance, and monitoring plan regarding minimum catalyst purging conditions that must be met prior to allowing uncontrolled purge releases."

   b. Pursuant to 40 CFR 63 Subpart UUU, 63.1570, the permittee shall comply with the following general operating requirements:
   "(c) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i)…
   (e) During periods of startup, shutdown, and malfunction, you must operate in accordance with your SSMP."

2. **Emission Limitations:**
   a. Pursuant to 40 CFR 63 Subpart UUU, Table 15 referenced from 63.1566(a)(1), and 63.1566(c)(1), the permittee shall comply with the following:
   "(a)(1) Reduce uncontrolled emissions of total organic compounds (TOC) or nonmethane TOC from your process vent by 98 percent by weight using a control device or to a concentration of 20 ppmv (dry basis as hexane), corrected to 3 percent oxygen, whichever is less stringent. If you vent emissions to a boiler or process heater to comply with the percent reduction or concentration emission limitation, the vent stream must be introduced into the flame zone, or any other location that will achieve the percent reduction or concentration standard.
   (c)(1) Maintaining a 98 percent by weight emission reduction of TOC or nonmethane TOC; or maintaining a TOC or nonmethane TOC concentration of not more than 20 ppmv (dry basis as hexane), corrected to 3 percent oxygen, whichever is less stringent."

   b. Pursuant to 40 CFR 63 Subpart UUU, 63.1566(a)(3),
   "(a)(3) Except as provided in paragraph (a)(4) of this section, the emission limitations in Tables 15 and 16 of this subpart apply to emissions from catalytic reforming unit process vents associated with initial catalyst depressuring and catalyst purging operations that occur prior to the coke burn-off cycle. The emission limitations in Tables 15 and 16 of this subpart do not apply to the coke burn-off, catalyst rejuvenation, reduction or activation vents, or to the control systems used for these vents.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR 63 SUBPART UUU FOR CATALYTIC REFORMING UNITS (Continued)

2. <u>Emission Limitations (Continued):</u>

(a)(4) The emission limitations in Tables 15 and 16 of this subpart do not apply to emissions from process vents during depressuring and purging operations when the reactor vent pressure is 5 pounds per square inch gauge (psig) or less."

c. Pursuant to 40 CFR 63 Subpart UUU, 63.1567(a)(1), the permittee shall comply with the following:

"(a)(1) Reduce uncontrolled emissions of HCl by 97 percent by weight or to a concentration of 10 ppmv (dry basis), corrected to 3 percent oxygen."

d. Pursuant to 40 CFR 63 Subpart UUU, 63.1570, the permittee shall comply with the following general emissions limitation requirements:

"(a) You must be in compliance with all of the non-opacity standards in this subpart during the times specified in § 63.6(f)(1).

(g) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the SSMP. The SSMP must require that good air pollution control practices be used during those periods. The plan must also include elements designed to minimize the frequency of such periods (i.e., root cause analysis). The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e) and the contents of the SSMP."

3. <u>Testing Requirements:</u>

None

4. <u>Specific Monitoring Requirements:</u>

a. Pursuant to 40 CFR 63 Subpart UUU, Table 20, option 2 referenced from 63.1566(c)(1), continuous compliance with the emissions limitation shall be demonstrated by:

"Maintaining a 98 percent by weight emission reduction of TOC or nonmethane TOC; or maintaining a TOC or nonmethane TOC concentration of not more than 20 ppmv (dry basis as hexane), corrected to 3 percent oxygen, whichever is less stringent."

b. Pursuant to 40 CFR 63 Subpart UUU, Table 24 for a wet scrubber referenced by 63.1567(b)(1), the permittee must install and maintain the following for demonstration of the HCl emissions limit:

"Continuous parameter monitoring system to measure and record the total water (or scrubbing liquid) flow rate entering the scrubber during coke burn-off and catalyst rejuvenation; and continuous parameter monitoring system to measure and record gas flow rate entering or exiting the scrubber during coke burn-off and catalyst rejuvenation 1; and continuous parameter monitoring system to measure and record the pH or alkalinity of

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR 63 SUBPART UUU FOR CATALYTIC REFORMING UNITS (Continued)

4. <u>Specific Monitoring Requirements (Continued):</u>

the water (or scrubbing liquid) exiting the scrubber during coke burn-off and catalyst rejuvenation."

c. Pursuant to 40 CFR 63 Subpart UUU, 63.1572, the permittee must operate the continuous parameter monitoring system as described:

"(c)(1) The owner or operator shall install, operate, and maintain each continuous parameter monitoring system in a manner consistent with the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment will monitor accurately. The owner or operator shall also meet the equipment specifications in Table 41 of this subpart if pH strips or colormetric tube sampling systems are used.

(c)(2) The continuous parameter monitoring system must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data (or at least two if a calibration check is performed during that hour or if the continuous parameter monitoring system is out-of-control).

(c)(3) Each continuous parameter monitoring system must have valid hourly average data from at least 75 percent of the hours during which the process operated.

(d)(1) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation (or collect data at all required intervals) at all times the affected source is operating."

5. <u>Specific Recordkeeping Requirements:</u>

a. Pursuant to 40 CFR 63 Subpart UUU, Table 21 option 2.b. referenced from 63.1566(c)(1) the following records must be kept to demonstrate compliance:

" (Record) information to document compliance with the procedures in your operation, maintenance, and monitoring plan."

b. Pursuant to 40 CFR 63 Subpart UUU, 63.1567 and 63.1572 the following records must be kept to demonstrate compliance with the HCl limit:

[Table 28 for wet scrubbers referenced from 40 CFR 63.1567]

"(Collect) the hourly and daily average pH or alkalinity monitoring data according to § 63.1572 1; and (maintain) the daily average pH or alkalinity above the operating limit established during the performance test.

(Collect) the hourly average gas flow rate 2 and total water (or scrubbing liquid) flow rate monitoring data according to § 63.1572; and (determine) and (record) the hourly average liquid-to-gas ratio; and determining and recording the daily average liquid-to-gas ratio; and maintaining the daily average liquid-to-gas ratio above the limit established during the performance test."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR 63 SUBPART UUU FOR CATALYTIC REFORMING UNITS (Continued)

5. <u>Specific Recordkeeping Requirements:</u>

[40 CFR 63.1572]

"(c)(4) Each continuous parameter monitoring system must determine and record the hourly average of all recorded readings and if applicable, the daily average of all recorded readings for each operating day. The daily average must cover a 24-hour period if operation is continuous or the number of hours of operation per day if operation is not continuous.

(c) (5) Each continuous parameter monitoring system must record the results of each inspection, calibration, and validation check.

(d) (2) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities for purposes of this regulation, including data averages and calculations, for fulfilling a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system."

c. Pursuant to 40 CFR 63 Subpart UUU, 63.1570, the permittee shall comply with the following general record keeping requirements:

"(c) During the period between the compliance date specified for your affected source and the date upon which continuous monitoring systems have been installed and validated and any applicable operating limits have been set, you must maintain a log detailing the operation and maintenance of the process and emissions control equipment.

(d) You must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3)."

d. Pursuant to 40 CFR 63 Subpart UUU, 63.1567 the following records must be kept to demonstrate compliance:

"(c)(4) Each continuous parameter monitoring system must determine and record the hourly average of all recorded readings and if applicable, the daily average of all recorded readings for each operating day. The daily average must cover a 24-hour period if operation is continuous or the number of hours of operation per day if operation is not continuous.

(c) (5) Each continuous parameter monitoring system must record the results of each inspection, calibration, and validation check.

(d) (2) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities for purposes of this regulation, including data averages and calculations, for fulfilling a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR 63 SUBPART UUU FOR CATALYTIC REFORMING UNITS (Continued)

5. **Specific Recordkeeping Requirements (Continued):**
   e. Pursuant to 40 CFR 63 Subpart UUU, 63.1574 the required operation, maintenance and monitoring plan shall meet the following requirements:
   "(f)As required by this subpart, you must prepare and implement an operation, maintenance, and monitoring plan for each control system and continuous monitoring system for each affected source.
   (2) Each plan must include, at a minimum, the information specified in paragraphs (f)(2)(i) through (xii) of this section.
   (i) Parameters to be monitored for each affected source, along with established operating limits.
   (ii) Procedures for monitoring emissions and process and control device operating parameters for each affected source.
   (v) Procedures you will use to determine the pH of the water (or scrubbing liquid) exiting a wet scrubber if you use pH strips.
   (vi) Procedures you will use to determine the HCl concentration of gases from a catalytic reforming unit when you use a colormetric tube sampling system, including procedures for correcting for pressure (if applicable to the sampling equipment) and the sampling locations that will be used for compliance monitoring purposes.
   (x) Maintenance schedule for each affected source, monitoring system, and control device that is generally consistent with the manufacturer's instructions for routine and long-term maintenance.
   (xii) Procedures that will be used for purging the catalyst if you do not use a control device to comply with the organic HAP emission limits for catalytic reforming units. These procedures will include, but are not limited to, specification of the minimum catalyst temperature and the minimum cumulative volume of gas per mass of catalyst used for purging prior to uncontrolled releases (i.e., during controlled purging events); the maximum purge gas temperature for uncontrolled purge events; and specification of the monitoring systems that will be used to monitor and record data during each purge event"
   f. Pursuant to 40 CFR 63 Subpart UUU, 63.1576 the following general record keeping requirements must be met:
   "(a) You must keep the records specified in paragraphs (a)(1) through (3) of this section
   (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or Notification of Compliance Status that you submitted, according to the requirements in § 63.10(b)(2)(xiv).
   (2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR 63 SUBPART UUU FOR CATALYTIC REFORMING UNITS (Continued)

5. <u>Specific Recordkeeping Requirements (Continued):</u>

(3) Records of performance tests, performance evaluations, and opacity and visible emission observations as required in § 63.10(b)(2)(viii).

(b) For each continuous emission monitoring system and continuous opacity monitoring system, you must keep the records required in paragraphs (b)(1) through (5):

(1) Records described in § 63.10(b)(2)(vi) through (xi)…

(3) Previous (i.e., superceded) versions of the performance evaluation plan as required in § 63.8(d)(3).

(4) Requests for alternatives to the relative accuracy test for continuous emission monitoring systems as required in § 63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records in § 63.6(h) for visible emission observations.

(d) You must keep records required by Tables 6, 7, 13, and 14 of this subpart (for catalytic cracking units); Tables 20, 21, 27 and 28 of this subpart (for catalytic reforming units); Tables 34 and 35 of this subpart (for sulfur recovery units); and Table 39 of this subpart (for bypass lines) to show continuous compliance with each emission limitation that applies to you.

(e) You must keep a current copy of your operation, maintenance, and monitoring plan onsite and available for inspection. You also must keep records to show continuous compliance with the procedures in your operation, maintenance, and monitoring plan.

(g) Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1).

(h) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(i) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records offsite for the remaining 3 years.

6. <u>Specific Reporting Requirements:</u>

a. Pursuant to 40 CFR 63 Subpart UUU, 63.1570, the permittee shall comply with the following general reporting requirements:

"(f) You must report each instance in which you did not meet each emission limitation and each operating limit in this subpart that applies to you. This includes periods of startup, shutdown, and malfunction. You also must report each instance in which you did not meet the work practice standards in this subpart that apply to you. These instances are deviations from the emission limitations and work practice standards in this subpart. These deviations must be reported according to the requirements in § 63.1575."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR 63 SUBPART UUU FOR CATALYTIC REFORMING UNITS (Continued)

6. <u>Specific Reporting Requirements (Continued):</u>

b. Pursuant to 40 CFR 63 Subpart UUU, 63.1575 and Table 43, the permittee shall submit each report that applies as follows:

[Table 43]

"If there are no deviations from any emission limitation or work practice standard that applies to you, [the compliance report must contain] *a statement that there were no deviations from the standards during the reporting period and that no continuous opacity monitoring system or continuous emission monitoring system was inoperative, inactive, out-of-control, repaired, or adjusted;*

and if you have a deviation from any emission limitation or work practice standard during the reporting period, the report must contain the information in § 63.1575(d) or (e)

[The compliance report must be submitted] *Semiannually according to the requirements § 63.1575(b)."*

[40 CFR 63.1575]

"(b)(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to part 70 or 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to §70.6(a)(3)(iii)(A) or § 71.6(a)(3)(iii)(A) of this chapter, you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information required in paragraphs (c)(1) through (4) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If there are no deviations from any emission limitation that applies to you and there are no deviations from the requirements for work practice standards, a statement that there were no deviations from the emission limitations or work practice standards during the reporting period and that no continuous emission monitoring system or continuous opacity monitoring system was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted…

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR 63 SUBPART UUU FOR CATALYTIC REFORMING UNITS (Continued)

6. <u>Specific Reporting Requirements (Continued):</u>

(d) (1) The total operating time of each affected source during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(3) Information on the number, duration, and cause for monitor downtime incidents (including unknown cause, if applicable, other than downtime associated with zero and span and other daily calibration checks).

(e) For each deviation from an emission limitation occurring at an affected source where you are using a continuous opacity monitoring system or a continuous emission monitoring system to comply with the emission limitation, you must include the information in paragraphs (d)(1) through (3) of this section and the information in paragraphs (e)(1) through (13) of this section.

(1) The date and time that each malfunction started and stopped.

(2) The date and time that each continuous opacity monitoring system or continuous emission monitoring system was inoperative, except for zero (low-level) and high-level checks.

(3) The date and time that each continuous opacity monitoring system or continuous emission monitoring system was out-of-control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging period specified in the regulation for other types of emission limitations), and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period and into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging time specified in the regulation for other types of standards), and the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system as a percent of the total source operating time during that reporting period.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR 63 SUBPART UUU FOR CATALYTIC REFORMING UNITS (Continued)

6. <u>Specific Reporting Requirements (Continued):</u>

(8) A breakdown of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.

(9) An identification of each HAP that was monitored at the affected source.

(10) A brief description of the process units.

(11) The monitoring equipment manufacturer(s) and model number(s).

(12) The date of the latest certification or audit for the continuous opacity monitoring system or continuous emission monitoring system.

(13) A description of any change in the continuous emission monitoring system or continuous opacity monitoring system, processes, or controls since the last reporting period.

(f) You also must include the information required in paragraphs (f)(1) through (2) of this section in each compliance report, if applicable.

(1) A copy of any performance test done during the reporting period on any affected unit. The report may be included in the next semiannual report. The copy must include a complete report for each test method used for a particular kind of emission point tested. For additional tests performed for a similar emission point using the same method, you must submit the results and any other information required, but a complete test report is not required. A complete test report contains a brief process description; a simplified flow diagram showing affected processes, control equipment, and sampling point locations; sampling site data; description of sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; documentation of calculations; and any other information required by the test method.

(2) Any requested change in the applicability of an emission standard (e.g., you want to change from the PM standard to the Ni standard for catalytic cracking units or from the HCl concentration standard to percent reduction for catalytic reforming units) in your periodic report. You must include all information and data necessary to demonstrate compliance with the new emission standard selected and any other associated requirements.

(g) You may submit reports required by other regulations in place of or as part of the compliance report if they contain the required information.

(h) The reporting requirements in paragraphs (h)(1) and (2) of this section apply to startups, shutdowns, and malfunctions:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

40 CFR 63 SUBPART UUU FOR CATALYTIC REFORMING UNITS (Continued)

6. <u>Specific Reporting Requirements (Continued):</u>

(1) When actions taken to respond are consistent with the plan, you are not required to report these events in the semiannual compliance report and the reporting requirements in §§ 63.6(e)(3)(iii) and 63.10(d)(5) do not apply.

(2) When actions taken to respond are not consistent with the plan, you must report these events and the response taken in the semiannual compliance report. In this case, the reporting requirements in §§ 63.6(e)(3)(iv) and 63.10(d)(5) do not apply."

7. <u>Specific Control Equipment Operating Conditions:</u>

Pursuant to 40 CFR 63 Subpart UUU, Table 23 for a wet scrubber referenced from 63.1567(a)(2), the permittee shall meet the following site-specific operating limit. This limit applies only during coke burn-off and catalyst rejuvenation:

"The daily average pH or alkalinity of the water (or scrubbing liquid) exiting the scrubber must not fall below the limit established during the performance test; and the daily average liquid-to-gas ratio must not fall below the limit established during the performance test."

8. <u>Alternate Operating Scenarios</u>:

None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG018: HYDROGEN FLUORIDE ALKYLATION UNIT (HF ALKY)

DESCRIPTION: HF ALKY (2-036)

1. **Operating Limitations:**
   a. The fugitive hydrocarbon emissions from the HF Alkylation Unit shall be controlled by design of the unit in the following manner: [State-only Requirement as per O-93-016, revision 1]
      (1) All relief valves shall be vented to the refinery flare system.
      (2) All pumps and compressors shall be equipped with mechanical seals, dual seals, or purged seals.
      (3) All unit blowdowns shall be vented to the refinery flare system.
   b. This operating permit does not authorize the operation of any affected facility which has process vent emissions of hydrofluoric acid (HF), or any other gaseous fluorides, to the atmosphere. [State-only Requirement as per O-93-016, revision1]
   c. Within thirty (30) days of receipt of a written determination by the Division, which shall be issued separately from any inspection report, or within ninety (90) days after start-up following each HF process unit turnaround, the permittee shall repaint or reactivate each of the surfaces currently covered with HF sensitive paint that are identified as having lost effectiveness in indicating the presence of HF acid. [State-only Requirement as per O-93-016 revision 1].
   d. Fresh anhydrous HF acid shall be delivered by tanker truck only. [State-only Requirement as per O-93-016 rev. 1].
   e. Upon advanced written request from the Director, the permittee shall begin to notify the Ashland Regional Office of scheduled anhydrous HF and deliveries as soon as is practical after such schedules are arranged. The permittee shall only be required to provide such notification for the three HF deliveries immediately following the written notice. [State-only Requirement as per O-93-016 revision 1].
   f. Transfer of fresh anhydrous HF acid shall be performed and completed during daylight hours only, unless the permittee can demonstrate to the Director that lighting in the unloading area can be maintained at daylight levels. [State-only Requirement as per O-93-016 revision 1].
   g. Before any anhydrous HF acid is transferred to the HF tank, or other equipment, the operator shall take the following measures to ensure that the risk of a release of HF to the atmosphere is minimized: [State-only Requirement as per O-93-016 revision 1].
      (1) Verify that all process valves, and the nitrogen pressure controllers are properly configured and operable.
      (2) Verify that there is sufficient volume in the tank for the anhydrous HF acid that is to be transferred.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG 018: HYDROGEN FLUORIDE ALKYLATION UNIT (HF ALKY) (Continued)

1. **Operating Limitations (Continued):**
   (3) Verify that the keys are removed from the tanker truck and are in the possession of the operator until all piping has been disconnected and all hoses secured.
   (4) When the transport container is spotted at the unloading area, the brakes shall be set, the wheels shall be chocked, the bonding wire shall be hooked up, clearly visible warning signs shall be posted and the area shall be marked such that it is isolated from personnel not directly associated with the anhydrous HF acid transfer.
   (5) The tanker truck shall be pressured with nitrogen to a pressure higher than that of the storage tank before the tanker's liquid discharge valve is opened such that backflow of liquid or gas is prevented.
   (6) All connections with a reasonable potential for release of anhydrous HF acid to the atmosphere shall be checked with a liquid leak detector to ensure there are no leaks.
   (7) All anhydrous HF acid transfer lines shall have a minimum working pressure of 150 psig.
   (8) Verify that the acid unloading line and nitrogen line are connected to their respective openings using, at a minimum, solid, 1/8 inch PTFE or PTFE coated steel gaskets and B7M bolts that are in good condition, or their equivalents.

   h. Upon request of the Director, the permittee shall conduct inspections of equipment for corrosion, excessive weld hardness, pump wear or other problems, which may increase the risk of a release of anhydrous HF acid to the atmosphere. Inspection and corrective techniques include but are not limited to [State-only Requirement as per O-93-016, revision 1].
   (1) X-ray and hardness testing of specific welds as well as the proper corrective stress relieving procedures.
   (2) Ultrasonic, acoustic emissions testing, use of corrosion probes and visual inspection for corrosion
   (3) Wet fluorescent magnetic particle inspection, eddy current testing, hydrotesting, radiography, and leak testing for identification of cracks, fractures or bad joints in metal equipment due to corrosion or mechanical stress.

   i. If the HF Alkylation Unit is expanded or modified the Division may establish additional requirements for the Prevention, Detection, and Mitigation (PDM) system subject to reasonable construction schedules. [State-only Requirement as per O-93-016, revision 1]

2. **Emission Limitations:**
   None

3. **Testing Requirements:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG 018, HYDROGEN FLUORIDE ALKYLATION UNIT (HF ALKY) (Continued)

4. **Monitoring Requirements:**
   The Prevention, Detection and Mitigation (PDM) system shall be operational at any time the HF Alkylation Unit is operating. Any malfunctioning component of the PDM system shall be repaired and made operational as soon as is practicable. The permittee shall maintain records of any component that has malfunctioned, the date, which it was discovered, and the date it was repaired. [State-only Requirement as per O-93-016 revision 1].

5. **Recordkeeping Requirements:**
   The permittee shall maintain records of average annual HF acid consumption on a pounds HF consumed per barrel of alkylate produced and make said records available to Division personnel upon request. [State-only Requirement as per O-93-016 revision 1].

6. **Reporting Requirements:**
   None

7. **Control Equipment Operating Conditions:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG 043, FLUIDIZED CATALYTIC CRACKING UNIT (FCCU)

DESCRIPTION
Fluidized Catalytic Cracking Unit (FCCU) (2-109)

Exhaust gases from the catalyst regenerator are vented to the existing Heat Recovery Units (ID Nos. 2-116-B-1 and 2-116-B-2) for heat recovery. These units are fuel gas combustion devices that are also addressed in the "Combustion Devices" section of this permit.

1. **Operating Limitations:**
   a. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including the periods of start-up, shutdowns, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice to minimize emissions.

   Compliance Demonstration Method:
   Demonstration of compliance with standards and maintenance operating limitations include the following:

   (1) Should a malfunction occur, the FCCU regenerator vent valves may be opened only for the minimum length of time necessary to correct the malfunction in the most expeditious manner possible. [ref. VF-02-001].

   (2) The FCCU emergency regenerator vent valves may be stroked for a period of time not to exceed 6 minutes during any calendar day. Opacity of visible emissions from the emergency regenerator vent valve during stroking shall not equal or exceed 40 percent as determined by opacity CEM or U.S. EPA Reference Method 9 [ref. VF-02-001].

   (3) The FCCU emergency regenerator vent valves may be opened during maintenance and/or an annual safety inspection of air pollution control equipment only if: [ref. VF-02-001].
   (i) The requirements regarding planned shut-downs contained in 401 KAR 50:055 Section 1(2) are followed, and
   (ii) The vent valves are opened for the minimum length of time necessary to perform the required function.

   (4) During all start-ups of the FCCU, the following conditions apply:
   (i) During the initial heating phase the vent valves may be opened provided the opacity does not equal or exceed twenty (20) percent as measured by EPA Method 9.
   (ii) Upon the initial introduction of catalyst into the FCCU, the emergency regenerator vent valve shall be closed.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG 043, FLUIDIZED CATALYTIC CRACKING UNIT (FCCU) (Continued):

1. **Operating Limitations (Continued):**

(5) During all shutdown procedures the permittee shall use all reasonable measures to minimize emissions. [ref. VF-02-001].

(6) The FCCU vent stack shall be equipped with a valve that, in closed position, results in no more than five percent (5%) opacity, six (6) minute average, as determined by EPA Method 9, except as consistent with 401 KAR 50:055 in the event of a malfunction of the FCCU.

b. Pursuant to 40 CFR 63 Subpart UUU, 63.1564(a)(3), the Fluidized Catalytic Cracking Unit including the FCCU bypass, shall be operated at all times according to the procedure in the prepared operation, maintenance, and monitoring plan.

c. Pursuant to 40 CFR 63 Subpart UUU, 63.1570, the permittee shall comply with the following general operating requirements:
(1) *You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i)…*
(2) *During periods of startup, shutdown, and malfunction, you must operate in accordance with your Startup, Shutdown, and Malfunction Plan (SSMP).*

d. Pursuant to 40 CFR 63 Subpart UUU, Table 36 referenced from 63.1569(a) option 1, for the FCCU bypass line, the permittee shall:
Install and operate a device (including a flow indicator, level recorder, or electronic valve position monitor) to demonstrate, either continuously or at least every hour, whether flow is present in the by bypass line. Install the device at or as near as practical to the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere.

Compliance Demonstration Method:
On October 21, 2005, in accordance with 40 CFR 63 Subpart UUU, the permittee submitted a revision to the Operation, Maintenance, and Monitoring Plan (OMMP) for Section 7 Bypass Lines that describes the method for detecting a bypass at the FCCU.

2. **Emission Limitations:**

a. Pursuant to 40 CFR 60 Subpart J, 60.102(a)(1), emissions of particulate matter into the atmosphere from the FCCU catalyst regenerator shall not exceed 1.0 lb per 1,000 lbs of coke burn-off in the FCCU catalyst regenerator.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG043, FLUIDIZED CATALYTIC CRACKING UNIT (FCCU) (Continued)

2. Emission Limitations (Continued):

Compliance Demonstration Method:
An initial performance test was performed on May 4, 2004 using EPA Reference Method 5B and in accordance with 40 CFR 60.8, that showed compliance with emission limits for particulate matter. The unit is continuously monitored by a Continuous Emission Monitoring (CEM), which had a Relative Accuracy Test Audit (RATA) performed on May 23, 2006 and was within the required certification limits.

b. Pursuant to 40 CFR 60 Subpart J, 60.102(a)(2), emissions into the atmosphere from the FCCU catalyst regenerator shall not exceed 30 percent opacity, based on a six-minute average, except that one six-minute period in excess of 30 percent opacity is allowed during each one-hour period.

Compliance Demonstration Method:
A continuous opacity monitoring system (COM) shall be calibrated, maintained and operated to demonstrate compliance with the opacity limitation. The COM had a RATA performed on May 23, 2006, and was within the required certification limits.

c. Pursuant to 40 CFR 60 Subpart J, 60.103(a), the concentration of carbon monoxide in the exhaust from the FCCU catalyst regenerator shall not exceed 500 ppmv (0.050 percent by vol.) on a dry basis, on a one-hour average.

Compliance Demonstration Method:
A carbon monoxide CEM shall be calibrated, maintained and operated to demonstrate compliance with the carbon monoxide concentration limit. The CEM had a RATA performed on May 23, 2006, and was within the required certification limits.

d. Pursuant to 40 CFR 60 Subpart J, 60.104(b), emissions into the atmosphere from the FCCU catalyst regenerator shall be restricted in accordance with one of the following:
   (1) Without the use of an add-on control device, maintain sulfur oxides emissions calculated as sulfur dioxide to the atmosphere less than or equal to 9.8 kg/Mg (20 lb/ton) coke burn-off; or
   (2) Process in the fluid catalytic cracking unit fresh feed that has a total sulfur content no greater than 0.30 percent by weight; or
   (3) With an add-on control device, reduce sulfur dioxide emissions to the atmosphere by 90 percent or maintain sulfur dioxide emissions to the atmosphere less than or equal to 50 ppm by volume (ppmv), whichever is less stringent.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG043, FLUIDIZED CATALYTIC CRACKING UNIT (FCCU) (Continued)

2. Emission Limitations (Continued):

Compliance Demonstration Method:
A sulfur dioxide CEM shall be calibrated, maintained and operated to demonstrate compliance with the sulfur dioxide concentration limit. The CEM had a RATA performed on May 23, 2006, and was within the required certification limits.

e. (1) Pursuant to the US EPA Consent Decree, during periods of hydrotreater outage, the permittee can elect to comply with the short-term SO_2 limits indicated in 2.d, above, or alternatively with actions included in the approved Hydrotreater Outage Plan.
(2) Pursuant to the US EPA Consent Decree, the emission limits for SO_2 shall be 25 ppmvd (0% O_2) on a 365 day rolling average and 50 ppmvd (0% O_2) on a 7 day rolling average.

Compliance Demonstration Method:
For compliance with the USEPA Consent Decree options, refer to Section F.7 through F.9.

f. The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources, to the proposed modification. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon nonattainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 51:052. The "synthetic minor" emission limitations for the FCCU and the Number 5 Package Boiler are as follows: [VF-02-001 (Revision 3)]

Affected Units	Maximum emissions (ton/yr)				
	SO2	NOx	VOC	CO	PM10
FCCU (including Heat Recovery Units North and South and Number 5 Package Boiler)	256.0	365.0	55.0	448.0	265.4

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG043, FLUIDIZED CATALYTIC CRACKING UNIT (FCCU) (Continued)

2. Emission Limitations (Continued):

In addition, heat input to each of these heat recovery units shall not exceed 431 mmBtu/hr (HHV), based on a 365-day rolling average, and heat input to the Number 5 Package Boiler shall not exceed 249 mmBtu/hr (HHV), based on a 365-day rolling average.

Compliance Demonstration Method: The permittee shall calculate for each day, in tons per year, the rolling 365-day emissions of each pollutant from each unit. The emissions of SO_2, NO_X, and CO shall be based upon exhaust flow rate and CEMS data. The emissions of VOC and PM_{10} shall be based upon emission factors from the most recent performance test.

g. Pursuant to 40 CFR 63 Subpart UUU, Table 1 referenced from 63.1564(a)(1), emissions into the atmosphere from the FCCU catalyst regenerator shall be restricted in accordance with the following:
"...PM emissions must not the exceed 1.0 kilogram (kg) per 1,000 kg (1.0 lb/1,000 lb) of coke burn-off in the catalyst regenerator; if the discharged gases pass through an incinerator or waste heat boiler in which you burn auxiliary or in supplemental liquid or solid fossil fuel, the incremental rate of PM emissions must not exceed 43.0 grams per Giga-joule (g/GJ) or 0.10 pounds per million British thermal units (lb/million Btu) of heat input attributable to the liquid or solid fossil fuel; and the opacity of emissions must not exceed 30 percent, except for one 6-minute average opacity reading in any 1-hour period." [40 CFR 63.1564(a)(1)(i)- comply with the NSPS requirement option].

Compliance Demonstration Method: The permittee shall demonstrate compliance with this emissions limitation through demonstrating compliance with the emissions limit pursuant to 40 CFR 60 Subpart J, 60.102(a)(1) (401 KAR 60:100).

h. Pursuant to 40 CFR 63 Subpart UUU, Table 8 referenced from 63.1565(a)(1), emissions of CO from
"...the catalyst regenerator vent or CO boiler serving the catalytic cracking unit must not exceed 500 ppmv (dry basis)."

Compliance Demonstration Method: The permittee shall demonstrate compliance with this emissions limitation through demonstrating compliance with the emissions limit pursuant to 40 CFR 60 Subpart J, 60.103(a) (401 KAR 60:100).

i. Pursuant to 40 CFR 63 Subpart UUU, 63.1570, the permittee shall comply with the following general emissions limitation requirements:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG043, FLUIDIZED CATALYTIC CRACKING UNIT (FCCU) (Continued)

2. <u>Emission Limitations (Continued)</u>:

(1) *You must be in compliance with all of the non-opacity standards in this subpart during the times specified in § 63.6(f)(1).*

(2) *You must be in compliance with the opacity and visible emission limits in this subpart during the times specified in § 63.6(h)(1)*

(3) *Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the SSMP. The SSMP must require that good air pollution control practices be used during those periods. The plan must also include elements designed to minimize the frequency of such periods (i.e., root cause analysis). The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e) and the contents of the SSMP.*

3. <u>Testing Requirements:</u>

None

4. <u>Specific Monitoring Requirements:</u>

a. The permittee shall monitor opacity from each Heat Recovery Unit via a continuous opacity monitoring system (COMS). The averaging time shall be a block six (6) minute average.

b. The permittee shall monitor carbon monoxide (CO), sulfur dioxide (SO_2), and nitrogen oxides (NO_X) concentration in the exhaust from each Heat Recovery Unit and from the Number 5 Package Boiler via CEMS.

c. The permittee shall comply with all provisions of 40 CFR 60 Appendix F, Quality Assurance Requirements for Gas Continuous Emission Monitoring Systems Used for Compliance Determination, for the FCCU COMS and from each CO, SO_2, and NO_X CEMS.

d. The permittee shall monitor and record hourly the pressure drop across the FCCU baghouse.

e. Pursuant to 40 CFR 63 Subpart UUU, Table 39 referenced from 63.1569(c), for the FCC bypass line, the permittee shall:
(Monitor) and (record) on a continuous basis or at least every hour whether flow is present in the bypass line; visually inspecting the device at least once every hour if the device is not equipped with a recording system that provides a continuous record; and recording whether the device is operating properly and whether flow is present in the bypass line.

f. Pursuant to 40 CFR 63 Subpart UUU, 63.1564(a)(2), a continuous opacity monitoring system shall be installed, operated and maintained to measure and record the opacity of emissions from the catalyst regenerator vent.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG043, FLUIDIZED CATALYTIC CRACKING UNIT (FCCU) (Continued)

4. <u>Specific Monitoring Requirements (Continued):</u>

g. Pursuant to 40 CFR 63 Subpart UUU, 63.1572, the permittee must operate the continuous parameter monitoring system as described:

"*(b)(1) Each continuous opacity monitoring system must be installed, operated, and maintained according to the requirements in Table 40 of this subpart.*

(b)(2) If you use a continuous opacity monitoring system to meet the NSPS opacity limit, you must conduct a performance evaluation of each continuous opacity monitoring system according to the requirements in § 63.8 and Table 40 of this subpart. This requirement does not apply to an affected source subject to the NSPS that has already demonstrated initial compliance with the applicable performance specification

(b)(3) As specified in § 63.8(c)(4)(i), each continuous opacity monitoring system must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(c)(1) The owner or operator shall install, operate, and maintain each continuous parameter monitoring system in a manner consistent with the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment will monitor accurately. The owner or operator shall also meet the equipment specifications in Table 41 of this subpart if pH strips or colormetric tube sampling systems are used.

(c)(2) The continuous parameter monitoring system must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data (or at least two if a calibration check is performed during that hour or if the continuous parameter monitoring system is out-of-control).

(c)(3) Each continuous parameter monitoring system must have valid hourly average data from at least 75 percent of the hours during which the process operated.

(d)(1) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation (or collect data at all required intervals) at all times the affected source is operating."

5. <u>Specific Recordkeeping Requirements:</u>

a. The permittee shall record for each day, in tons per year, the rolling 365-day emissions of each pollutant from each unit. The emissions of SO_2, NO_X, and CO shall be based upon exhaust flow rate and CEMS data. The emissions of VOC and PM10 shall be based upon emission factors from the most recent performance test.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG043, FLUIDIZED CATALYTIC CRACKING UNIT (FCCU) (Continued)

5. <u>Specific Recordkeeping Requirements (Continued):</u>

b. All data necessary to calculate flue gas flow rate, oxygen and moisture content shall be retained for five years and shall be retrievable and made available to Division personnel upon request.

c. Pursuant to 40 CFR 63 Subpart UUU, Table 6 referenced from 63.1564(c)(1), the permittee shall:
"…(Determine) and (record) each day the average coke burn-off rate (thousands of kilograms per hour) using Equation 1 in § 63.1564 and the hours of operation for each catalyst regenerator; maintaining PM emission rate below 1.0 kg/1,000 kg (1.0 lb/1,000 lbs) of coke burn-off; if applicable, determining and recording each day the rate of combustion of liquid or solid fossil fuels (liters/hour or kilograms/hour) and the hours of operation during which liquid or solid fossil-fuels are combusted in the incinerator-waste heat boiler; if applicable, maintain the PM rate incinerator below 43 g/GJ (0.10 lb/million Btu) of heat input attributable to the solid or liquid fossil fuel; collecting the continuous opacity monitoring data for each catalyst regenerator vent according to § 63.1572; and maintaining each 6-minute average at or below 30 percent except that one 6-minute average during a 1-hour period can exceed 30 percent."

<u>Compliance Demonstration Method</u>:
On December 22, 2004, in accordance with 40 CFR 63.8(f)(4)(i), the permittee requested approval of an alternative monitoring plan (AMP) with the U.S. EPA for the Maximum Achievable Control Technology (MACT) Subpart UUU monitoring requirements that apply to the calculation of the coke burn-off rate in the Fluid Catalytic Cracking Unit (FCCU), Unit 2-109, catalyst regenerator.

d. Pursuant to 40 CFR 63, Subpart UUU, 63.1564(c)(2), the permittee shall maintain records that document the conformance with the procedures included in the operation, maintenance, and monitoring plan for the FCCU.

e. Pursuant to 40 CFR 63 Subpart UUU, Table 13 referenced from 63.1565(c)(1), the permittee shall:
"(Collect) the hourly average CO monitoring data according to § 63.1572; and (maintain) the hourly average CO concentration at or below 500 ppmv (dry basis).

f. Pursuant to 40 CFR 63 Subpart UUU, 63.1572(a) and (d), the permittee shall comply with the following for the required CO CEMs:
"(a)(3) As specified in § 63.8(c)(4)(ii), each continuous emission monitoring system must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG043, FLUIDIZED CATALYTIC CRACKING UNIT (FCCU) (Continued)

5. <u>Specific Recordkeeping Requirements (Continued):</u>

"(a)(4) Data must be reduced as specified in § 63.8(g)(2)."

"(d)(2) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities for purposes of this regulation, including data averages and calculations, for fulfilling a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system."

g. Pursuant to 40 CFR 63 Subpart UUU, 63.1574 the required operation, maintenance and monitoring plan shall meet the following applicable requirements:

"(f) As required by this subpart, you must prepare and implement an operation, maintenance, and monitoring plan for each control system and continuous monitoring system for each affected source.

(2) Each plan must include, at a minimum, the information specified in paragraphs (f)(2)(i) through (xii) of this section.

(i) Parameters to be monitored for each affected source, along with established operating limits.

(ii) Procedures for monitoring emissions and process and control device operating parameters for each affected source.

(iii) Procedures that you will use to determine the coke burn-rate, the volumetric flow rate (if you use process data rather than direct measurement), and the rate of combustion of liquid or solid fossil fuels if you use an incinerator-waste heat boiler to burn the exhaust gases from a catalyst regenerator.

(vii) Procedures you will use to determine the gas flow rate for a catalytic cracking unit if you use the alternative procedure based on airflow rate and temperature.

(viii) Monitoring schedule, including when you will monitor and when you will not monitor an affected source (e.g., during the coke burn-off, regeneration process).

(ix) Quality control plan for each continuous opacity monitoring system and continuous emission monitoring system you use to meet an emission limit in this subpart. This plan must include procedures you will use for calibrations, accuracy audits, and adjustments to the system needed to meet applicable requirements for the system.

(x) Maintenance schedule for each affected source, monitoring system, and control device that is generally consistent with the manufacturer's instructions for routine and long-term maintenance."

Note: (xi) and (xii) are not applicable.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG043, FLUIDIZED CATALYTIC CRACKING UNIT (FCCU) (Continued)

5. <u>Specific Recordkeeping Requirements (Continued):</u>

h. Pursuant to 40 CFR 63 Subpart UUU, 63.1576 the following general record keeping requirements must be met:

"(a) You must keep the records specified in paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or Notification of Compliance Status that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests, performance evaluations, and opacity and visible emission observations as required in § 63.10(b)(2)(viii).

(b) For each continuous emission monitoring system and continuous opacity monitoring system, you must keep the records required in paragraphs (b)(1) through (5) of this section.

(1) Records described in § 63.10(b)(2)(vi) through (xi).

(2) Monitoring data for continuous opacity monitoring systems during a performance evaluation as required in § 63.6(h)(7)(i) and (ii).

(3) Previous (i.e., superceded) versions of the performance evaluation plan as required in § 63.8(d)(3).

(4) Requests for alternatives to the relative accuracy test for continuous emissions monitoring systems as required in § 63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records in § 63.6(h) for visible emission observations.

(d) You must keep records required by Tables 6, 7, 13, and 14 of this subpart (for catalytic cracking units); Tables 20, 21, 27 and 28 of this subpart (for catalytic reforming units); Tables 34 and 35 of this subpart (for sulfur recovery units); and Table 39 of this subpart (for bypass lines) to show continuous compliance with each emission limitation that applies to you.

(e) You must keep a current copy of your operation, maintenance, and monitoring plan onsite and available for inspection. You also must keep records to show continuous compliance with the procedures in your operation, maintenance, and monitoring plan.

(f) You also must keep the records of any changes that affect emission control system performance including, but not limited to, the location at which the vent stream is introduced into the flame zone for a boiler or process heater.

(g) Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG043, FLUIDIZED CATALYTIC CRACKING UNIT (FCCU) (Continued)

5. <u>Specific Recordkeeping Requirements (Continued):</u>

(h) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(i) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records offsite for the remaining 3 years."

6. <u>Specific Reporting Requirements:</u>

a. The permittee shall report periods when the pressure drop across the FCCU baghouse is above 14 psi for more than eight (8) hours in any 24 hour period to the Division within 30 days of the end of each semi-annual period.

b. The permittee shall submit semiannually a report of the 365-day rolling sum emissions of SO_2, NO_X, CO, VOC, and PM10 from the FCCU and the Number 5 Package Boiler.

c. Pursuant to 40 CFR 63 Subpart UUU, 63.1570, the permittee shall comply with the following general reporting requirements:

"(f) You must report each instance in which you did not meet each emission limitation and each operating limit in this subpart that applies to you. This includes periods of startup, shutdown, and malfunction. You also must report each instance in which you did not meet the work practice standards in this subpart that apply to you. These instances are deviations from the emission limitations and work practice standards in this subpart. These deviations must be reported according to the requirements in § 63.1575."

d. Pursuant to 40 CFR 63 Subpart UUU, Table 43 and 63.1575, the permittee shall submit each report that applies as follows:

"(Table 43) If there are no deviations from any emission limitation or work practice standard that applies to you, [the compliance report must contain] *a statement that there were no deviations from the standards during the reporting period and that no continuous opacity monitoring system or continuous emission monitoring system was inoperative, inactive, out-of-control, repaired, or adjusted; and if you have a deviation from any emission limitation or work practice standard during the reporting period, the report must contain the information in § 63.1575(d) or (e)* [The compliance report must be submitted] *Semiannually according to the requirements § 63.1575(b).*

[40 CFR 63.1575].

(b)(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(b)(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG043, FLUIDIZED CATALYTIC CRACKING UNIT (FCCU) (Continued)

6. <u>Specific Reporting Requirements (Continued):</u>

(b)(5) For each affected source that is subject to permitting regulations pursuant to part 70 or 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to §70.6(a)(3)(iii)(A) or § 71.6(a)(3)(iii)(A) of this chapter, you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information required in paragraphs (c)(1) through (4) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If there are no deviations from any emission limitation that applies to you and there are no deviations from the requirements for work practice standards, a statement that there were no deviations from the emission limitations or work practice standards during the reporting period and that no continuous emission monitoring system or continuous opacity monitoring system was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted…

(d) (1) The total operating time of each affected source during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(3) Information on the number, duration, and cause for monitor downtime incidents (including unknown cause, if applicable, other than downtime associated with zero and span and other daily calibration checks).

(e) For each deviation from an emission limitation occurring at an affected source where you are using a continuous opacity monitoring system or a continuous emission monitoring system to comply with the emission limitation, you must include the information in paragraphs (d)(1) through (3) of this section and the information in paragraphs (e)(1) through (13) of this section.

(1) The date and time that each malfunction started and stopped.

(2) The date and time that each continuous opacity monitoring system or continuous emission monitoring system was inoperative, except for zero (low-level) and high-level checks.

(3) The date and time that each continuous opacity monitoring system or continuous emission monitoring system was out-of-control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG043, FLUIDIZED CATALYTIC CRACKING UNIT (FCCU) (Continued)

6. <u>Specific Reporting Requirements (Continued):</u>

(5) A summary of the total duration of the deviation during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging period specified in the regulation for other types of emission limitations), and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period and into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging time specified in the regulation for other types of standards), and the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system as a percent of the total source operating time during that reporting period.

(8) A breakdown of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.

(9) An identification of each HAP that was monitored at the affected source.

(10) A brief description of the process units.

(11) The monitoring equipment manufacturer(s) and model number(s).

(12) The date of the latest certification or audit for the continuous opacity monitoring system or continuous emission monitoring system.

(13) A description of any change in the continuous emission monitoring system or continuous opacity monitoring system, processes, or controls since the last reporting period.

(f) You also must include the information required in paragraphs (f)(1) through (2) of this section in each compliance report, if applicable.

(1) A copy of any performance test done during the reporting period on any affected unit. The report may be included in the next semiannual report. The copy must include a complete report for each test method used for a particular kind of emission point tested. For additional tests performed for a similar emission point using the same method, you must submit the results and any other information required, but a complete test report is not required. A complete test report contains a brief process description; a simplified flow

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Point: FUG043, FLUIDIZED CATALYTIC CRACKING UNIT (FCCU) (Continued)

6. <u>Specific Reporting Requirements (Continued):</u>

diagram showing affected processes, control equipment, and sampling point locations; sampling site data; description of sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; documentation of calculations; and any other information required by the test method.

(2) Any requested change in the applicability of an emission standard (e.g., you want to change from the PM standard to the Ni standard for catalytic cracking units or from the HCl concentration standard to percent reduction for catalytic reforming units) in your periodic report. You must include all information and data necessary to demonstrate compliance with the new emission standard selected and any other associated requirements.

(g) You may submit reports required by other regulations in place of or as part of the compliance report if they contain the required information.

(h) The reporting requirements in paragraphs (h)(1) and (2) of this section apply to startups, shutdowns, and malfunctions:

(1) When actions taken to respond are consistent with the plan, you are not required to report these events in the semiannual compliance report and the reporting requirements in §§ 63.6(e)(3)(iii) and 63.10(d)(5) do not apply.

(2) When actions taken to respond are not consistent with the plan, you must report these events and the response taken in the semiannual compliance report. In this case, the reporting requirements in 63.6(e)(3)(iv) and 63.10(d)(5) do not apply."

7. <u>Specific Control Equipment Operating Conditions:</u>

None

8. <u>Alternate Operating Scenarios</u>:

None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Points: FUG 024, 025, 030, 031- SULFUR RECOVERY PLANT (SRU#1 AND SRU #2)

DESCRIPTION:
The Sulfur Recovery Plant includes two Claus process sulfur recovery units ("SRU," Unit Nos. 2-106 and 2-119) and two associated Shell Claus Off-gas Treatment ("SCOT") units (Unit Nos. 2-107 and 2-120).

Each SRU/SCOT equipment train is equipped with a thermal oxidizer for control of hydrogen sulfide emissions. The thermal oxidizers (Unit Nos. 2-106-B-307 and 2-120-B-2) are fuel gas combustion devices that are also addressed in the "Combustion Devices" section of this permit.

1. **Operating Limitations:**
   a. (State Origin Only) In the event that emissions during unplanned shutdowns, emergency shutdowns, or malfunction of one of the SRUs exceed an applicable standard set forth by the Division, the permittee shall be deemed in violation of such applicable standards unless the requirements of 401 KAR 50:055 Sections 1(2) and 1(3) and the following requirements are met: [ref. O-93-016, Revision 1].
      (1) The permittee shall route that portion of the feed streams to the operational SRU that is necessary to, as expeditiously as practicable, achieve compliance with all applicable standards set forth by the Division and detailed in this permit.
      (2) If the procedure outlined in paragraph (1) does not result in compliance with the applicable standards set forth by the Division and detailed in this permit, the permittee shall reduce crude oil feed rate and/or adjust other operating parameters such that compliance with all applicable standards set forth by the Division and detailed in this permit is achieved as expeditiously as practicable.

   b. (State Origin Only) In the event that emissions during planned/unplanned shutdowns, emergency shutdowns, or malfunctions, such that both SRUs are simultaneously inoperable or not functioning properly, exceed an applicable standard set forth by the Division and detailed in this permit, the permittee shall be deemed in violation of such standards unless the requirements of 401 KAR 50:055 Sections 1(2) and 1(3) and the following requirements are met which may be deemed to constitute good air pollution control practices: [ref. O-93-016, Revision 1].

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Points: FUG 024, 025, 030, 031- SULFUR RECOVERY PLANT (SRU#1 AND SRU #2) (Continued)

1. **Operating Limitations (Continued):**
   c. Pursuant to 40 CFR 63 Subpart UUU, 63.1568(c)(2), SRU #1 and SRU #2 including the No. 1 SRU/SCOT Sulfur pit bypass and SRU No. 1 & 2 Incinerator bypass, shall be operated at all times according to the procedure in the prepared operation, maintenance, and monitoring plan.
   d. Pursuant to 40 CFR 63 Subpart UUU, 63.1570, the permittee shall comply with the following general operating requirements:
   "(c)You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i)…
   (e) During periods of startup, shutdown, and malfunction, you must operate in accordance with your Startup, Shutdown, and Malfunction Plan (SSMP)."
   e. Pursuant to 40 CFR 63 Subpart UUU, Table 36 option 2 referenced from 63.1569(a)(1), for the SRU bypass lines for the incinerator, the permittee shall:
   "Install a car-seal or lock-and-key device placed on the mechanism by which the bypass device flow position is controlled (e.g., valve handle, damper level) when the bypass device is in the closed position such that the bypass line valve cannot be opened without breaking the seal or removing the device."

2. **Emission Limitations:**
   a. Pursuant to 40 CFR 60 Subpart J, 60.104(a)(2)(i), the concentration of sulfur dioxide in the stack gas shall not exceed 250 ppmv (0.025 percent by vol.) at zero percent oxygen on a dry basis, on a rolling twelve (12) hour average.

   Compliance Demonstration Method: A sulfur dioxide continuous emission monitoring system (CEMS) shall be calibrated, maintained and operated to demonstrate compliance with the sulfur dioxide concentration limit.

   b. The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources, to the proposed modification. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon nonattainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 51:052. The "synthetic minor" emission limitations for the sulfur recovery complex are as follows: [VF-02-001 (Revision 3)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Points: FUG 024, 025, 030, 031- SULFUR RECOVERY PLANT (SRU#1 AND SRU #2) (Continued)

Emission Limitation (continued):

Affected Units	Maximum emissions (tons/yr)				
	SO2	NOx	VOC	CO	PM10
No. 1 SRU Thermal Oxidizer	323.0	25.0	1.4	21.0	2.0
No. 2 SRU Thermal Oxidizer					

In addition, sulfur production shall not exceed 628 long tons per day, based on a 365-day rolling average. Also, heat input to each thermal oxidizer shall not exceed 28.6 mmBtu/hr (HHV) based on 365-day rolling average. [State-only Requirements from VF-02-001 (Revision 3)]

Compliance Demonstration Method:
The permittee shall calculate for each day, in tons per year, the rolling 365-day sulfur dioxide emissions based on airflow rate and CEMS data. Compliance with the synthetic minor emission limitations shall be achieved no later than the date of completion of the initial performance test required by 40 CFR 60.8.

c. Pursuant to 40 CFR 63 Subpart UUU, Table 29 referenced from 63.1568(a)(1), the following applies:
"Each new or existing Claus sulfur recovery unit part of a sulfur recovery plant of 20 long tons per day or more and subject to the NSPS for sulfur oxides in 40 CFR 60.104(a)(2).
   (a) 250 ppmv (dry basis) of sulfur dioxide (SO2) at zero percent excess air if you use an oxidation or reduction control system followed by incineration."

Compliance Demonstration Method: The permittee shall demonstrate compliance with this emissions limitation through demonstrating compliance with the emissions limit pursuant to 40 CFR Subpart J, 60.104(a)(2)(i) (401 KAR 60:100).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Points: FUG 024, 025, 030, 031- SULFUR RECOVERY PLANT (SRU#1 AND SRU #2) (Continued)

d. Pursuant to 40 CFR 63 Subpart UUU, 63.1570, the permittee shall comply with the following general emissions limitation requirements:
"(a) You must be in compliance with all of the non-opacity standards in this subpart during the times specified in § 63.6(f)(1).
(g) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with the SSMP. The SSMP must require that good air pollution control practices be used during those periods. The plan must also include elements designed to minimize the frequency of such periods (i.e., root cause analysis). The Administrator will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e) and the contents of the SSMP."

3. <u>Testing Requirements</u>:
None

4. <u>Specific Monitoring Requirements:</u>

a. The permittee shall monitor SO_2 to ensure compliance with the requirements in 40 CFR 60.105(a)(5) as follows:
"(a)(5) For Claus sulfur recovery plants with oxidation control systems or reduction control systems followed by incineration subject to Sec. 60.104(a)(2)(i), an instrument for continuously monitoring and recording the concentration (dry basis, zero percent excess air) of SO_2 emissions into the atmosphere. The monitor shall include an oxygen monitor for correcting the data for excess air.
(i) The span values for this monitor are 500 ppm SO_2 and 10 percent O_2.
(ii) The performance evaluations for this SO_2 monitor under Sec. 60.13(c) shall use Performance Specification 2. Methods 6 and 3 shall be used for conducting the relative accuracy evaluations."

b. The permittee shall comply with all provisions of 40 CFR 60 Appendix F, Quality Assurance Requirements for Gas Continuous Emission Monitoring Systems Used for Compliance Determination, for SRU #1 and SRU #2 sulfur dioxide continuous emission monitors.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Points: FUG 024, 025, 030, 031- SULFUR RECOVERY PLANT (SRU#1 AND SRU #2) (Continued)

4. <u>Specific Monitoring Requirements (Continued)</u>:

c. Pursuant to 40 CFR 63 Subpart UUU, Table 31 as stated in 63.1568 (b)(10, the permitte must comply with the following:
"*[For] each new or existing Claus sulfur recovery unit part to a sulfur recovery plant of 20 long tons per day and subject to the NSPS for sulfur oxides in 40 CFR 60.104(1)(2)…*
You must install and operate… Continuous emission monitoring system to measure and record the hourly average concentration of SO2 (dry basis) at zero percent excess air for each exhaust stack. This system must include an oxygen monitor for correcting the data for excess air."

d. Pursuant to 40 CFR 63 Subpart UUU, Table 39 referenced from 63.1569(c)(1), for the SRU bypass lines for the incinerator, the permittee shall:
"Visually inspecting the seal or closure mechanism at least once every month; and recording whether the bypass line valve is maintained in the closed position and whether flow is present in the line."

e. Pursuant to 40 CFR 63 Subpart UUU, 63.1572, the permittee must operate the continuous parameter monitoring system as described:
"(a)(1) You must install, operate, and maintain each continuous emission monitoring system according to the requirements in Table 40 of this subpart.
[Table 40]
"[For an] *SO2 continuous emission monitoring system for sulfur recovery unit with oxidation control system or reduction control system; this monitor must include an O2 monitor for correcting the data for excess air.* [Must meet these requirements] *Performance specification 2 (40 CFR part 60, appendix B); span value of 500 ppm SO2; use Methods 6 or 6C and 3A or 3B (40 CFR part 60, appendix A) for certifying O2 monitor; and procedure 1 (40 CFR part 60, appendix F) except relative accuracy test audits are required annually instead of quarterly.*
(d)(1) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation (or collect data at all required intervals) at all times the affected source is operating."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Points: FUG 024, 025, 030, 031- SULFUR RECOVERY PLANT (SRU#1 AND SRU #2) (Continued)

5. <u>Specific Recordkeeping Requirements:</u>

a. Pursuant to 40 CFR 63 Subpart UUU, Table 34 as stated in 63.1568(c)(1), the permittee shall:
"(Collect) the hourly average SO2 monitoring data (dry basis, percent excess air) according to § 63.1572; (determine) *and recording each 12-hour rolling average concentration of SO2;* (maintain) *each 12-hour rolling average concentration of SO2 at or below the applicable emission limitation; and* (report) *any 12-hour rolling average concentration of SO2 greater than the applicable emission limitation in the compliance report required by § 63.1575.*

b. Pursuant to 40 CFR 63 Subpart UUU, 63.1570, the permittee shall comply with the following general record keeping requirements:
"(d) You must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3)."

c. Pursuant to 40 CFR 63 Subpart UUU, 63.1572(a) and (d), the permittee shall comply with the following for the required SO_2 CEMs:
"(a)(3) As specified in § 63.8(c)(4)(ii), each continuous emission monitoring system must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
(a)(4) Data must be reduced as specified in § 63.8(g)(2).
(d)(2) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities for purposes of this regulation, including data averages and calculations, for fulfilling a minimum data availability requirement, if applicable. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Points: FUG 024, 025, 030, 031- SULFUR RECOVERY PLANT (SRU#1 AND SRU #2) (Continued)

5. <u>Specific Recordkeeping Requirements (Continued):</u>

d. Pursuant to 40 CFR 63 Subpart UUU, 63.1574 the required operation, maintenance and monitoring plan shall meet the following applicable requirements:

"(f) As required by this subpart, you must prepare and implement an operation, maintenance, and monitoring plan for each control system and continuous monitoring system for each affected source.

(2) Each plan must include, at a minimum, the information specified in paragraphs (f)(2)(i) through (xii) of this section.

(i) Parameters to be monitored for each affected source, along with established operating limits.

(ii) Procedures for monitoring emissions and process and control device operating parameters for each affected source…

(viii) Monitoring schedule, including when you will monitor and when you will not monitor an affected source (e.g., during the coke burn-off, regeneration process)…

(ix) Quality control plan for each continuous opacity monitoring system and continuous emission monitoring system you use to meet an emission limit in this subpart. This plan must include procedures you will use for calibrations, accuracy audits, and adjustments to the system needed to meet applicable requirements for the system.

(x) Maintenance schedule for each affected source, monitoring system, and control device that is generally consistent with the manufacturer's instructions for routine and long-term maintenance."

e. Pursuant to 40 CFR 63 Subpart UUU, 63.1576 the following general record keeping requirements must be met:

"(a) You must keep the records specified in paragraphs (a)(1) through (3) of this section:

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any initial notification or Notification of Compliance Status that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests, performance evaluations, and opacity and visible emission observations as required in § 63.10(b)(2)(viii).

(b) For each continuous emission monitoring system and continuous opacity monitoring system, you must keep the records required in paragraphs (b)(1) through (5) of this section.

(1) Records described in § 63.10(b)(2)(vi) through (xi)…

(3) Previous (i.e., superceded) versions of the performance evaluation plan as required in § 63.8(d)(3).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Points: FUG 024, 025, 030, 031- SULFUR RECOVERY PLANT (SRU#1 AND SRU #2) (Continued)

5. <u>Specific Recordkeeping Requirements (Continued):</u>

(4) Requests for alternatives to the relative accuracy test for continuous emission monitoring systems as required in § 63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period…

(d) You must keep records required by Tables 6, 7, 13, and 14 of this subpart (for catalytic cracking units); Tables 20, 21, 27 and 28 of this subpart (for catalytic reforming units); Tables 34 and 35 of this subpart (for sulfur recovery units); and Table 39 of this subpart (for bypass lines) to show continuous compliance with each emission limitation that applies to you.

(e) You must keep a current copy of your operation, maintenance, and monitoring plan onsite and available for inspection. You also must keep records to show continuous compliance with the procedures in your operation, maintenance, and monitoring plan.

(f) You also must keep the records of any changes that affect emission control system performance including, but not limited to, the location at which the vent stream is introduced into the flame zone for a boiler or process heater.

(g) Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1).

(h) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(i) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records offsite for the remaining 3 years."

6. <u>Specific Reporting Requirements:</u>

a. The permittee shall report excess SO_2 emissions from the SRU #1 and SRU #2 in accordance to the requirements of 40 CFR 60.105(e)(4)(i) as follows:
"(e)(4) Sulfur dioxide from Claus sulfur recovery plants. (i) All 12-hour periods during which the average concentration of SO_2 as measured by the SO_2 continuous monitoring system under Sec. 60.105(a)(5) exceeds 250 ppm (dry basis, zero percent excess air);"

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Points: FUG 024, 025, 030, 031- SULFUR RECOVERY PLANT (SRU#1 AND SRU #2) (Continued)

6. <u>Specific Reporting Requirements (Continued):</u>

b. The permittee shall report SO_2 data unavailability for the SRU #1 and SRU #2 in accordance to the requirements of 40 CFR 60.107(e) as follows:
[40 CFR 60.107]
"(e)For any periods for which sulfur dioxide or oxides emissions data are not available, the permittee 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."

c. The permittee shall submit semiannually a report of the 365-day rolling sum emissions of SO_2, NO_X, CO, VOC, and PM10 from the sulfur recovery plant.

d. Pursuant to 40 CFR 63 Subpart UUU, 63.1570, the permittee shall comply with the following general reporting requirements:
"(f)You must report each instance in which you did not meet each emission limitation and each operating limit in this subpart that applies to you. This includes periods of startup, shutdown, and malfunction. You also must report each instance in which you did not meet the work practice standards in this subpart that apply to you. These instances are deviations from the emission limitations and work practice standards in this subpart. These deviations must be reported according to the requirements in § 63.1575."

e. Pursuant to 40 CFR 63 Subpart UUU, Table 43 and 63.1575, the permittee shall submit each report that applies as follows:
[Table 43]
"If there are no deviations from any emission limitation or work practice standard that applies to you, [the compliance report must contain] *a statement that there were no deviations from the standards during the reporting period and that no continuous opacity monitoring system or continuous emission monitoring system was inoperative, inactive, out-of-control, repaired, or adjusted; and if you have a deviation from any emission limitation or work practice standard during the reporting period, the report must contain the information in § 63.1575(d) or (e) [The compliance report must be submitted] Semiannually according to the requirements § 63.1575(b)."*

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Points: FUG 024, 025, 030, 031- SULFUR RECOVERY PLANT (SRU#1 AND SRU #2) (Continued)

6. <u>Specific Reporting Requirements (Continued):</u>

[40 CFR 63.1575]

"(b)(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(i) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(ii) For each affected source that is subject to permitting regulations pursuant to part 70 or 71 of this chapter, and if the permitting authority has established dates for submitting semiannual reports pursuant to §70.6(a)(3)(iii)(A) or § 71.6(a)(3)(iii)(A) of this chapter, you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section."

"(c) The compliance report must contain the information required in paragraphs (c)(1) through (4) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If there are no deviations from any emission limitation that applies to you and there are no deviations from the requirements for work practice standards, a statement that there were no deviations from the emission limitations or work practice standards during the reporting period and that no continuous emission monitoring system or continuous opacity monitoring system was inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted…

(d) (1) The total operating time of each affected source during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(3) Information on the number, duration, and cause for monitor downtime incidents (including unknown cause, if applicable, other than downtime associated with zero and span and other daily calibration checks).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Points: FUG 024, 025, 030, 031- SULFUR RECOVERY PLANT (SRU#1 AND SRU #2) (Continued)

(e) For each deviation from an emission limitation occurring at an affected source where you are using a continuous opacity monitoring system or a continuous emission monitoring system to comply with the emission limitation, you must include the information in paragraphs (d)(1) through (3) of this section and the information in paragraphs (e)(1) through (13) of this section.

(1) The date and time that each malfunction started and stopped.

(2) The date and time that each continuous opacity monitoring system or continuous emission monitoring system was inoperative, except for zero (low-level) and high-level checks.

(3) The date and time that each continuous opacity monitoring system or continuous emission monitoring system was out-of-control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging period specified in the regulation for other types of emission limitations), and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period and into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging time specified in the regulation for other types of standards), and the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system as a percent of the total source operating time during that reporting period.

(8) A breakdown of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes.

(9) An identification of each HAP that was monitored at the affected source.

(10) A brief description of the process units.

(11) The monitoring equipment manufacturer(s) and model number(s).

(12) The date of the latest certification or audit for the continuous opacity monitoring system or continuous emission monitoring system.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Points: FUG 024, 025, 030, 031- SULFUR RECOVERY PLANT (SRU#1 AND SRU #2) (Continued)

6. <u>Specific Reporting Requirements (Continued):</u>

(13) A description of any change in the continuous emission monitoring system or continuous opacity monitoring system, processes, or controls since the last reporting period.

(f) You also must include the information required in paragraphs (f)(1) through (2) of this section in each compliance report, if applicable.

(1) A copy of any performance test done during the reporting period on any affected unit. The report may be included in the next semiannual report. The copy must include a complete report for each test method used for a particular kind of emission point tested. For additional tests performed for a similar emission point using the same method, you must submit the results and any other information required, but a complete test report is not required. A complete test report contains a brief process description; a simplified flow diagram showing affected processes, control equipment, and sampling point locations; sampling site data; description of sampling and analysis procedures and any modifications to standard procedures; quality assurance procedures; record of operating conditions during the test; record of preparation of standards; record of calibrations; raw data sheets for field sampling; raw data sheets for field and laboratory analyses; documentation of calculations; and any other information required by the test method.

(2) Any requested change in the applicability of an emission standard (e.g., you want to change from the PM standard to the Ni standard for catalytic cracking units or from the HCl concentration standard to percent reduction for catalytic reforming units) in your periodic report. You must include all information and data necessary to demonstrate compliance with the new emission standard selected and any other associated requirements.

(g) You may submit reports required by other regulations in place of or as part of the compliance report if they contain the required information.

(h) The reporting requirements in paragraphs (h)(1) and (2) of this section apply to startups, shutdowns, and malfunctions:

(1) When actions taken to respond are consistent with the plan, you are not required to report these events in the semiannual compliance report and the reporting requirements in §§ 63.6(e)(3)(iii) and 63.10(d)(5) do not apply.

(2) When actions taken to respond are not consistent with the plan, you must report these events and the response taken in the semiannual compliance report. In this case, the reporting requirements in §§ 63.6(e)(3)(iv) and 63.10(d)(5) do not apply."

7. <u>Specific Control Equipment Operating Conditions:</u>

None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PROCESS UNITS (Continued):

Emission Points: FUG 024, 025, 030, 031- SULFUR RECOVERY PLANT (SRU#1 AND SRU #2) (Continued)

8. <u>Alternate Operating Scenarios</u>:
None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

STORAGE VESSELS:

Storage Tank Description Table

Emission Unit	Refinery ID	Product Stored	Contents Description	Insignificant	Wastewater	Tri-State	Nominal Capacity (gal)	Tank Type	Date Comm-enced
T002	1-7-TK-2	NEMS	Organic				504,000	CONE	1989
T003	1-7-TK-3	LOBS	Organic				40,320	CONE	1970
T004	1-7-TK-4	LOBS	Organic				40,320	CONE	1970
T005	1-7-TK-5	LOBS	Organic				40,320	CONE	1970
T006	1-7-TK-6	LOBS	Organic				40,320	CONE	1970
T007	1-7-TK-7	CUMENE	HON and Organic				210,000	IFR	1968
T008	1-7-TK-8	CUMENE	HON and Organic				210,000	IFR	1968
T009	1-7-TK-9	CUMENE	HON and Organic				2,268,000	IFR	1968
T016	1-6-TK-16	ASPHALT	Asphalt				3,397,800	CONE	1972
T017	1-6-TK-17	ASPHALT	Asphalt				1,015,140	CONE	1965
T018	1-7-TK-18	CUMENE	HON and Organic				420,000	IFR	1997
T019	1-6-TK-19	PITCH	Organic				40,320	CONE	1997
T021	1-7-TK-21	CTLO	HON and Organic				2,520,000	IFR	1978
T022	1-7-TK-22	CTLO	HON and Organic				1,806,000	IFR	1980
T023	1-6-TK-23	CAUSTIC	Caustic	X			2,100	CONE	1989
T029	1-7-TK-29	out of service	Organic				92,400	CONE	1992
T030	1-6-TK-30	ASPHALT	Asphalt				210,000	CONE	1992
T031	1-6-TK-31	ASPHALT	Asphalt				4,044,600	CONE	1973
T032	1-7-TK-32	Mineral Spirits	Organic				504,000	CONE	1995
T034	1-7-TK-34	VM&P	Organic				504,000	IFR	1994
T035	1-6-TK-35	ASPHALT	Asphalt				147,000	CONE	1938
T041	1-7-TK-41	Gas Additive	Organic				23,268	CONE	1956
T043	1-7-TK-43	VM&P	Organic				504,000	IFR	1993
T046	1-7-TK-46	90 SOLVENT	Organic				74,970	CONE	1995
T047	1-7-TK-47	90 SOLVENT	Organic				74,970	CONE	1995
T048	1-7-TK-48	RERUN	Benzene Waste		X		146,370	IFR	1994
T049	1-7-TK-49	RERUN	Benzene Waste		X		146,370	IFR	1994
T050	1-7-TK-50	Solvent 140	Organic				46,200	CONE	1995
T051	1-7-TK-51	Solvent 140	Organic				46,200	CONE	1995
T055	1-7-TK-55	RERUN	Benzene Waste		X		146,370	IFR	1992
T056	1-7-TK-56	RERUN	Organic				146,370	CONE	1990
T057	1-6-TK-57	Idled	Organic				379,092	CONE	1966
T060	1-6-TK-60	PVO	Organic				211,344	CONE	1990
T061	1-6-TK-61	Pitch Charge	Organic				1,099,854	CONE	1997
T064	1-7-TK-64	Pchem Charge/Bz	Bz, HON, Organic				504,000	IFR	1995
T065	1-7-TK-65	NEMS	Organic				504,000	CONE	2000
T067	1-6-TK-67	PITCH	Organic				253,806	CONE	1998
T069	1-32-TK-69	PITCH	Organic				210,000	CONE	1965
T070	1-32-TK-70	PITCH	Organic				210,000	CONE	1965
T071	1-32-TK-71	PITCH	Organic				210,000	CONE	1957
T072	1-6-TK-72	ASPHALT	Asphalt				3,397,800	CONE	1969
T074	1-7-TK-74	offtest cumene	HON and Organic				613,200	IFR	1968
T076	1-7-TK-76	Solvent 140	Organic				315,000	CONE	1979
T077	1-7-TK-77	Turbine Fuel	Organic				315,000	CONE	1979

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

STORAGE VESSELS (Continued):

Storage Tank Description Table (Continued)

Emission Unit	Refinery ID	Product Stored	Contents Description	Insignificant	Wastewater	Tri-State	Nominal Capacity (gal)	Tank Type	Date Comm-enced
T078	1-7-TK-78	out of service	Organic				252,000	CONE	1979
T079	1-6-TK-79	Heavy Fuel Oil	Organic				210,000	CONE	1998
T081	1-6-TK-81	Vacuum Bottoms	Organic				3,289,062	CONE	1998
T082	1-6-TK-82	Pitch Flush Oil	Organic				26,880	CONE	1943
T083	1-36-TK-83	SLACK WAX	Organic				56,280	CONE	1943
T084	1-36-TK-84	SLACK WAX	Organic				56,280	CONE	1943
T091	1-35-TK-91	Propylene/Propane	Organic	X			29,988	BULLET	1968
T092	1-35-TK-92	Propylene/Propane	Organic	X			29,988	BULLET	1968
T100	1-7-TK-100	BENZENE	Bz, HON, Organic				504,000	IFR	1989
T103	1-7-TK-103	XYLENE	HON and Organic				514,374	IFR	1974
T106	1-6-TK-106	FUEL OIL	Organic				210,000	CONE	1969
T108	1-6-TK-108	Slurry Oil	Organic				3,864,000	CONE	2001
T115	1-7-TK-115	BENZENE	Bz, HON, Organic				1,419,600	IFR	1998
T116	1-7-TK-116	BENZENE	Bz, HON, Organic				1,419,600	IFR	1996
T118	1-6-TK-118	ASPHALT	Asphalt				2,786,280	CONE	1940
T119	1-6-TK-119	ASPHALT	Asphalt				2,390,598	CONE	1941
T125	1-602-TK-125	PVO	Organic				210,000	CONE	1943
T138	1-7-TK-138	DNO	HON and Organic				38,178	CONE	1994
T139	1-7-TK-139	DNO	HON and Organic				38,178	CONE	1994
T143	1-7-TK-143	LOBS	Organic				145,068	CONE	1998
T144	1-7-TK-144	LOBS	Organic				145,068	CONE	1998
T145	1-7-TK-145	MS/KWIK DRY	Organic				143,052	CONE	1998
T146	1-7-TK-146	MS/KWIK DRY	Organic				143,052	CONE	1998
T147	1-7-TK-147	Lacolene	Organic				296,100	IFR	2000
T148	1-7-TK-148	Lacolene	Organic				296,100	IFR	2000
T149	1-6-TK-149	Idled	Water	X			21,000	CONE	1950
T150	1-7-TK-150	Solvent 140	Organic				296,100	CONE	2000
T151	1-7-TK-151	Solvent 140	Organic				296,100	CONE	2000
T152	1-6-TK-152	Heavy fuel oil	Organic				2,284,380	CONE	1952
T153	1-6-TK-153	Heavy fuel oil	Organic				2,284,380	CONE	1952
T160	1-7-TK-160	XYLENE	HON and Organic				536,508	EFR	1957
T161	1-7-TK-161	Kwik Dri	Organic				509,376	CONE	1957
T162	1-7-TK-162	Kwik Dri	Organic				509,376	CONE	1957
T163	1-7-TK-163	Mineral Spirits	Organic				509,376	CONE	1957
T169	1-7-TK-169	TOLUENE	HON and Organic				501,060	IFR	1959
T170	1-7-TK-170	TOLUENE	HON and Organic				501,060	IFR	1959
T172	1-6-TK-172	LS Slurry Oil	Organic				1,129,800	CONE	1989
T175	1-7-TK-175	325 WFO	Organic				506,940	CONE	1960
T176	1-7-TK-176	325 WFO	Organic				506,940	CONE	1960
T177	1-7-TK-177	SDA 325 Extract	Organic				506,940	CONE	1960
T178	1-7-TK-178	100 WFO	Organic				506,940	CONE	1960
T179	1-7-TK-179	100 WFO	Organic				506,940	CONE	1960
T180	1-7-TK-180	SDA 325 Extract	Organic				506,940	CONE	1960

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

STORAGE VESSELS (Continued):

Storage Tank Description Table (Continued)

Emission Unit	Refinery ID	Product Stored	Contents Description	Insignificant	Wastewater	Tri-State	Nominal Capacity (gal)	Tank Type	Date Comm-enced
T181	1-7-TK-181	ALIPHATIC CHG	Organic				1,055,040	IFR	1961
T182	1-7-TK-182	REFORMER CHG	Organic				1,029,000	EFR	1961
T183	1-7-TK-183	REFORMER CHG	Organic				1,869,000	EFR	1960
T184	1-7-TK-184	REFORMER CHG	Organic				1,869,000	EFR	1960
T185	1-7-TK-185	JET FUEL	Organic				541,380	CONE	1961
T192	1-7-TK-192	DNO	HON and Organic				26,460	DOME	1990
T194	1-7-TK-194	Pchem Charge	Bz, HON, Organic				541,380	IFR	1961
T309	2-106-TK-309	Sulfur	Sulfur	X			38,850	Concrete Pi	1975
T310	2-106-TK-310	Sulfur	Sulfur	X			87,990	Concrete Pi	1992
T355	2-606-TK-355	CRUDE OIL	Organic				6,341,790	EFR	1996
T358	2-606-TK-358	CRUDE OIL	Organic				6,341,790	IFR	1965
T361	1-7-TK-361	KEROSENE	Organic				1,505,994	CONE	1940
T362	1-7-TK-362	CRUDE OIL	Organic				2,310,000	IFR	1938
T363	1-7-TK-363	ETHANOL	Organic				2,310,000	IFR	2007
T401	2-601-TK-401	CLARIFIED H2O	Water	X			50,400	CONE	1975
T402	2-601-TK-402	H2O—BRINE	Water	X			32,970	CONE	1975
T403	2-601-TK-403	H2O—SOFT	Water	X			65,100	CONE	1975
T404	2-607-TK-404	H2O—WASTE	Water	X			142,800	OPEN	1975
T469	2-106-TK-469	Empty - H-Coal	Empty	X			252,000	DOME	1977
T470	2-106-TK-470	Empty - H-Coal	Empty	X			252,000	DOME	1977
T583	2-24-TK-583	CAUSTIC	Caustic	X			0		
T597	2-24-TK-597	CAUSTIC	Caustic	X			0		
T701	2-606-TK-701	Reduced crude	Organic				2,284,380	CONE	1942
T702	2-606-TK-702	Reduced crude	Organic				2,284,380	CONE	1942
T703	2-106-TK-703	H2O—FW SURGE	Water		X		1,827,000	DOME	2002
T704	2-106-TK-704	H2O—FW SURGE	Water		X		1,827,000	DOME	1981
T718	2-606-TK-718	DAF Sludge	DAF Sludge		X		420,000	EFR	1970
T727	2-606-TK-727	HCC	Organic				1,008,000	IFR	1971
T729	2-606-TK-729	WWT Surge	Wastewater		X		1,848,000	EFR	1972
T733	2-606-TK-733	Gas Oil	Organic				3,412,290	CONE	1942
T734	2-606-TK-734	Gas Component	Organic				3,412,290	EFR	1942

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

STORAGE VESSELS (Continued):

Storage Tank Description Table (Continued)

Emission Unit	Refinery ID	Product Stored	Contents Description	Insignificant	Wastewater	Tri-State	Nominal Capacity (gal)	Tank Type	Date Comm-enced
T746	2-702-TK-746	Idled	Organic				9,954	CONE	1945
T747	2-606-TK-747	BUTANE	Organic	X			213,444	SPHERE	1945
T748	2-606-TK-748	BUTANE	Organic	X			213,444	SPHERE	1945
T749	2-606-TK-749	(NC4)	Organic	X			42,000	BULLET	1945
T750	2-606-TK-750	(NC4)	Organic	X			42,000	BULLET	1945
T757	2-606-TK-757	325 Neutral	Organic				210,000	CONE	1948
T758	2-606-TK-758	325 Neutral	Organic				210,000	CONE	1948
T765	2-606-TK-765	Gas Component	Organic				840,000	IFR	1985
T766	2-606-TK-766	Gas Component	Organic				840,000	IFR	1985
T768	1-7-TK-768	Ethanol	Organic				29,904	CONE	1953
T783	2-606-TK-783	Gas Component	Organic				1,785,000	EFR	1965
T790	2-606-TK-790	325 Neutral	Organic				1,015,140	CONE	1965
T791	2-606-TK-791	325 Neutral	Organic				1,015,140	CONE	1965
T792	2-606-TK-792	100 Neutral	Organic				1,015,140	CONE	1965
T793	2-606-TK-793	100 Neutral	Organic				1,015,140	CONE	1965
T797	2-24-TK-797	CAUSTIC	Caustic	X			21,000	CONE	1966
T800		Ethanol	Organic				29,904	CONE	1998
T801		Ethanol	Organic				29,904	CONE	1998
T803	2-606-TK-803	CRUDE OIL	Organic				10,080,000	EFR	1974
T804	2-606-TK-804	CRUDE OIL	Organic				10,080,000	EFR	1974
T805	2-31-TK-805	SDA CHARGE	Organic				1,382,010	CONE	1970
T806	2-31-TK-806	Vacuum Bottoms	Organic				1,382,010	CONE	1970
T807	2-31-TK-807	DAO	Organic				504,000	CONE	1970
T808	2-31-TK-808	SDA Pitch	Organic				504,000	CONE	1970
T809	2-108-TK-809	SDA FLUSH OIL	Organic				211,680	CONE	1970
T811	2-606-TK-811	Gas Component	Organic				1,785,000	IFR	1972
T812	2-606-TK-812	Gas Component	Organic				1,785,000	EFR	1972
T813	2-606-TK-813	DAO	Organic				210,000	CONE	1973
T814	2-106-TK-814	Lean MDEA	MDEA	X			210,000	CONE	1976
T817	2-606-TK-817	Reformate	Organic				420,000	IFR	1975
T819	2-606-TK-819	100 Neutral Rundown	Organic				630,000	CONE	1975
T820	2-606-TK-820	100 Neutral Rundown	Organic				630,000	CONE	1975
T821	2-606-TK-821	FCC CHG (Alkylate after mod.)	Organic				2,285,000	CONE (IFR after mod.)	1976 (2008 prop. Mod.)
T822	2-607-TK-822	WWT Surge	WWT Surge		X		6,300,000	EFR	1978
T823	2-607-TK-823	WWT Surge	WWT Surge		X		5,418,000	EFR	2004
T824	1-7-TK-824	LS DIESEL	Organic				1,008,000	CONE	1976
T825	1-7-TK-825	LS DIESEL	Organic				1,008,000	CONE	1976
T826	1-6-TK-826	SLACK WAX	Organic				1,008,000	CONE	1976
T827	1-6-TK-827	SLACK WAX	Organic				1,008,000	CONE	1976
T828	1-6-TK-828	SLACK WAX	Organic				1,008,000	CONE	1976
T829	2-606-TK-829	FW surge	FW Surge		X		252,000	DOME	1981
T830	1-7-TK-830	HS DIESEL	Organic				1,008,000	IFR	1975
T831	1-7-TK-831	HS DIESEL	Organic				1,008,000	CONE	2004
T832	2-606-TK-832	HS DIESEL	Organic				1,050,000	CONE	1976
T833	1-6-TK-833	ASPHALT	Asphalt				4,044,600	CONE	1977

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

STORAGE VESSELS (Continued):

Storage Tank Description Table (Continued)

Emission Unit	Refinery ID	Product Stored	Contents Description	Insignificant	Wastewater	Tri-State	Nominal Capacity (gal)	Tank Type	Date Comm-enced
T834	2-24-TK-834	diesel additive	Organic				10,500	CONE	1978
T835	2-24-TK-835	diesel additive	Organic				10,500	CONE	1977
T836	2-606-TK-836	Butane	Organic	X			420,000	SPHERE	1978
T838	2-606-TK-838	CRUDE OIL	Organic				6,300,000	EFR	1975
T839	2-606-TK-839	CRUDE OIL	Organic				6,300,000	EFR	1976
T840	2-606-TK-840	ISOBUTANE	Organic				420,000	SPHERE	1986
T841	2-606-TK-841	Waxy dist.	Organic				4,032,000	CONE	1989
T842	2-606-TK-842	Waxy dist.	Organic				4,032,000	CONE	1987
T843	2-23-TK-843	CRUDE OIL	Organic				6,300,000	EFR	1978
T844	1-6-TK-844	ASPHALT	Asphalt				4,032,000	CONE	1978
T845	2-606-TK-845	Bulk Dist. FCC	Organic				3,397,800	CONE	1979
T847	1-7-TK-847	Gasoline	Organic				2,310,000	IFR	1979
T848	1-7-TK-848	Gasoline	Organic				2,310,000	IFR	1979
T849	1-6-TK-849	ASPHALT	Asphalt				4,032,000	CONE	1980
T850	1-32-TK-850	PITCH	Organic				383,880	CONE	1980
T851	1-32-TK-851	out of service	Organic				383,880	CONE	1980
T852	1-7-TK-852	Gas Additive	Organic				15,750	CONE	1960
T853	2-606-TK-853	RCC WW	RCC WW	X	X		588,000	CONE	1982
T854	2-606-TK-854	Lube/Bulk Distillate	Organic				1,176,000	CONE	1991
T855	2-606-TK-855	Gas Oil	Organic				3,397,800	CONE	1987
T856	2-606-TK-856	Gas Component	Organic				1,785,000	IFR	1988
T857	2-606-TK-857	MOLTEN SULFUR	Sulfur	X			300,300	CONE	1989
T858	2-604-TK-858	WWT Surge	WWT Surge		X		6,667,500	EFR	1990
T859	2-606-TK-859	Gas Component	Organic				1,802,220	IFR	1990
T860	2-606-TK-860	Wastewater	Organic		X		1,260,000	IFR	1989
T861	2-606-TK-861	Toluene	Organic				420,000	IFR	1989
T862	2-606-TK-862	Propane	Organic	X			63,000	BULLET	1978
T863	2-606-TK-863	Propane	Organic	X			63,000	BULLET	1978
T864	2-606-TK-864	Propane	Organic	X			63,000	BULLET	1989
T865	2-606-TK-865	Propane	Organic	X			63,000	BULLET	1989
T866	2-606-TK-866	Propane	Organic	X			63,000	BULLET	1989
T867	2-106-TK-867	MDEA	MDEA	X			210,000	CONE	1990
T868	2-66-TK-868	Gasoline	Gasoline Refueling	X			2,016	HORIZONT	1988
T869	2-66-TK-869	DIESEL	Diesel Refueling	X			2,016	HORIZONT	1988
T871	1-17-TK-871	PITCH	Organic				859,950	CONE	1990
T872	1-17-TK-872	PITCH	Organic				859,950	CONE	1990
T873	1-7-TK-873	Gasoline	Organic				2,037,000	IFR	1990
T874	1-7-TK-874	Gasoline	Organic				2,037,000	IFR	1990
T875	1-7-TK-875	Gasoline	Organic				2,037,000	IFR	1990
T877	2-24-TK-877	CAUSTIC	Caustic	X			40,320	CONE	1990
T878	2-24-TK-878	CAUSTIC	Caustic	X			40,320	CONE	1990
T879	2-24TK-879	CAUSTIC	Caustic	X			40,320	CONE	1990
T882	1-38-TK-882	Furfural slop	Organic				212,604	CONE	1992
T883	2-606-TK-883	Gas Component	Organic				1,055,040	IFR	1991
T884	2-606-TK-884	Gas Component	Organic				1,055,040	IFR	1991
T885	2-606-TK-885	KEROSENE	Organic				2,520,000	IFR	1992
T886	2-606-TK-886	DIESEL	Organic				4,200,000	IFR	1992
T887	2-606-TK-887	DIESEL	Organic				4,200,000	IFR	1992

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

STORAGE VESSELS (Continued):

Storage Tank Description Table (Continued)

Emission Unit	Refinery ID	Product Stored	Contents Description	Insignificant	Wastewater	Tri-State	Nominal Capacity (gal)	Tank Type	Date Comm-enced
T888	2-606-TK-888	DIESEL	Organic				4,200,000	IFR	1992
T889	2-606-TK-889	DDS charge	Organic				4,200,000	IFR	1992
T890	2-40-TK-890	WWT BRU Charge	WWT BRU Charge		X		2,520,000	IFR	1992
T893	2-31-TK-893	325 extract	Organic				1,155,000	CONE	1994
T894	2-606-TK-894	Slop Oil	Slop Oil		X		1,092,000	IFR	1994
T895	2-606-TK-895	CCR CHARGE	Organic				1,092,000	IFR	1994
T896	2-121-TK-896	LUBE OIL	Lube Oil	X			1,008	HORIZONT	1993
T897	2-121-TK-897	Antifoulant	Antifoulant	X			2,016	HORIZONT	1993
T898	2-606-TK-898	BUTANE	Organic	X			24,864	BULLET	1994
T899	2-613-TK-899	H2O	Water	X			420,000	OPEN	1995
T902	2-606-TK-902	Natural Gasoline	Organic				1,108,632	IFR	1997
T906	2-606-TK-906	Gas Component	Organic				1,108,632	IFR	1998
T910	2-606-TK-910	Light Cycle Oil	Organic				4,314,800	IFR	2003
T914	2-15-TK-914	Organic	Organic				2,000	Horizontal	2005
T915	2-606-TK-915	Gas Oil	Organic				8,400,000	Cone	2008
T916	2-606-TK-916	Natural Gasoline	Organic				8,400,000	Cone	2008
T994	2-606-TK-994	Gas Additive	Organic				19,992	CONE	1978
	2-607-DD-1	WWT	WWT		X		4,319,994	OPEN	1974
	2-607-DD-16	WWT-Aerator	WWT-Aerator		X		0	OPEN	2003
	2-607-DD-17	WWT-Aerator	WWT-Aerator		X		0	OPEN	2003
	2-607-DD-18	WWT-Clarifier	WWT-Clarifier		X		0	OPEN	2003
	2-607-DD-19	WWT-Clarifier	WWT-Clarifier		X		0	OPEN	2003
	2-607-DD-20	WWT-Biosolids	WWT-Biosolids		X		0	OPEN	
	2-613-F-77	WATER	Water	X	X		783,300	OPEN	1975
	2-613-F-78	WATER	Water	X	X		783,300	OPEN	1975

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

STORAGE VESSELS (Continued):

Storage Tank Applicable Regulations Table

Emission Unit	Refinery ID	40 CFR 60 Subpart UU	40 CFR 61 Subpart Y	401 KAR 59:050				40 CFR 60 Subpart Kb		40 CFR 60 Subpart K			40 CFR 60 Subpart Ka			401 KAR 61:050				40 CFR 63 Subpart G		40 CFR 63 Subpart CC		
				tvp <1.5	Fixed	IFR	EFR	< tvp	IFR	tvp < 1.5	IFR	EFR	tvp < 1.5	IFR	EFR	tvp <1.5	Fixed	IFR	EFR	G1 IFR	G2	G1 IFR	G1 EFR	G2
T002	1-7-TK-2							X																S
T003	1-7-TK-3																X							X
T004	1-7-TK-4																X							X
T005	1-7-TK-5																X							X
T006	1-7-TK-6																X							X
T007	1-7-TK-7																	X			X			E
T008	1-7-TK-8																	X			X			E
T009	1-7-TK-9																	X			X			E
T016	1-6-TK-16																X							X
T017	1-6-TK-17																X							X
T018	1-7-TK-18							S													X			E
T019	1-6-TK-19							X																S
T021	1-7-TK-21					C								C						X				E
T022	1-7-TK-22					C								C						X				E
T023	1-6-TK-23																							
T029	1-7-TK-29							X																S
T030	1-6-TK-30	X						X																S
T031	1-6-TK-31			X						S														X
T032	1-7-TK-32							X																S
T034	1-7-TK-34								X															S
T035	1-6-TK-35															X								X
T041	1-7-TK-41															X								X
T043	1-7-TK-43								X															S
T046	1-7-TK-46							X																S
T047	1-7-TK-47							X																S
T048	1-7-TK-48																							
T049	1-7-TK-49																							
T050	1-7-TK-50							X																S
T051	1-7-TK-51							X																S
T055	1-7-TK-55																							
T056	1-7-TK-56							X																S
T057	1-6-TK-57															X								X
T060	1-6-TK-60							X																S
T061	1-6-TK-61							X																S
T064	1-7-TK-64		S						S											X				E
T065	1-7-TK-65							X																S
T067	1-6-TK-67							X																S
T069	1-32-TK-69															X								X
T070	1-32-TK-70															X								X
T071	1-32-TK-71															X								X
T072	1-6-TK-72															X								X
T074	1-7-TK-74																	X			X			E
T076	1-7-TK-76			X																				X
T077	1-7-TK-77			X																				X
T078	1-7-TK-78			X																				X
T079	1-6-TK-79							X																S
T081	1-6-TK-81							X																S
T082	1-6-TK-82															X								X
T083	1-36-TK-83															X								X
T084	1-36-TK-84															X								X
T091	1-35-TK-91																							
T092	1-35-TK-92																							
T100	1-7-TK-100		S						S											X				E
T103	1-7-TK-103			X						C											X			E
T106	1-6-TK-106															X								X
T108	1-6-TK-108							X																S
T115	1-7-TK-115		S						S											X				E
T116	1-7-TK-116		S						S											X				E
T118	1-6-TK-118															X								X
T119	1-6-TK-119															X								X
T125	1-602-TK-125															X								X
T138	1-7-TK-138							S													X			E
T139	1-7-TK-139							S													X			E

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

STORAGE VESSELS (Continued):

Storage Tank Applicable Regulations Table (Continued)

Emission Unit	Refinery ID	40 CFR 60 Subpart UU	40 CFR 61 Subpart Y	401 KAR 59:050				40 CFR 60 Subpart Kb		40 CFR 60 Subpart K			40 CFR 60 Subpart Ka			401 KAR 61:050				40 CFR 63 Subpart G		40 CFR 63 Subpart CC		
				tvp <1.5	Fixed	IFR	EFR	< tvp	IFR	tvp < 1.5	IFR	EFR	tvp < 1.5	IFR	EFR	tvp <1.5	Fixed	IFR	EFR	G1 IFR	G2	G1 IFR	G1 EFR	G2
T143	1-7-TK-143							X																S
T144	1-7-TK-144							X																S
T145	1-7-TK-145							X																S
T146	1-7-TK-146							X																S
T147	1-7-TK-147								X															S
T148	1-7-TK-148								X															S
T149	1-6-TK-149																							
T150	1-7-TK-150							X																S
T151	1-7-TK-151							X																S
T152	1-6-TK-152															X								X
T153	1-6-TK-153															X								X
T160	1-7-TK-160															X					X			E
T161	1-7-TK-161															X								X
T162	1-7-TK-162															X								X
T163	1-7-TK-163															X								X
T169	1-7-TK-169																	C		X				E
T170	1-7-TK-170																	C		X				E
T172	1-6-TK-172							X																S
T175	1-7-TK-175															X								X
T176	1-7-TK-176															X								X
T177	1-7-TK-177															X								X
T178	1-7-TK-178															X								X
T179	1-7-TK-179															X								X
T180	1-7-TK-180															X								X
T181	1-7-TK-181															X								X
T182	1-7-TK-182																		C				X	
T183	1-7-TK-183																		C				X	
T184	1-7-TK-184																		C				X	
T185	1-7-TK-185															X								X
T192	1-7-TK-192							S													X			E
T194	1-7-TK-194		S															C		X				E
T309	2-106-TK-309																							
T310	2-106-TK-310																							
T355	2-606-TK-355								S														X	
T358	2-606-TK-358																	C				X		
T361	1-7-TK-361															X								X
T362	1-7-TK-362																	C				X		
T363	1-7-TK-363								X															
T401	2-601-TK-401																							
T402	2-601-TK-402																							
T403	2-601-TK-403																							
T404	2-607-TK-404																							
T469	2-106-TK-469																							
T470	2-106-TK-470																							
T583	2-24-TK-583																							
T597	2-24-TK-597																							
T701	2-606-TK-701															X								X
T702	2-606-TK-702															X								X
T703	2-106-TK-703																							
T704	2-106-TK-704																							
T718	2-606-TK-718																							
T727	2-606-TK-727																	C				X		
T729	2-606-TK-729																							
T733	2-606-TK-733															X								X
T734	2-606-TK-734																		C				X	

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

STORAGE VESSELS (Continued):

Storage Tank Applicable Regulations Table (Continued)

Emission Unit	Refinery ID	40 CFR 60 Subpart UU	40 CFR 61 Subpart Y	401 KAR 59:050				40 CFR 60 Subpart Kb		40 CFR 60 Subpart K			40 CFR 60 Subpart Ka			401 KAR 61:050				40 CFR 63 Subpart G		40 CFR 63 Subpart CC		
				tvp <1.5	Fixed	IFR	EFR	< tvp	IFR	tvp < 1.5	IFR	EFR	tvp < 1.5	IFR	EFR	tvp <1.5	Fixed	IFR	EFR	G1 IFR	G2	G1 IFR	G1 EFR	G2
T746	2-702-TK-746																X							
T747	2-606-TK-747																							
T748	2-606-TK-748																							
T749	2-606-TK-749																							
T750	2-606-TK-750																							
T757	2-606-TK-757															X								X
T758	2-606-TK-758															X								X
T765	2-606-TK-765								X													S		
T766	2-606-TK-766								X													S		
T768	1-7-TK-768															X								X
T783	2-606-TK-783																		C				X	
T790	2-606-TK-790															X								X
T791	2-606-TK-791															X								X
T792	2-606-TK-792															X								X
T793	2-606-TK-793															X								X
T797	2-24-TK-797																							
T800								X																S
T801								X																S
T803	2-606-TK-803						C					S											X	
T804	2-606-TK-804						C					S											X	
T805	2-31-TK-805															X								X
T806	2-31-TK-806															X								X
T807	2-31-TK-807															X								X
T808	2-31-TK-808															X								X
T809	2-108-TK-809															X								X
T811	2-606-TK-811					C																X		
T812	2-606-TK-812						C																X	
T813	2-606-TK-813			X						S														X
T814	2-106-TK-814																							
T817	2-606-TK-817					C					S											X		
T819	2-606-TK-819			X						S														X
T820	2-606-TK-820			X						S														X
T821	2-606-TK-821					X					S											X		
T822	2-607-TK-822																							
T823	2-607-TK-823																							
T824	1-7-TK-824			X						S														X
T825	1-7-TK-825			X						S														X
T826	1-6-TK-826			X						S														X
T827	1-6-TK-827			X						S														X
T828	1-6-TK-828			X						S														X
T829	2-606-TK-829																							
T830	1-7-TK-830			X						S														X
T831	1-7-TK-831							X																S
T832	2-606-TK-832			X						S														X
T833	1-6-TK-833			X						S														X
T834	2-24-TK-834			X																				X
T835	2-24-TK-835			X																				X
T836	2-606-TK-836																							
T838	2-606-TK-838						C					S											X	
T839	2-606-TK-839						C					S											X	
T840	2-606-TK-840																							
T841	2-606-TK-841							X																S
T842	2-606-TK-842							X																S
T843	2-23-TK-843						C					S											X	
T844	1-6-TK-844			X						S														X
T845	2-606-TK-845			X						S														X
T847	1-7-TK-847					C								S								X		
T848	1-7-TK-848					C								S								X		
T849	1-6-TK-849			X									S											X
T850	1-32-TK-850			X									S											X
T851	1-32-TK-851			X									S											X
T852	1-7-TK-852															X								X
T853	2-606-TK-853																							
T854	2-606-TK-854							X																S

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

STORAGE VESSELS (Continued):

Storage Tank Applicable Regulations Table (Continued)

Emission Unit	Refinery ID	40 CFR 60 Subpart UU	40 CFR 61 Subpart Y	401 KAR 59:050				40 CFR 60 Subpart Kb		40 CFR 60 Subpart K			40 CFR 60 Subpart Ka			401 KAR 61:050				40 CFR 63 Subpart G		40 CFR 63 Subpart CC		
				tvp <1.5	Fixed	IFR	EFR	< tvp	IFR	tvp < 1.5	IFR	EFR	tvp < 1.5	IFR	EFR	tvp <1.5	Fixed	IFR	EFR	G1 IFR	G2	G1 IFR	G1 EFR	G2
T855	2-606-TK-855							X																S
T856	2-606-TK-856								X													S		
T857	2-606-TK-857																							
T858	2-604-TK-858																							
T859	2-606-TK-859								X													S		
T860	2-606-TK-860								X													S		
T861	2-606-TK-861								X													S		
T862	2-606-TK-862																							
T863	2-606-TK-863																							
T864	2-606-TK-864																							
T865	2-606-TK-865																							
T866	2-606-TK-866																							
T867	2-106-TK-867																							
T868	2-66-TK-868																							
T869	2-66-TK-869																							
T871	1-17-TK-871							X																S
T872	1-17-TK-872							X																S
T873	1-7-TK-873								X														S	
T874	1-7-TK-874								X														S	
T875	1-7-TK-875								X														S	
T877	2-24-TK-877																							
T878	2-24-TK-878																							
T879	2-24TK-879																							
T882	1-38-TK-882							X																S
T883	2-606-TK-883								X													S		
T884	2-606-TK-884								X													S		
T885	2-606-TK-885							X																S
T886	2-606-TK-886							X																S
T887	2-606-TK-887							X																S
T888	2-606-TK-888							X																S
T889	2-606-TK-889							X																S
T890	2-40-TK-890																							
T893	2-31-TK-893							X																S
T894	2-606-TK-894																							
T895	2-606-TK-895								X													S		
T896	2-121-TK-896																							
T897	2-121-TK-897																							
T898	2-606-TK-898																							
T899	2-613-TK-899																							
T902	2-606-TK-902								X													S		
T906	2-606-TK-906								X													S		
T910	2-606-TK-910								X													S		
T914	2-15-TK-914																							
T915	2-606-TK-915							X																S
T916	2-606-TK-916								X													S		
T994	2-606-TK-994							X																S
	2-607-DD-1																							
	2-607-DD-16																							
	2-607-DD-17																							
	2-607-DD-18																							
	2-607-DD-19																							
	2-607-DD-20																							
	2-613-F-77																							
	2-613-F-78																							

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

STORAGE VESSELS (Continued):

Storage Tank Applicable Regulations Table (Continued)
Footnotes

X		This rule applies to this tank and the permittee must comply with the applicable provisions.
S	*HON / Kb*	Per 63.110(b)(1), a 40 CFR 63 Subparts F and G (HON) Group 1 or Group 2 storage vessel that is also subject to the provisions of 40 CFR 60 Subpart Kb is required to comply only with the provisions of 40 CFR 63 Subpart G
	HON / Y	Per 63.110(b)(2), a 40 CFR 63 Subparts F and G (HON) Group 1 storage vessel that is also subject to the provisions of 40 CFR 61 Subpart Y is required to comply only with the provisions of 40 CFR 63 Subpart G
	HON / Y	Per 63.110(b)(3), a 40 CFR 63 Subparts F and G (HON) Group 2 storage vessel that is also subject to the provisions of 40 CFR 61 Subpart Y is required to comply only with the provisions of 40 CFR 61 Subpart Y. The record keeping and reporting requirements of 40 CFR 61 Subpart Y will be accepted as compliance with the record keeping and reporting requirements of 40 CFR 63 Subparts F and G.
	CC / Kb	Per 63.640(n)(1), a 40 CFR 63 Subpart CC Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR 60 Subpart Kb is required to comply only with the requirements of 40 CFR 60 Subpart Kb
	CC / K / Ka	Per 63.640(n)(5), a 40 CFR 63 Subpart CC Group 1 storage vessel that is also subject to the provisions of 40 CFR 60 Subparts K or Ka is required to only comply with the provisions of 40 CFR 63 Subpart CC
	CC / K / Ka	Per 63.640(n)(6), a 40 CFR 63 Subpart CC Group 2 storage vessel that is subject to the control requirements of 40 CFR 60 Subparts K or Ka is required to only comply with the provisions of 40 CFR 60 Subparts K or Ka
	CC / K / Ka	Per 63.640(n)(7), a 40 CFR 63 Subpart CC Group 2 storage vessel that is subject to 40 CFR 60 Subparts K or Ka, but not to the control requirements of 40 CFR 60 Subparts K or Ka, is required to comply only with 40 CFR 63 Subpart CC
C	*Multiple*	Except as specified above, the standards and requirements for storage vessels with a storage capacity greater than 580 gallons in 40 CFR 60 Subpart Kb, 40 CFR 63 Subpart G (HON--Group 1 only), and 40 CFR 63 Subpart CC (Refinery MACT--Group 1 only) are more stringent than the standards and requirements in regulations 40 CFR 61 Subpart Y, 401 KAR 59:050, 40 CFR 60 Subpart NSPS K, 40 CFR 60 Subpart Ka, and 401 KAR 61:050. Therefore, compliance with the requirements in either regulation 40 CFR 60 Subpart Kb, 40 CFR 63 Subpart G (HON--Group 1) or 40 CFR 63 Subpart CC (Refinery MACT--Group 1) is accepted as demonstrating compliance with any of these regulations.
	59:050 / K / Ka	Compliance with the requirements of 401 KAR 59:050 is accepted as demonstrating compliance with 40 CFR 60 Subpart K or Ka
	61:050 / Y	Compliance with 40 CFR 61 Subpart Y is accepted as demonstrating compliance with 401 KAR 61:050
E		Per 63.640(g)(7), storage vessels subject to the provisions of 40 CFR 63 Subparts F, G, H, and I are not subject to the provisions of 40 CFR 63 Subpart CC

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

STORAGE VESSELS (Continued):

APPLICABLE REGULATIONS	
401 KAR 59:050	New Storage Vessels for Petroleum Liquids
401 KAR 59:174	Stage II Controls at Gasoline Dispensing Facilities (applicable to insignificant gasoline refueling operations)
401 KAR 59:175	New Service Stations (applicable to insignificant gasoline refueling operations)
401 KAR 61:050	Existing Storage Vessels for Petroleum Liquids
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart A	General Provisions
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart K	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973 and Prior to May 19, 1978
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart Ka	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978 and Prior to July 23, 1984
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart UU	Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture
401 KAR 67:002 incorporating by reference 40 CFR 61 Subpart Y	National Emission Standard for Benzene Emissions from Benzene Storage Vessels
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart G	National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

APPLICABLE REGULATIONS:	
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart CC	National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries

Applicable requirements have been categorized in the Storage Tank Applicable Regulations Table, which indicates which category applies to each tank. The requirements for each category are given in the following sections of this permit.

REGULATION CLARIFICATIONS:

A *HON/Kb*-Per 40 CFR 63.110(b)(1), a 40 CFR 63 Subparts F and G (HON) Group 1 or Group 2 storage vessel that is also subject to the provisions of 40 CFR 60 Subpart Kb is required to comply only with the provisions of 40 CFR 63 Subpart G.

B *HON/Y*- Per 40 CFR 63.110(b)(2), a 40 CFR 63 Subparts F and G (HON) Group 1 storage vessel that is also subject to the provisions of 40 CFR 61 Subpart Y is required to comply only with the provisions of 40 CFR 63 Subpart G.

C *HON/Y*- Per 40 CFR 63.110(b)(3), a 40 CFR 63 Subparts F and G (HON) Group 2 storage vessel that is also subject to the provisions of 40 CFR 61 Subpart Y is required to comply only with the provisions of 40 CFR 61 Subpart Y. The record keeping and reporting requirements of 40 CFR 61 Subpart Y will be accepted as compliance with the record keeping and reporting requirements of 40 CFR 63 Subparts F and G.

D *CC/Kb*- Per 40 CFR 63.640(n)(1), a 40 CFR 63 Subpart CC Group 1 or Group 2 storage vessel that is part of an existing source and is also subject to the provisions of 40 CFR 60 Subpart Kb is required to comply only with the requirements of 40 CFR 60 Subpart Kb.

E *CC/K/Kc*- Per 40 CFR 63.640(n)(5), a 40 CFR 63 Subpart CC Group 1 storage vessel that is also subject to the provisions of 40 CFR 60 Subparts K or Ka is required to only comply with the provisions of 40 CFR 63 Subpart CC.

F *CC/K/Ka*- Per 40 CFR 63.640(n)(6), a 40 CFR 63 Subpart CC Group 2 storage vessel that is subject to the control requirements of 40 CFR 60 Subparts K or Ka is required to only comply with the provisions of 40 CFR 60 Subparts K or Ka.

G *CC/K/Ka*- Per 40 CFR 63.640(n)(7), a 40 CFR 63 Subpart CC Group 2 storage vessel that is subject to 40 CFR 60 Subparts K or Ka, but not to the control requirements of 40 CFR 60 Subparts K or Ka, is required to comply only with 40 CFR 63 Subpart CC.

H *HON/CC*- Per 40 CFR 63.640(g)(7), storage vessels subject to the provisions of 40 CFR 63 Subparts F or G are not subject to the provisions of 40 CFR 63 Subpart CC.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

REGULATION CLARIFICATIONS (Continued):

I The standards and requirements for storage vessels with a storage capacity greater than 580 gallons in 40 CFR 60 Subpart Kb, 40 CFR 63 Subpart G (HON--Group 1 only), and 40 CFR 63 Subpart CC (Refinery MACT--Group 1 only) are more stringent than the standards and requirements in regulations 40 CFR 61 Subpart Y, 401 KAR 59:050, 40 CFR 60 Subpart K, 40 CFR 60 Subpart Ka, and 401 KAR 61:050. Therefore, compliance with the requirements in either regulation 40 CFR 60 Subpart Kb, 40 CFR 63 Subpart G (HON--Group 1) or 40 CFR 63 Subpart CC (Refinery MACT--Group 1) is accepted as demonstrating compliance with any of these regulations.

J *59:050/K/Ka*- Compliance with the requirements of 401 KAR 59:050 new storage tank for petroleum liquid is accepted as demonstrating compliance with 40 CFR 60 Subpart K or Ka, as stated in the permit.

K *61:050/Y*- Compliance with 40 CFR 61 Subpart Y is accepted as demonstrating compliance with 401 KAR 61:050, existing storage vessels for petroleum liquid.

L Storage tanks may change from cold service to hot service without a permit revision as long as change does not change the regulatory requirements specified in the Storage Tank Applicable Regulations Table.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

The requirements for the storage vessels have been divided into the following groups of requirements with the applicable regulations for each specific emission point shown on the Storage Tank Applicable Regulations Table near the beginning of the STORAGE VESSELS section of the permit.

401 KAR 59:050: New Storage Vessels for Petroleum Liquids

401 KAR 61:050: Existing Storage Vessels for Petroleum Liquids

40 CFR PART 60 SUBPART K: Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973 and Prior to May 19, 1978

40 CFR PART 60 SUBPART Ka: Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978 and Prior to July 23, 1984

40 CFR PART 60 SUBPART Kb: Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

40 CFR 60 Subpart UU: Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture

40 CFR 61 Subpart Y: National Emission Standard for Benzene Emissions from Benzene Storage Vessels

40 CFR 63 Subpart G: National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater

40 CFR 63 Subpart CC: National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries

Storage Tanks with Synthetic Minor Emission Limitations

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

401 KAR 59:050, New Storage Vessels for Petroleum Liquids

1. **Operating Limitations:**
   a. Per 401 KAR 59:050, all storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 401 KAR 59:050, tvp<1.5, shall comply with the following:
      (1) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than ten and three-tenths (10.3) kPa (one and five-tenths (1.5) psia), as a minimum the tank shall be equipped with a permanent submerged fill pipe. [401 KAR 59:050 Section 3(2)]
      (2) All openings, except stub drains, automatic bleeder vents, rim space vents, and leg sleeves, shall be equipped with covers, lids, or seals such that the cover, lid, or seal is in the closed position at all times (i.e., no visible gap) except when in actual use. [401 KAR 59:050 Section 4(2)(a)]

   b. Per 401 KAR 59:050, all storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 401 KAR 59:050, FIXED, shall comply with the following:
      (1) These vessels shall not store any petroleum liquid whose vapor pressure, as stored, is equal to or greater than ten and three-tenths (10.3) kPa (one and five-tenths (1.5) psia), without installing additional control equipment (floating roof, vapor recovery system, or equivalent). [401 KAR 59:050 Section 3(1)(a)]
      (2) All openings, except stub drains, automatic bleeder vents, rim space vents, and leg sleeves, shall be equipped with covers, lids, or seals such that the cover, lid, or seal is in the closed position at all times (i.e., no visible gap) except when in actual use. [401 KAR 59:050 Section 4(2)(a)]

   c. Per 401 KAR 59:050, all storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 401 KAR 59:050, IFR, shall comply with the following:
      (1) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than seventy-eight (78) mm Hg (one and five-tenths (1.5) psia) but not greater than 574 mm Hg (eleven and one-tenth (11.1) psia) the storage vessel shall be equipped with a floating roof, a vapor recovery system, or their equivalents. [401 KAR 59:050 Section 3(1)(a)]
      (2) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than ten and three-tenths (10.3) kPa (one and five-tenths (1.5) psia), as a minimum the tank shall be equipped with a permanent submerged fill pipe. [401 KAR 59:050 Section 3(2)]
      (3) Equip the vessel with a fixed roof with an internal floating type cover equipped with a continuous closure device between the tank wall and the cover edge. [401 KAR 59:050 Section 3(3)(b)]
      (4) There shall be no visible holes, tears, or other opening in the seal, any seal fabric, shoe, or seal envelope. [401 KAR 59:050 Section 4(1)]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

401 KAR 59:050, New Storage Vessels for Petroleum Liquids (Continued):

1. **Operating Limitations (Continued):**
   (5) Per 401 KAR 59:050 Section 4(2), all openings, except stub drains, automatic bleeder vents, rim space vents, and leg sleeves, shall be equipped with covers, lids, or seals such that:
   (i) The cover, lid, or seal is in the closed position at all times (i.e., no visible gap) except when in actual use or as described in subsection (3)(f) of 401 KAR 59:050;
   (ii) Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and
   (iii) Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.
   (6) The roof is to be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill and when the tank is completely emptied and subsequently refilled. The process of emptying and refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished in the minimum time necessary. [401 KAR 59:050 Section 4(3)(a)]
   (7) Each opening in the roof except for automatic bleeder vents and rim space vents is to provide a projection below the liquid surface. [401 KAR 59:050 Section 4(3)(e)]

2. **Emission Limitations:**
   None

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   None

5. **Specific Recordkeeping Requirements:**
   Per 401 KAR 59:050(5)(1), all storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 401 KAR 59:050, tvp<1.5, 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.

6. **Specific Reporting Requirements:**
   None

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

401 KAR 61:050, Existing Storage Vessels for Petroleum Liquids

1. **Operating Limitations:**
   a. Per 401 KAR 61:050, all storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 401 KAR 61:050, tvp<1.5, shall comply with the following requirements:
      (1) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than ten and three-tenths (10.3) kilopascal (one and five-tenths (1.5) psia), as a minimum the vessel shall be equipped with a permanent submerged fill pipe. [401 KAR 61:050 Section 3(3)]
      (2) All openings, except stub drains, shall be equipped with covers, lids, or seals so that the cover, lid, or, seal is in the closed position at all times except during actual use. [401 KAR 61:050 Section 4(2)(a)]
   b. Per 401 KAR 61:050, all storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 401 KAR 61:050, FIXED, shall comply with the following requirements:
      (1) These vessels shall not store any petroleum liquid whose vapor pressure, as stored, is equal to or greater than ten and three-tenths (10.3) kPa (one and five-tenths (1.5) psia), without installing additional control equipment. [401 KAR 61:050 Sections 3(1) and 3(2)]
      (2) All openings, except stub drains, shall be equipped with covers, lids, or seals so that the cover, lid, or, seal is in the closed position at all times except during actual use. [401 KAR 61:050 Section 4(2)(a)]
   c. Per 401 KAR 61:050, all storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 401 KAR 61:050, IFR, shall comply with the following requirements:
      (1) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than seventy-eight (78) mm Hg (one and five-tenths (1.5) psia) but not greater than 574 mm Hg (eleven and one-tenth (11.1) psia) the storage vessel shall be equipped with either a floating roof, a vapor recovery system, or their equivalents. [401 KAR 61:050 Section 3(1)]
      (2) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than ten and three-tenths (10.3) kilopascal (one and five-tenths (1.5) psia), as a minimum the vessel shall be equipped with a permanent submerged fill pipe. [401 KAR 61:050 Section 3(3)]
      (3) There shall be no visible holes, tears, or other openings in the seal or any seal fabric. [401 KAR 61:050 Section 4(1)]
      (4) Per 401 KAR 61:050 Section 4(2), all openings, except stub drains, shall be equipped with covers, lids, or seals so that:
         (i) The cover, lid, or, seal is in the closed position at all times except during actual use;
         (ii) Automatic bleeder vents are closed at all times, unless the roof is floated off or landed on the roof leg supports; and
         (iii) Rim vents, if provided, are set to open if the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

401 KAR 61:050, Existing Storage Vessels for Petroleum Liquids (Continued):

1. **<u>Operating Limitations (Continued)</u>:**
   d. Per 401 KAR 61:050, all storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 401 KAR 61:050, EFR, shall comply with the following requirements:
      (1) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than seventy-eight (78) mm Hg (one and five-tenths (1.5) psia) but not greater than 574 mm Hg (eleven and one-tenth (11.1) psia) the storage vessel shall be equipped with a floating roof, a vapor recovery system, or their equivalents. [401 KAR 61:050 Section 3(1)]
      (2) If the true vapor pressure of the petroleum liquid, as stored, is equal to or greater than ten and three-tenths (10.3) kilopascal (one and five-tenths (1.5) psia), as a minimum the vessel shall be equipped with a permanent submerged fill pipe. [401 KAR 61:050 Section 3(3)]
      (3) Per 401 KAR 61:050 Section 3(4), the vessel shall be retrofitted with a continuous secondary seal extending from the floating roof to the tank wall (a rim-mounted secondary seal) if:
         (i) The tank is a welded tank, the true vapor pressure of the contained liquid is twenty-seven and six-tenths (27.6) kilopascal (four (4.0) psia) or greater, and the primary seal is one (1) of the following:
            (A) A metallic-type shoe seal, a liquid-mounted foam seal, or a liquid-mounted liquid-filled type seal; or
            (B) Any other closure device, which can be, demonstrated equivalent to the above primary seals.
         (ii) The tank is a riveted tank and the true vapor pressure of the contained liquid is ten and three-tenths (10.3) kilopascal (one and five-tenths (1.5) psia) or greater.
         (iii) The tank is a welded tank, the true vapor pressure of the contained liquid is ten and three-tenths (10.3) kilopascal (one and five-tenths (1.5) psia) or greater and the primary seal is vapor-mounted. If this primary seal closure device can be demonstrated equivalent to the primary seals described in paragraph (a) of this subsection, then the secondary seal is required if the vapor pressure is twenty-seven and six-tenths (27.6) kilopascal (four (4.0) psia) or greater.
      (4) Comply with 401 KAR 61:050 Section 4 as follows:
         (i) There shall be no visible holes, tears, or other openings in the seal or any seal fabric. [401 KAR 61:050 Section 4(1)]
         (ii) Pursuant to 401 KAR 61:050 Section 4(2), All openings, except stub drains, shall be equipped with covers, lids, or seals so that:
            (A) The cover, lid, or, seal is in the closed position at all times except during actual use;
            (B) Automatic bleeder vents are closed at all times, unless the roof is floated off or landed on the roof leg supports; and
            (C) Rim vents, if provided, are set to open if the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

401 KAR 61:050, Existing Storage Vessels for Petroleum Liquids (Continued):

1. **Operating Limitations (Continued):**
   (iii) External floating roof tanks subject to this regulation shall meet the additional requirements;
   (A) The seals shall be intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall.
   (B) The gap area of gaps exceeding 0.32 cm (one-eighth (1/8) in) in width between the secondary seal installed pursuant to Section 3(4)(a) of this regulation and the tank wall shall not exceed six and five-tenths (6.5) sq. cm./0.3 m of tank diameter (one (1.0) sq. in/ft).
   (C) All openings in the external floating roof, except for automatic bleeder vents, rims space vents, and leg sleeves, shall provide a projection below the liquid surface.
   (D) Any emergency roof drain shall be provided with a slotted membrane fabric cover or equivalent that covers at least ninety (90) percent of the area of the opening."
   (5) Per 401 KAR 61:050 Section 7, any of the following types of external floating roof tanks storing liquid petroleum shall be exempt from 401 KAR 61:050 Section 3(4) as follows:
   (i) A metallic-type shoe seal in a welded tank which has a secondary seal from the top of the shoe seal to the tank wall (a shoe-mounted secondary seal).
   (ii) External floating roof tanks with a closure or other devices which can be demonstrated to the satisfaction of the cabinet to be equivalent to the seals required in 401 KAR 61:050 Section 3(4)(a).

2. **Emission Limitations:**
   None

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   None

5. **Specific Recordkeeping Requirements:**
   Per 401 KAR 61:050(5)(1), for all storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 401 KAR 61:050, EFR, if a liquid having a true vapor pressure greater than seven (7.0) kPa (one (1.0) psia) is stored in an external floating roof tank not equipped with a secondary seal, or approved alternative control technology, the owner or operator shall maintain a record of the average monthly storage temperature, the type of liquid, and the Reid vapor pressure of the liquid. The owner or operator shall retain the record for two (2) years after the date on which the record was made.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

401 KAR 61:050, Existing Storage Vessels for Petroleum Liquids (Continued):

6. **Specific Reporting Requirements:**
   None

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR PART 60 SUBPART K, Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973 and Prior to May 19, 1978:

For all tanks listed in the Storage Tank Applicable Regulations Table as being subject to 40 CFR 60 Subpart K, the compliance with Subpart K is demonstrated by demonstrating compliance with another applicable regulation, as explained in the footnotes to the Storage Tank Applicable Regulations Table.

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   None

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   None

5. **Specific Recordkeeping Requirements:**
   None

6. **Specific Reporting Requirements:**
   None

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR PART 60 SUBPART Ka, Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978 and Prior to July 23, 1984:

For all tanks listed in the Storage Tank Applicable Regulations Table as being subject to 40 CFR 60 Subpart Ka, the compliance with Subpart Ka is demonstrated by demonstrating compliance with another applicable regulation, as explained in the footnotes to the Storage Tank Applicable Regulations Table.

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   None

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   None

5. **Specific Recordkeeping Requirements:**
   None

6. **Specific Reporting Requirements:**
   None

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 60 Subpart Kb, Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984:

1. **Operating Limitations:**
   a. Per 40 CFR 60.110b(c), storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 40 CFR 60 Subpart Kb, <tvp, are exempt from Subparts A and Kb of 40 CFR Part 60, except as specified in this permit, as long as vessels of capacity greater than or equal to 151 m^3 (40,000 gallons) are storing liquids with a maximum true vapor pressure less than 3.5 kPa (0.5 psi), and vessels of capacity greater than or equal to 75 m^3 (20,000 gallons) but less than 151 m^3 are storing liquids with a maximum true vapor pressure less than 15.0 kPa (2.2 psi). If vessels of capacity greater than or equal to 75 m^3 (20,000 gallons) but less than 151 m^3 are storing liquids with a maximum true vapor pressure greater than 15.0 kPa but less than 27.6 kPa (4.0 psi), then these vessels are exempt from 40 CFR 60 Subpart Kb, except as specified in this permit, but are not exempt from 40 CFR 60 Subpart A.

   b. Per 40 CFR 60.112b(a), storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 40 CFR 60 Subpart Kb, <tvp, shall not store liquids with a maximum true vapor pressure greater than the following: for vessels of capacity greater than or equal to 151 m^3 (40,000 gallons), the maximum true vapor pressure shall not exceed 5.2 kPa (0.75 psi). For vessels of capacity greater than or equal to 75 m^3 (20,000 gallons) but less than 151 m^3, the maximum true vapor pressure shall not exceed 27.6 kPa (4 psi).

   c. Storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 40 CFR 60 Subpart Kb, IFR, shall comply with the requirements of 40 CFR 60.112b(a)(1) as follows:
   [40 CFR 60.112b(a)(1)]
   "(a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m3 but less than 151 m3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:
   (1) A fixed roof in combination with an internal floating roof meeting the following specifications:
   (i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 60 Subpart Kb (Continued):

1. <u>Operating Limitations (Continued)</u>:

(ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(A) A foam-or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam-or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 60 Subpart Kb (Continued):

1. **Operating Limitations (Continued):**

   (ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover."

2. **Emission Limitations:**
   None

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   a. Storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 40 CFR 60 Subpart Kb, IFR, shall comply with the requirements of 40 CFR 60.113b(a) as follows:
   [40 CFR 60.113b(a)]
   "(a) After installing the control equipment required to meet §60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:
   (1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.
   (2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in §60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company 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.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 60 Subpart Kb (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

(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, the owner or operator 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 the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator 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."

5. <u>Specific Recordkeeping Requirements</u>:

a. Per 40 CFR 60.116b(a) and (b), each storage vessel listed in the Storage Tank Applicable Regulations Table as subject to 40 CFR 60 Subpart Kb shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. These records shall be maintained for the life of the vessel.
b. Per 40 CFR 60.116b(c), for each storage vessel listed in the Storage Tank Applicable Regulations Table as subject to 40 CFR 60 Subpart Kb, <tvp or IFR, the permittee 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.
c. Per 40 CFR 60.115b(a)(2), for storage vessels listed in the Storage Tank Applicable Regulations Table as subject 40 CFR 60 Subpart Kb, IFR the permittee shall keep a record of each inspection performed as required by 40 CFR 60.113b(a)(1), (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).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 60 Subpart Kb (Continued):

6. <u>Specific Reporting Requirements</u>:

a. Per 40 CFR 60.116b(d), for each storage vessel listed in the Storage Tank Applicable Regulations Table as subject to 40 CFR 60 Subpart Kb, <tvp, the permittee shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds 5.2 kPa (0.75 psi) for vessels of capacity greater than or equal to 151 m^3 (40,000 gallons), or 27.6 kPa (4 psi) for vessels of capacity greater than or equal to 75 m^3 (20,000 gallons) but less than 151 m^3.

b. Per 40 CFR 60.115b(a)(3), for storage vessels listed in the Storage Tank Applicable Regulations Table as subject 40 CFR 60 Subpart Kb, IFR, if any of the conditions described in 40 CFR 60.113b(a)(2) are detected during the annual visual inspection required by 40 CFR 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.

c. Per 40 CFR 60.115b(a)(4), for storage vessels listed in the Storage Tank Applicable Regulations Table as subject 40 CFR 60 Subpart Kb, IFR, after each inspection required by 40 CFR 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 40 CFR 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR 61.112b(a)(1) or 40 CFR 60.113b(a)(3) and list each repair made.

<u>Tank 363:</u> Refurbish IFR Ethanol storage Tank- re-commissioned in 2006.

a. Pursuant to 40 CFR Pursuant to 40 CFR 60.7(a)(1) furnish the Division with written notification of the date construction of the tank is commenced, postmarked no later than 30 days after such date.

b. Pursuant to 40 CFR 60.7(a)(3) furnish the Division with the written notification of the actual date of initial startup, postmarked within 15 days after such date.

c. Pursuant to 40 CFR 60.115(a)(1), furnish the Division with a report that describes the control equipment and certificates that control equipment meets the specifications of 60.112b(a)(1) and 60.113b(a)(1). This report shall be an attachment to the notification required by 60.7(a)(3).

7. <u>Specific Control Equipment Operating Conditions</u>

None

8. <u>Alternate Operating Scenarios</u>:

None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 60 Subpart UU, Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture:

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   Storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 40 CFR 60 Subpart UU shall comply with the requirements of 40 CFR 60.472(c) as follows:
   [40 CFR 60.472(c)]
   "(c) Within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any asphalt storage tank exhaust gases with opacity greater than 0 percent, except for one consecutive 15-minute period in any 24-hour period when the transfer lines are being blown for clearing. The control device shall not be bypassed during this 15-minute period. If, however, the emissions from any asphalt storage tank(s) are ducted to a control device for a saturator, the combined emissions shall meet the emission limit contained in paragraph (a) of this section during the time the saturator control device is operating. At any other time the asphalt storage tank(s) must meet the opacity limit specified above for storage tanks."

   Compliance Demonstration Method:
   For compliance with the 0 percent opacity limit from any asphalt storage tank, refer to Section 3, Testing Requirements for the Method 9 performance test.

3. **Testing Requirements:**
   Storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 40 CFR 60 Subpart UU shall comply with the requirements of 40 CFR 60.474(b) and (c)(5) as follows:
   [40 CFR 60.472(b) and (c)(5)]
   "(b)In conducting the performance tests required in § 60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).
   (c)(5)Method 9 and the procedures in § 60.11 shall be used to determine opacity."

4. **Specific Monitoring Requirements:**
   None

5. **Specific Recordkeeping Requirements:**
   For storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 40 CFR 60 Subpart UU, the permittee shall keep copies of the initial Method 9 performance test results.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 60 Subpart UU, Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture (Continued):

6. **Specific Reporting Requirements:**
   None

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Operating Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 61 Subpart Y, National Emission Standard for Benzene Emissions from Benzene Storage Vessels:

1. **<u>Operating Limitations:</u>**
   a. Storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 40 CFR 61 Subpart Y shall comply with the requirements of 40 CFR 61.271(a) as follows: [40 CFR 61.271(a)]

"(a) The storage vessel shall be equipped with a fixed roof and an internal floating roof.

(1) An internal floating roof means a cover that rests on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a permanently affixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(2) Each internal floating roof shall be equipped with one of the closure devices listed in paragraphs (a)(2) (i), (ii), or (iii) of this section between the wall of the storage vessel and the edge of the internal floating roof. This requirement does not apply to each existing storage vessel for which construction of an internal floating roof equipped with a continuous seal commenced on or before July 28, 1988. A continuous seal means a seal that forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof.

(i) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the vessel.

(ii) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(iii) A metallic shoe seal. A metallic shoe seal (also referred to as a mechanical shoe seal) is, but is not limited to, a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(3) Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports.

(4) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 61 Subpart Y, National Emission Standard for Benzene Emissions from Benzene Storage Vessels (Continued):

1. **Operating Limitations (Continued):**

(5) Each internal floating roof shall meet the specifications listed below. If an existing storage vessel had an internal floating roof with a continuous seal as of July 28, 1988, the requirements listed below do not have to be met until the first time after September 14, 1989, the vessel is emptied and degassed or September 14, 1999, whichever occurs first,

(i) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted.

(ii) Each penetration of the internal floating roof for the purposes of sampling shall be a sample well. Each sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(iii) Each automatic bleeder vent shall be gasketed.

(iv) Rim space vents shall be equipped with a gasket

(v) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.

(vi) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(6) Each cover or lid on any opening in the internal floating roof shall be closed (i.e., no visible gaps), except when a device is in actual use Covers on each access hatch and each automatic gauge float well which are equipped with bolts shall be bolted when they are not in use. Rim space vents are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting."

2. **Emission Limitations:**
None

3. **Testing Requirements:**
None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 61 Subpart Y, National Emission Standard for Benzene Emissions from Benzene Storage Vessels (Continued):

4. <u>Specific Monitoring Requirements</u>:

a. Storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 40 CFR 61 Subpart Y shall comply with the requirements of 40 CFR 61.272(a) as follows:

"(a) For each vessel complying with §61.271(a) (fixed roof and internal floating roof) each owner or operator shall:

(1) After installing the control equipment required to comply with §61.271(a), 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 benzene. 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, the owner or operator shall repair the items before filling the storage vessel.

(2) 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, or at least once every 12 months after September 14, 1989, except as provided in paragraph (a)(4)(i) of this section. If the internal floating roof is not resting on the surface of the benzene liquid inside the storage vessel, or there is liquid on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, an extension of up to 30 additional days may be requested from the Administrator in the inspection report required in §61.275(a). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as possible.

(3) 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. 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 inspections as specified in paragraph (a)(2) of this section and at intervals greater than 5 years in the case of vessels specified in paragraph (a)(4)(i) of this section.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 61 Subpart Y, National Emission Standard for Benzene Emissions from Benzene Storage Vessels (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

(i) For all the inspections required by paragraphs (a)(1) and (a)(3) of this section, the owner or operator shall notify the Administrator in writing at least 30 days prior to the refilling of each storage vessel to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph (a)(3) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the vessel, the owner or operator 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, the 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 refilling.

(ii) 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, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with benzene.

(4) For vessels equipped with a double-seal system as specified in §61.271(a)(2)(ii):

(i) Visually inspect the vessel as specified in paragraph (a)(3) of this section at least every 5 years; or

(ii) Visually inspect the vessel annually as specified in paragraph (a)(2) of this section, and at least every 10 years as specified in paragraph (a)(3) of this section."

5. <u>Specific Recordkeeping Requirements</u>:

Per 40 CFR 61.276(a) and (b), for storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 40 CFR 61 Subpart Y, the permittee shall keep copies of all the reports and records required by Subpart Y for at least 2 years, except the following: the permittee shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel, which shall be kept as long as the storage vessel is in operation.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 61 Subpart Y, National Emission Standard for Benzene Emissions from Benzene Storage Vessels (Continued):

6. <u>Specific Reporting Requirements</u>:

Storage vessels listed in the Storage Tank Applicable Regulations Table as subject to 40 CFR 61 Subpart Y shall comply with the requirements of 40 CFR 61.275(a) and (b) as follows:

[40 CFR 61.275(a) and (b)]

"(a) The owner or operator of each storage vessel to which this subpart applies after installing control equipment in accordance with §61.271(a) (fixed roof and internal floating roof) shall submit a report describing the results of each inspection conducted in accordance with §61.272(a). For vessels for which annual inspections are required under §61.272(a)(2), the first report is to be submitted no more than 12 months after the initial report submitted in accordance with §61.274, and each report is to be submitted within 60 days of each annual inspection.

(1) Each report shall include the date of the inspection of each storage vessel and identify each storage vessel in which:

(i) The internal floating roof is not resting on the surface of the benzene liquid inside the storage vessel, or there is liquid on the 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

(ii) There are visible gaps between the seal and the wall of the storage vessel.

(2) Where an annual report identifies any condition in paragraph (a)(1) of this section the annual report shall describe the nature of the defect, the date the storage vessel was emptied, and the nature of and date the repair was made, except as provided in paragraph (a)(3) of this section.

(3) If an extension is requested in an annual periodic report in accordance with §61.272(a)(2), a supplemental periodic report shall be submitted within 15 days of repair. This report shall identify the vessel and describe the date the storage vessel was emptied and the nature of and date the repair was made.

(b) The owner or operator of each storage vessel to which this subpart applies after installing control equipment in accordance with §61.271(a) (fixed roof and internal floating roof) shall submit a report describing the results of each inspection conducted in accordance with §61.272(a)(3) or (4).

(1) The report is to be submitted within 60 days of conducting each inspection required by §61.272(a)(3) or (4).

(2) Each report shall identify each storage vessel in which the owner or operator finds that 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 (if one has been installed) 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. The report shall also describe the nature of the defect, the date the storage vessel was emptied, and the nature of and date the repair was made."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 61 Subpart Y, National Emission Standard for Benzene Emissions from Benzene Storage Vessels (Continued):

7. Specific Control Equipment Operating Conditions:
None

8. Alternate Operating Scenarios:
None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G, National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemicals Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater:

1. **<u>Operating Limitations:</u>**
   a. The permittee shall operate and maintain the appropriate roof for Group 1 HON (40 CFR 63 Subpart G) storage vessels in the Storage Tank Applicable Regulations Table, according to 40 CFR 63.119(a)(1) as follows:
   [40 CFR 63.119]
   "(a) For each storage vessel to which this subpart applies, the owner or operator shall comply with the requirements of paragraphs (a)(1), (a)(2), (a)(3), and (a)(4) of this section according to the schedule provisions of Sec. 63.100 of subpart F of this part.
   (1) For each Group 1 storage vessel (as defined in table 5 of this subpart for existing sources and table 6 for new sources) storing a liquid for which the maximum true vapor pressure of the total organic hazardous air pollutants in the liquid is less than 76.6 kilopascals, the owner or operator shall reduce hazardous air pollutants emissions to the atmosphere either by operating and maintaining a fixed roof and internal floating roof, an external floating roof, an external floating roof converted to an internal floating roof, or a closed vent system and control device, or routing the emissions to a process or a fuel gas system in accordance with the requirements in paragraph (b), (c), (d), (e), or (f) of this section, or equivalent as provided in Sec. 63.121 of this subpart."

   b. The permittee shall operate the Group 1 HON (40 CFR 63 Subpart G) internal floating roof (IFR) tanks in the Storage Tank Applicable Regulations Table according to 40 CFR 63.119(b) as follows:
   [40 CFR 63.119]
   "(b) The owner or operator who elects to use a fixed roof and an internal floating roof, as defined in Sec. 63.111 of this subpart, to comply with the requirements of paragraph (a)(1) of this section shall comply with the requirements specified in paragraphs (b)(1) through (b)(6) of this section. Note: The intent of paragraphs (b)(1) and (b)(2) of this section is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty.
   (1) The internal floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports during the periods specified in paragraphs (b)(1)(i) through (b)(1)(iii) of this section.
   (i)During the initial fill.
   (ii) After the vessel has been completely emptied and degassed.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

1. **Operating Limitations (Continued):**

(iii) When the vessel is completely emptied before being subsequently refilled.

(2) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.

(3) Each internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. Except as provided in paragraph (b)(3)(iv) of this section, the closure device shall consist of one of the devices listed in paragraph (b)(3)(i), (b)(3)(ii), or (b)(3)(iii) of this section.

(i) A liquid-mounted seal as defined in Sec. 63.111 of this subpart.

(ii) A metallic shoe seal as defined in Sec. 63.111 of this subpart.

(iii) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous seals.

(iv) If the internal floating roof is equipped with a vapor-mounted seal as of December 31, 1992, the requirement for one of the seal options specified in paragraphs (b)(3)(i), (b)(3)(ii), and (b)(3)(iii) of this section does not apply until the earlier of the dates specified in paragraphs (b)(3)(iv)(A) and (b)(3)(iv)(B) of this section.

(A) The next time the storage vessel is emptied and degassed.

(B) No later than 10 years after April 22, 1994.

(4) Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports.

(5) Except as provided in paragraph (b)(5)(viii) of this section, each internal floating roof shall meet the specifications listed in paragraphs (b)(5)(i) through (b)(5)(vii) of this section.

(i) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents is to provide a projection below the liquid surface.

(ii) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains shall be equipped with a cover or lid. The cover or lid shall be equipped with a gasket.

(iii) Each penetration of the internal floating roof for the purposes of sampling shall be a sample well. Each sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

1. <u>Operating Limitations (Continued)</u>:

(iv) Each automatic bleeder vent shall be gasketed.
(v) Each rim space vent shall be gasketed.
(vi) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.
(vii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
(viii) If the internal floating roof does not meet any one of the specifications listed in paragraphs (b)(5)(i) through (b)(5)(vii) of this section as of December 31, 1992, the requirement for meeting those specifications does not apply until the earlier of the dates specified in paragraphs (b)(5)(viii)(A) and (b)(5)(viii)(B) of this section.
(A) The next time the storage vessel is emptied and degassed.
(B) No later than 10 years after April 22, 1994.

(6) Each cover or lid on any opening in the internal floating roof shall be closed (i.e., no visible gaps), except when the cover or lid must be open for access. Covers on each access hatch and each gauge float well shall be bolted or fastened so as to be air-tight when they are closed. Rim space vents are to be set to open only when the internal floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting."

c. The permittee shall operate the Group 1 HON (40 CFR 63 Subpart G) external floating roof (EFR) tanks in the Storage Tank Applicable Regulations Table according to 40 CFR 63.119(c) as follows:
[40 CFR 63.119]
"(c) The owner or operator who elects to use an external floating roof, as defined in Sec. 63.111 of this subpart, to comply with the requirements of paragraph (a)(1) of this section shall comply with the requirements specified in paragraphs (c)(1) through (c)(4) of this section.
(1) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge.
(i) Except as provided in paragraph (c)(1)(iv) of this section, the closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal and the upper seal is referred to as the secondary seal.
(ii) Except as provided in paragraph (c)(1)(v) of this section, the primary seal shall be either a metallic shoe seal or a liquid-mounted seal.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

1. **Operating Limitations (Continued):**

(iii) Except during the inspections required by Sec. 63.120(b) of this subpart, both the primary seal and the secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion.

(iv) If the external floating roof is equipped with a liquid-mounted or metallic shoe primary seal as of December 31, 1992, the requirement for a secondary seal in paragraph (c)(1)(i) of this section does not apply until the earlier of the dates specified in paragraphs (c)(1)(iv)(A) and (c)(1)(iv)(B) of this section.

(A) The next time the storage vessel is emptied and degassed.

(B) No later than 10 years after April 22, 1994.

(v) If the external floating roof is equipped with a vapor-mounted primary seal and a secondary seal as of December 31, 1992, the requirement for a liquid-mounted or metallic shoe primary seal in paragraph (c)(1)(ii) of this section does not apply until the earlier of the dates specified in paragraphs (c)(1)(v)(A) and (c)(1)(v)(B) of this section.

(A) The next time the storage vessel is emptied and degassed.

(B) No later than 10 years after April 22, 1994.

(2) Each external floating roof shall meet the specifications listed in paragraphs (c)(2)(i) through (c)(2)(xii) of this section.

(i) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in the noncontact external floating roof shall provide a projection below the liquid surface except as provided in paragraph (c)(2)(xii) of this section.

(ii) Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal or lid which is to be maintained in a closed position (i.e., no visible gap) at all times except when the cover or lid must be open for access. Covers on each access hatch and each gauge float well shall be bolted or fastened so as to be air-tight when they are closed.

(iii) Automatic bleeder vents are to be closed at all times is floating, except when the roof is being floated off or is being landed on the roof leg supports.

(iv) Rim space vents are to be set to open only when the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(v) Automatic bleeder vents and rim space vents are to be gasketed.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

1. **Operating Limitations (Continued):**

(vi) Each roof drain that empties into the stored liquid is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(vii) Each unslotted guide pole well shall have a gasketed sliding cover or a flexible fabric sleeve seal.

(viii) Each unslotted guide pole shall have on the end of the pole a gasketed cap, which is closed at all times except when gauging the liquid level or taking liquid samples.

(ix) Each slotted guide pole well shall have a gasketed sliding cover or a flexible fabric sleeve seal.

(x) Each slotted guide pole shall have a gasketed float or other device, which closes off the liquid surface from the atmosphere.

(xi) Each gauge hatch/sample well shall have a gasketed cover which is closed at all times except when the hatch or well must be open for access.

(xii) If each opening in a noncontact external floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents does not provide a projection below the liquid surface as of December 31, 1992, the requirement for providing these projections below the liquid surface does not apply until the earlier of the dates specified in paragraphs (c)(2)(xii)(A) and (c)(2)(xii)(B) of this section.

(A) The next time the storage vessel is emptied and degassed.

(B) No later than 10 years after April 22, 1994.

Note: The intent of paragraphs (c)(3) and (c)(4) of this section is to avoid having a vapor space between the floating roof and the stored liquid for the extended periods. Storage vessels may be emptied for the purposes such as routine storage vessel maintenance, inspection, petroleum liquid deliveries, or transfer operation. Storage vessels where liquid is left on the walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty.

(3) The external floating roof should be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports during the periods specified in the paragraphs (c)(3)(i) through (c)(3)(iii) of this section.

(i) During the initial fill.

(ii) After the vessel has been completely emptied and degassed.

(iii) When the vessel is completely emptied before being subsequently refilled.

(4) When the floating roof is resting on the leg supports, the process of filling, emptying or refilling shall be continuous and shall be accomplished as soon as practical."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

2. **Emission Limitations:**
   None

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   a. The permittee shall demonstrate compliance with 63.119(b) for Group 1 HON (40 CFR 63 Subpart G) internal floating roof (IFR) tanks in the Storage Tank Applicable Regulations Table according to 40 CFR 63.120(a)(1-7), as follows:
   [40 CFR 63.120]
   "(a) To demonstrate compliance with Sec. 63.119(b) of this subpart (storage vessel equipped with a fixed roof and internal floating roof) or with Sec. 63.119(d) of this subpart (storage vessel equipped with an external floating roof converted to an internal floating roof), the owner or operator shall comply with the requirements in paragraphs (a)(1) through (a)(7) of this section.
   (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 (a)(2) and (a)(3) of this section.
   (2) For vessels equipped with a single-seal system, the owner or operator shall perform the inspections specified in paragraphs (a)(2)(i) and (a)(2)(ii) of this section.
   (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 Sec. 63.100 of subpart F of this part.
   (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 Sec. 63.100 of subpart F of this part.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

(3) For vessels equipped with a double-seal system as specified in Sec. 63.119(b)(3)(iii) of this subpart, the owner or operator shall perform either the inspection required in paragraph (a)(3)(i) of this section or the inspections required in both paragraphs (a)(3)(ii) and (a)(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 Sec. 63.100 of subpart F of this part; or

(ii) The owner or operator 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 Sec. 63.100 of subpart F of this part, 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 Sec. 63.100 of subpart F of this part.

(4) If during the inspections required by paragraph (a)(2)(i) or (a)(3)(ii) of this section, 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; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage vessel, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 calendar days. If a failure that is detected during inspections required by paragraph (a)(2)(i) or (a)(3)(ii) of this section cannot be repaired within 45 calendar days and if the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical.

(5) Except as provided in paragraph (a)(6) of this section, for all the inspections required by paragraphs (a)(2)(ii), (a)(3)(i), and (a)(3)(iii) of this section, the owner or operator shall notify the Administrator in writing at least 30 calendar days prior to the refilling of each storage vessel to afford the Administrator the opportunity to have an observer present.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

(6) If the inspection required by paragraph (a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of this section is not planned and the owner or operator could not have known about the inspection 30 calendar days in advance of refilling the vessel, the owner or operator shall notify the Administrator at least 7 calendar days prior to the refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the 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 refilling.

(7) If during the inspections required by paragraph (a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of this section, the internal floating roof has defects; or 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, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with organic HAP."

b. The permittee shall demonstrate compliance with 63.119(c) for Group 1 HON (40 CFR 63 Subpart G) external floating roof (EFR) tanks in the Storage Tank Applicable Regulations Table according to 40 CFR 63.120(b)(1-10), as follows:
[40 CFR 63.120]

"(b) To demonstrate compliance with Sec. 63.119(c) of this subpart (storage vessel equipped with an external floating roof), the owner or operator shall comply with the requirements specified in paragraphs (b)(1) through (b)(10) of this section.

(1) Except as provided in paragraph (b)(7) of this section, the owner or operator 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 (b)(1)(i) through (b)(1)(iii) of this section.

(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 Sec. 63.100 of subpart F of this part, 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 Sec. 63.119(c)(1)(iv) of this subpart, measurements of gaps between the vessel wall

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

and the primary seal shall be performed by the compliance date specified in Sec. 63.100 of subpart F of this part 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 (b)(1)(i) and (b)(1)(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 Sec. 63.100 of subpart F of this part and at least once per year thereafter.

(iv) If any storage vessel ceases to store organic HAP for a period of 1 year or more, or if the maximum true vapor pressure of the total organic HAP's in the stored liquid falls below the values defining Group 1 storage vessels specified in table 5 or table 6 of this subpart for a period of 1 year or more, measurements of gaps between the vessel wall and the primary seal, and gaps between the vessel wall and the secondary seal shall be performed within 90 calendar days of the vessel being refilled with organic HAP.

(2) Except as provided in paragraph (b)(7) of this section, the owner or operator shall determine gap widths and gap areas in the primary and secondary seals (seal gaps) individually by the procedures described in paragraphs (b)(2)(i) through (b)(2)(iii) of this section.

(i) Seal gaps, if any, shall be measured at one or more floating roof levels when the roof is not resting on the roof leg supports.

(ii) Seal gaps, if any, shall be measured around the entire circumference of the vessel in each place where an 0.32 centimeter (\1/8\ inch) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the storage vessel. The circumferential distance of each such location shall also be measured.

(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 vessel wall to the seal and multiplying each such width by its respective circumferential distance.

(3) The owner or operator shall add the gap surface area of each gap location for the primary seal and divide the sum by the nominal diameter of the vessel. The accumulated area of gaps between the vessel wall and the primary seal shall not exceed 212 square centimeters per meter of vessel diameter and the width of any portion of any gap shall not exceed 3.81 centimeters.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

(4) The owner or operator shall add the gap surface area of each gap location for the secondary seal and divide the sum by the nominal diameter of the vessel. The accumulated area of gaps between the vessel wall and the secondary seal shall not exceed 21.2 square centimeters per meter of vessel diameter and the width of any portion of any gap shall not exceed 1.27 centimeters. These seal gap requirements may be exceeded during the measurement of primary seal gaps as required by paragraph (b)(1)(i) and (b)(1)(ii) of this section.

(5) The primary seal shall meet the additional requirements specified in paragraphs (b)(5)(i) and (b)(5)(ii) of this section.

(i) Where a metallic shoe seal is in use, one end of the metallic shoe shall extend into the stored liquid and the other end shall extend a minimum vertical distance of 61 centimeters above the stored liquid surface.

(ii) There shall be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(6) The secondary seal shall meet the additional requirements specified in paragraphs (b)(6)(i) and (b)(6)(ii) of this section.

(i) The secondary seal shall be installed above the primary seal so that it completely covers the space between the roof edge and the vessel wall except as provided in paragraph (b)(4) of this section.

(ii) There shall be no holes, tears, or other openings in the seal or seal fabric.

(7) If the owner or operator determines that it is unsafe to perform the seal gap measurements required in paragraphs (b)(1) and (b)(2) of this section or to inspect the vessel to determine compliance with paragraphs (b)(5) and (b)(6) of this section because the floating roof appears to be structurally unsound and poses an imminent or potential danger to inspecting personnel, the owner or operator shall comply with the requirements in either paragraph (b)(7)(i) or (b)(7)(ii) of this section.

(i) The owner or operator shall measure the seal gaps or inspect the storage vessel no later than 30 calendar days after the determination that the roof is unsafe, or

(ii) The owner or operator shall empty and remove the storage vessel from service no later than 45 calendar days after determining that the roof is unsafe. If the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include an explanation of why it was unsafe to perform the inspection or seal gap measurement, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the vessel will be emptied as soon as practical.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

(8) The owner or operator shall repair conditions that do not meet requirements listed in paragraphs (b)(3), (b)(4), (b)(5), and (b)(6) of this section (i.e., failures) no later than 45 calendar days after identification, or shall empty and remove the storage vessel from service no later than 45 calendar days after identification. If during seal gap measurements required in paragraph (b)(1) and (b)(2) of this section or during inspections necessary to determine compliance with paragraphs (b)(5) and (b)(6) of this section a failure is detected that cannot be repaired within 45 calendar days and if the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical.

(9) The owner or operator shall notify the Administrator in writing 30 calendar days in advance of any gap measurements required by paragraph (b)(1) or (b)(2) of this section to afford the Administrator the opportunity to have an observer present.

(10) The owner or operator 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, 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 organic HAP.

(ii) Except as provided in paragraph (b)(10)(iii) of this section, for all the inspections required by paragraph (b)(10) of this section, the owner or operator 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 required by paragraph (b)(10) of this section is not planned and the owner or operator could not have known about the inspection 30 calendar days in advance of refilling the vessel with organic HAP, 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. 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."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

5. **Specific Recordkeeping Requirements:**
   a. The permittee shall maintain records of Group determination for HON (40 CFR 63 Subpart G) storage tanks in the Storage Tank Applicable Regulations Table in accordance with the requirements of 40 CFR 63.123(a) as follows:
   [40 CFR 63.123]
   "(a)Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. 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 Secs. 63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in Sec. 63.150 of this subpart."
   b. The permittee shall maintain records for the Group 1 HON (40 CFR 63 Subpart G) internal floating roof storage tanks in the Storage Tank Applicable Regulations Table in accordance with the requirements of 40 CFR 63.123(c) as follows:
   [40 CFR 63.123]
   "(c) An owner or operator who elects to comply with Sec. 63.119(b) of this subpart shall keep a record that each inspection required by Sec. 63.120(a) of this subpart was performed."
   c. The permittee shall maintain records for the Group 1 HON (40 CFR 63 Subpart G) external floating roof storage tanks in the Storage Tank Applicable Regulations Table in accordance with the requirements of 40 CFR 63.123(d) as follows:
   [40 CFR 63.123]
   "(d) An owner or operator who elects to comply with Section 63.119(c) of this subpart shall keep the records describing the results of each seal gap measurement made in accordance with Section 63.120(b) of this subpart. The records shall include the date of the measurement, the raw data obtained in the measurement, and the calculations described in Section 63.120(b)(3) and (4) of this subpart."

6. **Specific Reporting Requirements:**
   a. The HON (40 CFR 63 Subpart G) storage vessels complying with 40 CFR 63 Subpart G shall comply with the reporting requirements of 40 CFR 63.122(a)(4-5) as follows:
   [40 CFR 63.122]
   "(4)The owner or operator shall submit Periodic Reports as required by Sec. 63.152(c) of this subpart and shall submit as part of the Periodic Reports the information specified in paragraphs (d), (e), (f), and (g) of this section.
   (5) The owner or operator shall submit, as applicable, other reports as required by Sec. 63.152(d) of this subpart, containing the information specified in paragraph (h) of this section."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

[40 CFR 63.152]

"(c)The owner or operator of a source subject to this subpart shall submit Periodic Reports.

(1) Except as specified under paragraphs (c)(5) and (c)(6) of this section, a report containing the information in paragraphs (c)(2), (c)(3), and (c)(4) of this section shall be submitted semiannually no later than 60 calendar days after the end of each 6-month period. The first report shall be submitted no later than 8 months after the date the Notification of Compliance Status is due and shall cover the 6-month period beginning on the date the Notification of Compliance Status is due.

(2) Except as provided in paragraph (c)(2)(iv) of this section, for an owner or operator of a source complying with the provisions of Secs. 63.113 through 63.147 for any emission points, Periodic Reports shall include all information specified in Secs. 63.117 and 63.118 for process vents, Sec. 63.122 for storage vessels, Secs. 63.129 and 63.130 for transfer operations, and Sec. 63.146 for process wastewater, including reports of periods when monitored parameters are outside their established ranges.

(i) For each parameter or parameters required to be monitored for a control device, the owner or operator shall establish a range of parameter values to ensure that the device is being applied, operated and maintained properly. As specified in paragraph (b)(2) of this section, these parameter values and the definition of an operating day shall be approved as part of and incorporated into the source's Notification of Compliance Status or operating permit, as appropriate.

(ii) The parameter monitoring data for Group 1 emission points and emission points included in emissions averages that are required to perform continuous monitoring shall be used to determine compliance with the required operating conditions for the monitored control devices or recovery devices. For each excursion, except for excused excursions, the owner or operator shall be deemed to have failed to have applied the control in a manner that achieves the required operating conditions.

(A) An excursion means any of the three cases listed in paragraph (c)(2)(ii)(A)(1), (c)(2)(ii)(A)(2), or (c)(2)(ii)(A)(3) of this section. For a control device or recovery device where multiple parameters are monitored, if one or more of the parameters meets the excursion criteria in paragraph (c)(2)(ii)(A)(1), (c)(2)(ii)(A)(2), or (c)(2)(ii)(A)(3) of this section, this is considered a single excursion for the control device or recovery device.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

(1) When the daily average value of one or more monitored parameters is outside the permitted range.

(2) When the period of control device or recovery device operation is 4 hours or greater in an operating day and monitoring data are insufficient to constitute a valid hour of data for at least 75 percent of the operating hours.

(3) When the period of control device or recovery device operation is less than 4 hours in an operating day and more than one of the hours during the period of operation does not constitute a valid hour of data due to insufficient monitoring data.

(4) Monitoring data are insufficient to constitute a valid hour of data, as used in paragraphs (c)(2)(ii)(A)(2) and (c)(2)(ii)(A)(3) of this section, if measured values are unavailable for any of the 15-minute periods within the hour. For data compression systems approved under Sec. 63.151(g)(4), monitoring data are insufficient to calculate a valid hour of data if there are less than 4 data values recorded during the hour.

(B) The number of excused excursions for each control device or recovery device for each semiannual period is specified in paragraphs (c)(2)(ii)(B)(1) through (c)(2)(ii)(B)(6) of this section. This paragraph applies to sources required to submit Periodic Reports semiannually or quarterly. The first semiannual period is the 6-month period starting the date the Notification of Compliance Status is due.

(1) For the first semiannual period--six excused excursions.

(2) For the second semiannual period--five excused excursions.

(3) For the third semiannual period--four excused excursions.

(4) For the fourth semiannual period--three excused excursions.

(5) For the fifth semiannual period--two excused excursions.

(6) For the sixth and all subsequent semiannual periods--one excused excursion.

(C) If a monitored parameter is outside its established range or monitoring data are not collected during periods of start-up, shutdown, or malfunction (and the source is operated during such periods in accordance with the source's start-up, shutdown, and malfunction plan as required by Sec. 63.6(e)(3) of subpart A of this part) or during periods of nonoperation of the chemical manufacturing process unit or portion thereof (resulting in cessation of the emissions to which the monitoring applies), then the excursion is not a violation and, in cases where continuous monitoring is required, the excursion does not count toward the number of excused excursions for determining compliance.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

(D) Nothing in paragraph (c)(2)(ii) of this section shall be construed to allow or excuse a monitoring parameter excursion caused by any activity that violates other applicable provisions of subpart A, F, or G of this part.

(E) Paragraph (c)(2)(ii) of this section, except paragraph (c)(2)(ii)(C) of this section, shall apply only to emission points and control devices or recovery devices for which continuous monitoring is required by Secs. 63.113 through 63.150.

(iii) Periodic Reports shall include the daily average values of monitored parameters for both excused and unexcused excursions, as defined in paragraph (c)(2)(ii)(A) of this section. For excursions caused by lack of monitoring data, the duration of periods when monitoring data were not collected shall be specified.

(iv) The provisions of paragraphs (c)(2), (c)(2)(i), (c)(2)(ii), and (c)(2)(iii) of this section do not apply to any storage vessel for which the owner or operator is not required, by the applicable monitoring plan established under Sec. 63.120(d)(2), to keep continuous records. If continuous records are required, the owner or operator shall specify, in the monitoring plan, whether the provisions of paragraphs (c)(2), (c)(2)(i), (c)(2)(ii), and (c)(2)(iii) of this section apply.

(3) If any performance tests are reported in a Periodic Report, the following information shall be included:

(i) One complete test report shall be submitted for each test method used for a particular kind of emission point tested. A complete test report shall contain the information specified in paragraph (b)(1)(ii) of this section. (ii) For additional tests performed for the same kind of emission point using the same method, results and any other information required in Sec. 63.117 for process vents, Sec. 63.129 for transfer, and Sec. 63.146 for process wastewater shall be submitted, but a complete test report is not required.

(4) Periodic Reports shall include the information in paragraphs (c)(4)(i) through (c)(4)(iv) of this section, as applicable:

(i) For process vents, reports of process changes as required under Sec. 63.118 (g), (h), (i), and (j) of this subpart,

(ii) Any supplements required under Sec. 63.151(i) and (j) of this subpart,

(iii) Notification if any Group 2 emission point becomes a Group 1 emission point, including a compliance schedule as required in Sec. 63.100 of subpart F of this part, and

(iv) For process wastewater streams sent for treatment pursuant to Sec. 63.132 (g), reports of changes in the identity of the treatment facility or transferee.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

(5) The owner or operator of a source shall submit quarterly reports for all emission points included in an emissions average.

(i) The quarterly reports shall be submitted no later than 60 calendar days after the end of each quarter. The first report shall be submitted with the Notification of Compliance Status no later than 5 months after the compliance date specified in Sec. 63.100 of subpart F.

(ii) The quarterly reports shall include the information specified in this paragraph for all emission points included in an emissions average.

(A) The credits and debits calculated each month during the quarter;

(B) A demonstration that debits calculated for the quarter are not more than 1.30 times the credits calculated for the quarter, as required under Sec. 63.150(e)(4) of this subpart.

(C) The values of any inputs to the credit and debit equations in Sec. 63.150 (g) and (h) of this subpart that change from month to month during the quarter or that have changed since the previous quarter;

(D) Results of any performance tests conducted during the reporting period including one complete report for each test method used for a particular kind of emission point as described in paragraph (c)(3) of this section;

(E) Reports of daily average values of monitored parameters for both excused and unexcused excursions as defined in paragraph (c)(2)(ii)(A) of this section. For excursions caused by lack of monitoring data, the duration of periods when monitoring data were not collected shall be specified.

(iii) Paragraphs (c)(2)(i) through (c)(2)(iii) of this section shall govern the use of monitoring data to determine compliance for Group 1 and Group 2 points included in emissions averages. For storage vessels to which the provisions of paragraphs (c)(2)(i) through (c)(2)(iii) of this section do not apply (as specified in paragraph (c)(2)(iv) of this section), the owner or operator is required to comply with the provisions of the applicable monitoring plan, and monitoring records may be used to determine compliance.

(iv) Every fourth quarterly report shall include the following:

(A) A demonstration that annual credits are greater than or equal to annual debits as required by Sec. 63.150(e)(3) of this subpart; and

(B) A certification of compliance with all the emissions averaging provisions in Sec. 63.150 of this subpart.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

(6) The owner or operator of a source shall submit reports quarterly for particular emission points not included in an emissions average under the circumstances described in paragraphs (c)(6)(i) through (c)(6)(v) of this section.

(i) The owner or operator of a source subject to this subpart shall submit quarterly reports for a period of one year for an emission point that is not included in an emissions average if:

(A) The emission point has more excursions, as defined in paragraph (c)(2)(ii) of this section, than the number of excused excursions allowed under paragraph (c)(2)(ii)(B) of this section for a semiannual reporting period; and

(B) The Administrator requests the owner or operator to submit quarterly reports for the emission point.

(ii) The quarterly reports shall include all the information in paragraphs (c)(2)(ii) of this section, applicable to the emission point(s) for which quarterly reporting is required under paragraph (c)(6)(i) of this section. Information applicable to other emission points with in the source shall be submitted in the semiannual reports required under (c)(1) of this section.

(iii) Quarterly reports shall be submitted no latter than 60 calendar days after the end of each quarter.

(iv) After quarterly reports have been submitted for an emission point for one year, the owner or operator may return to semiannual reporting for the emission point unless the Administrator request the owner or operator to continue to submit quarterly reports.

(v) Paragraph (c)(2)(i) through (c)(2)(iii) of this section shall govern the use of the monitoring data to determine compliance for Group 1 emission point. For storage vessels to which the provisions of the paragraphs (c)(2)(i) through (c)(2)(iii) of this section do not apply (as specified in paragraph (c)(2)(iv) of this section), the owner or operator is required to comply with the provisions of the applicable monitoring plan, and monitoring records may be used to determine compliance.

b. The Group 1 internal floating roof HON (40 CFR 63 Subpart G) tanks listed in the Storage Tank Applicable Regulations Table shall comply with the reporting requirements of 40 CFR 63.122(d) as follows:
[40 CFR 63.122]

"(d) An owner or operator who elects to comply with Sec. 63.119(b) of this subpart by using a fixed roof and an internal floating roof or with Sec. 63.119(d) of this subpart by using an external floating roof converted to an internal floating roof shall submit, as part of the Periodic Report required under Sec. 63.152(c) of this subpart, the results of each inspection conducted in accordance with Sec. 63.120(a) of this subpart in which a failure is detected in the control equipment.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

(1) For vessels for which annual inspections are required under Sec. 63.120 (a)(2)(i) or (a)(3)(ii) of this subpart, the specifications and requirements listed in paragraphs (d)(1)(i) through (d)(1)(iii) of this section apply.

(i) 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.

(ii) Except as provided in paragraph (d)(1)(iii) of this section, 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.

(iii) If an extension is utilized in accordance with Sec. 63.120(a)(4) of this subpart, the owner or operator shall, in the next Periodic Report, identify the vessel; include the documentation specified in Sec. 63.120(a)(4) of this subpart; and describe the date the storage vessel was emptied and the nature of and date the repair was made.

(2) For vessels for which inspections are required under Sec. 63.120 (a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of this subpart, the specifications and requirements listed in paragraphs (d)(2)(i) and (d)(2)(ii) of this section apply.

(i) A failure is defined as any time in which the internal floating roof has defects; or the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal (if one has been installed) 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.

(ii) Each Periodic Report required under Sec. 63.152(c) of this subpart 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."

c. The Group 1 external floating roof HON (40 CFR 63 Subpart G) tanks listed in the Storage Tank Applicable Regulations Table shall comply with the reporting requirements of 40 CFR 63.122(e) as follows:
[40 CFR 63.122]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart G (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

"(e) An owner or operator who elects to comply with Sec. 63.119(c) of this subpart by using an external floating roof shall meet the periodic reporting requirements specified in paragraphs (e)(1), (e)(2), and (e)(3) of this section.

(1) The owner or operator shall submit, as part of the Periodic Report required under Sec. 63.152(c) of this subpart, documentation of the results of each seal gap measurement made in accordance with Sec. 63.120(b) of this subpart in which the requirements of Sec. 63.120 (b)(3), (b)(4), (b)(5), or (b)(6) of this subpart are not met. This documentation shall include the information specified in paragraphs (e)(1)(i) through (e)(1)(iv) of this section.

(i) The date of the seal gap measurement.

(ii) The raw data obtained in the seal gap measurement and the calculations described in Sec. 63.120 (b)(3) and (b)(4) of this subpart.

(iii) A description of any condition specified in Sec. 63.120 (b)(5) or (b)(6) of this subpart that is not met.

(iv) A description of the nature of and date the repair was made, or the date the storage vessel was emptied.

(2) If an extension is utilized in accordance with Sec. 63.120(b)(7)(ii) or (b)(8) of this subpart, the owner or operator shall, in the next Periodic Report, identify the vessel; include the documentation specified in Sec. 63.120(b)(7)(ii) or (b)(8) of this subpart, as applicable; and describe the date the vessel was emptied and the nature of and date the repair was made.

(3) The owner or operator shall submit, as part of the Periodic Report required under Sec. 63.152(c) of this subpart, documentation of any failures that are identified during visual inspections required by Sec. 63.120(b)(10) of this subpart. This documentation shall meet the specifications and requirements in paragraphs (e)(3)(i) and (e)(3)(ii) of this section.

(i) 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 the gaskets no longer close off the liquid surface from the atmosphere; or the slotted membrane has more than 10 percent open area.

(ii) Each Periodic Report required under Sec. 63.152(c) of this subpart 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."

7. <u>Specific Control Equipment Operating Conditions</u>: None

8. <u>Alternate Operating Scenarios</u>: None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart CC, National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries:

1. **Operating Limitations:**
   a. Per 40 CFR 63.646(a) each owner or operator of a Group 1 MACT (40 CFR 63 Subpart CC) storage vessel in the Storage Tank Applicable Regulations Table subject to this subpart shall comply with the requirements of Secs. 63.119 through 63.121 except as provided in paragraphs (b) through (l) of this section. The exceptions in 40 CFR 63.646(b) through (l) are listed below:
   [40 CFR 63.646 (b) – (l)]
   "(b) As used in this section, all terms not defined in Sec. 63.641 shall have the meaning given them in 40 CFR part 63, subparts A or G. The Group 1 storage vessel definition presented in Sec. 63.641 shall apply in lieu of the Group 1 storage vessel definitions presented in tables 5 and 6 of Sec. 63.119 of subpart G of this part.
   (1) An owner or operator may use good engineering judgement or test results to determine the stored liquid weight percent total organic HAP for purposes of group determination. Data, assumptions, and procedures used in the determination shall be documented.
   (2) When an owner or operator and the Administrator do not agree on whether the annual average weight percent organic HAP in the stored liquid is above or below 4 percent for a storage vessel at an existing source or above or below 2 percent for a storage vessel at a new source, Method 18 of 40 CFR part 60, appendix A shall be used.
   (c) The following paragraphs do not apply to storage vessels at existing sources subject to this subpart: Sec. 63.119 (b)(5), (b)(6), (c)(2), and (d)(2).
   (d) References shall apply as specified in paragraphs (d)(1) through (d)(10) of this section.
   (1) All references to Sec. 63.100(k) of subpart F of this part (or the schedule provisions and the compliance date) shall be replaced with Sec. 63.640(h),
   (2) All references to April 22, 1994 shall be replaced with August 18, 1995.
   (3) All references to December 31, 1992 shall be replaced with July 15, 1994.
   (4) All references to the compliance dates specified in Sec. 63.100 of subpart F shall be replaced with Sec. 63.640 (h) through (m).
   (5) All references to Sec. 63.150 in Sec. 63.119 of subpart G of this part shall be replaced with Sec. 63.652.
   (6) All references to Sec. 63.113(a)(2) of subpart G shall be replaced with Sec. 63.643(a)(2) of this subpart.
   (7) All references to Sec. 63.126(b)(1) of subpart G shall be replaced with Sec. 63.422(b) of subpart R of this part.
   (8) All references to Sec. 63.128(a) of subpart G shall be replaced with Sec. 63.425, paragraphs (a) through (c) and (e) through (h) of subpart R of this part.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart CC, (Continued):

1. **Operating Limitations (Continued):**

(9) All references to Sec. 63.139(d)(1) in Sec. 63.120(d)(1)(ii) of subpart G are not applicable. For sources subject to this subpart, such references shall mean that 40 CFR 61.355 is applicable.

(10) All references to Sec. 63.139(c) in Sec. 63.120(d)(1)(ii) of subpart G are not applicable. For sources subject to this subpart, such references shall mean that Sec. 63.647 of this subpart is applicable.

(e) When complying with the inspection requirements of Sec. 63.120 of subpart G of this part, owners and operators of storage vessels at existing sources subject to this subpart are not required to comply with the provisions for gaskets, slotted membranes, and sleeve seals.

(f) The following paragraphs (f)(1), (f)(2), and (f)(3) of this section apply to Group 1 storage vessels at existing sources:

(1) If a cover or lid is installed on an opening on a floating roof, the cover or lid shall remain closed except when the cover or lid must be open for access.

(2) Rim space vents are to be set to open only when the floating roof is not floating or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(3) Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(g) Failure to perform inspections and monitoring required by this section shall constitute a violation of the applicable standard of this subpart.

(h) References in Secs. 63.119 through 63.121 to Sec. 63.122(g)(1), Sec. 63.151, and references to initial notification requirements do not apply.

(i) References to the Implementation Plan in Sec. 63.120, paragraphs (d)(2) and (d)(3)(i) shall be replaced with the Notification of Compliance Status report.

(j) References to the Notification of Compliance Status report in Sec. 63.152(b) shall be replaced with Sec. 63.654(f).

(k) References to the Periodic Reports in 63.152(c) shall be replaced with 63.654(g).

(l) The State or local permitting authority can waive the notification requirements of Secs. 63.120(a)(5), 63.120(a)(6), 63.120(b)(10)(ii) and 63.120(b)(10)(iii) for all or some storage vessels at petroleum refineries subject to this subpart. The State or local permitting authority may also grant permission to refill storage vessels sooner than 30 days after submitting the notifications in Secs. 63.120(a)(6) or 63.120(b)(10)(iii) for all storage vessels at a refinery or for individual storage vessels on a case-by-case basis."

b. As referenced by 40 CFR 63.646(a), the permittee shall operate and maintain the appropriate roof for Group 1 MACT (40 CFR 63 Subpart CC) storage vessels in the Storage Tank Applicable Regulations Table, according to 40 CFR 63.119(a)(1) as follows:

"(a) For each storage vessel to which this subpart applies, the owner or operator shall comply with the requirements of paragraphs (a)(1), (a)(2), (a)(3), and (a)(4) of this section according to the schedule provisions of Sec. 63.100 of subpart F of this part.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart CC, (Continued):

1. **Operating Limitations (Continued):**

(1) For each Group 1 storage vessel (as defined in table 5 of this subpart for existing sources and table 6 for new sources) storing a liquid for which the maximum true vapor pressure of the total organic hazardous air pollutants in the liquid is less than 76.6 kilopascals, the owner or operator shall reduce hazardous air pollutants emissions to the atmosphere either by operating and maintaining a fixed roof and internal floating roof, an external floating roof, an external floating roof converted to an internal floating roof, or a closed vent system and control device, or routing the emissions to a process or a fuel gas system in accordance with the requirements in paragraph (b), (c), (d), (e), or (f) of this section, or equivalent as provided in Sec. 63.121 of this subpart."

c. As referenced by 40 CFR 63.646(a), the permittee shall operate the Group 1 MACT (40 CFR 63 Subpart CC) internal floating roof (IFR) tanks in the Storage Tank Applicable Regulations Table according to 40 CFR 63.119(b)(1-4) as follows:
[40 CFR 63.119(b)(1-4)]

"(b) The owner or operator who elects to use a fixed roof and an internal floating roof, as defined in Sec. 63.111 of this subpart, to comply with the requirements of paragraph (a)(1) of this section shall comply with the requirements specified in paragraphs (b)(1) through (b)(6) of this section.

Note: The intent of paragraphs (b)(1) and (b)(2) of this section is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty.

(1) The internal floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports during the periods specified in paragraphs (b)(1)(i) through (b)(1)(iii) of this section.
(i) During the initial fill.
(ii) After the vessel has been completely emptied and degassed.
(iii)When the vessel is completely emptied before being subsequently refilled.

(2) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical.

(3) Each internal floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. Except as provided in paragraph (b)(3)(iv) of this section, the closure device shall consist of one of the devices listed in paragraph (b)(3)(i), (b)(3)(ii), or (b)(3)(iii) of this section.
(i) A liquid-mounted seal as defined in Sec. 63.111 of this subpart.
(ii) A metallic shoe seal as defined in Sec. 63.111 of this subpart.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart CC, (Continued):

1. <u>Operating Limitations (Continued):</u>

(iii) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous seals.

(iv) If the internal floating roof is equipped with a vapor-mounted seal as of December 31, 1992, the requirement for one of the seal options specified in paragraphs (b)(3)(i), (b)(3)(ii), and (b)(3)(iii) of this section does not apply until the earlier of the dates specified in paragraphs (b)(3)(iv)(A) and (b)(3)(iv)(B) of this section.

(A) The next time the storage vessel is emptied and degassed.

(B) No later than 10 years after April 22, 1994.

(4) Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports."

d. As referenced by 40 CFR 63.646(a), the permittee shall operate the Group 1 MACT (40 CFR 63 Subpart CC) external floating roof (EFR) tanks in the Storage Tank Applicable Regulations Table according to 40 CFR 63.119(c)(1, 3,4) as follows:
[40 CFR 63.119(c)(1, 3, 4)]

"(c) The owner or operator who elects to use an external floating roof, as defined in Sec. 63.111 of this subpart, to comply with the requirements of paragraph (a)(1) of this section shall comply with the requirements specified in paragraphs (c)(1) through (c)(4) of this section.

(1) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge.

(i) Except as provided in paragraph (c)(1)(iv) of this section, the closure device is to consist of two seals, one above the other. The lower seal is referred to as the primary seal and the upper seal is referred to as the secondary seal.

(ii) Except as provided in paragraph (c)(1)(v) of this section, the primary seal shall be either a metallic shoe seal or a liquid-mounted seal.

(iii) Except during the inspections required by Sec. 63.120(b) of this subpart, both the primary seal and the secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion.

(iv) If the external floating roof is equipped with a liquid-mounted or metallic shoe primary seal as of December 31, 1992, the requirement for a secondary seal in paragraph (c)(1)(i) of this section does not apply until the earlier of the dates specified in paragraphs (c)(1)(iv)(A) and (c)(1)(iv)(B) of this section.

(A) The next time the storage vessel is emptied and degassed.

(B) No later than 10 years after April 22, 1994.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart CC, (Continued):

1. **Operating Limitations (Continued):**

(v) If the external floating roof is equipped with a vapor-mounted primary seal and a secondary seal as of December 31, 1992, the requirement for a liquid-mounted or metallic shoe primary seal in paragraph (c)(1)(ii) of this section does not apply until the earlier of the dates specified in paragraphs (c)(1)(v)(A) and (c)(1)(v)(B) of this section.

(A) The next time the storage vessel is emptied and degassed.

(B) No later than 10 years after April 22, 1994.

(2) Each external floating roof shall meet the specifications listed in paragraphs (c)(2)(i) through (c)(2)(xii) of this section.

(i) Except for automatic bleeder vents (vacuum breaker vents) and rim space vents, each opening in the noncontact external floating roof shall provide a projection below the liquid surface except as provided in paragraph (c)(2)(xii) of this section.

(ii) Except for automatic bleeder vents, rim space vents, roof drains, and lesleeves, each opening in the roof is to be equipped with a gasketed cover, seal or lid which is to be maintained in a closed position (i.e., no visible gap) at all times except when the cover or lid must be open for access. Covers on each access hatch and each gauge float well shall be bolted or fastened so as to be air-tight when they are closed.

(iii) Automatic bleeder vents are to be closed at all times when the roof is floating, except when the roof is being floated off or is being landed on the roof leg supports.

(iv) Rim space vents are to be set to open only when the roof is being floated off the roof leg supports or when the pressure beneath the rim seal exceeds the manufacturer's recommended setting.

(v) Automatic bleeder vents and rim space vents are to be gasketed.

(vi) Each roof drain that empties into the stored liquid is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.

(vii) Each unslotted guide pole well shall have a gasketed sliding cover or a flexible fabric sleeve seal.

(viii) Each unslotted guide pole shall have on the end of the pole a gasketed cap which is closed at all times except when gauging the liquid level or taking liquid samples.

(ix) Each slotted guide pole well shall have a gasketed sliding cover or a flexible fabric sleeve seal.

(x) Each slotted guide pole shall have a gasketed float or other device which closes off the liquid surface from the atmosphere.

(xi) Each gauge hatch/sample well shall have a gasketed cover which is closed at all times except when the hatch or well must be open for access.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart CC, (Continued):

1. **Operating Limitations (Continued):**

(xii)If each opening in a noncontact external floating roof except for automatic bleeder vents (vacuum breaker vents) and rim space vents does not provide a projection below the liquid surface as of December 31, 1992, the requirement for providing these projections below the liquid surface does not apply until the earlier of the dates specified in paragraphs (c)(2)(xii)(A) and (c)(2)(xii)(B) of this section.

(A) The next time the storage vessel is emptied and degassed.

(B) No later than 10 years after April 22, 1994.

Note: The intent of paragraphs (c)(3) and (c)(4) of this section is to avoid having a vapor space between the floating roof and the stored liquid for extended periods. Storage vessels may be emptied for purposes such as routine storage vessel maintenance, inspections, petroleum liquid deliveries, or transfer operations. Storage vessels where liquid is left on walls, as bottom clingage, or in pools due to floor irregularity are considered completely empty.

(3) The external floating roof shall be floating on the liquid surface at all times except when the floating roof must be supported by the leg supports during the periods specified in paragraphs (c)(3)(i) through (c)(3)(iii) of this section.

(i) During the initial fill.

(ii) After the vessel has been completely emptied and degassed.

(iii)When the vessel is completely emptied before being subsequently refilled.

(4) When the floating roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as soon as practical."

2. **Emission Limitations:**
None

3. **Testing Requirements:**
None

4. **Specific Monitoring Requirements:**

a. As referenced by 40 CFR 63.646(a), the permittee shall demonstrate compliance with 63.119(b) for Group 1 MACT (40 CFR 63 Subpart CC) internal floating roof (IFR) tanks in the Storage Tank Applicable Regulations Table according to 40 CFR 63.120(a)(1-7), ***(omitting provisions for gaskets, slotted membranes, and sleave seals, per 40 CFR 63.646(e))*** as follows:
[40 CFR 63.120(a)(1-7)]
"(a) To demonstrate compliance with Sec. 63.119(b) of this subpart (storage vessel equipped with a fixed roof and internal floating roof) or with Sec. 63.119(d) of this subpart (storage vessel equipped with an external floating roof converted to an internal

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart CC, (Continued):

4. <u>Specific Monitoring Requirements (Continued):</u>

floating roof), the owner or operator shall comply with the requirements in paragraphs (a)(1) through (a)(7) of this section.

(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 (a)(2) and (a)(3) of this section.

(2) For vessels equipped with a single-seal system, the owner or operator shall perform the inspections specified in paragraphs (a)(2)(i) and (a)(2)(ii) of this section.

(i) Visually inspect the internal floating roof and top 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 Sec. 63.100 of subpart F of this part.

(3) For vessels equipped with a double-seal system as specified in Sec. 63.119(b)(3)(iii) of this subpart, the owner or operator shall perform either the inspection required in paragraph (a)(3)(i) of this section or the inspections required in both paragraphs (a)(3)(ii) and (a)(3)(iii) of this section.

(i) The owner or operator shall visually inspect the internal floating roof, the primary seal, and the secondary seal, each time the storage vessel is emptied and degassed and at least once every 5 years after the compliance date specified in Sec. 63.100 of subpart F of this part; or

(ii) The owner or operator 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 Sec. 63.100 of subpart F of this part, 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 Sec. 63.100 of subpart F of this part.

(4) If during the inspections required by paragraph (a)(2)(i) or (a)(3)(ii) of this section, 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; or there are holes or tears in the seal fabric; or there are visible gaps between the seal and the wall of the storage vessel, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 calendar days. If a failure that is detected during inspections required by paragraph (a)(2)(i) or (a)(3)(ii) of this section cannot be repaired within 45 calendar days and if the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart CC, (Continued):

4. <u>Specific Monitoring Requirements (Continued):</u>

control equipment will be repaired or the vessel will be emptied as soon as practical.

(5) Except as provided in paragraph (a)(6) of this section, for all the inspections required by paragraphs (a)(2)(ii), (a)(3)(i), and (a)(3)(iii) of this section, the owner or operator shall notify the Administrator in writing at least 30 calendar days prior to the refilling of each storage vessel to afford the Administrator the opportunity to have an observer present.

(6) If the inspection required by paragraph (a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of this section is not planned and the owner or operator could not have known about the inspection 30 calendar days in advance of refilling the vessel, the owner or operator shall notify the Administrator at least 7 calendar days prior to the refilling of the storage vessel. Notification may be made by telephone and immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the 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 refilling.

(7) If during the inspections required by paragraph (a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of this section, the internal floating roof has defects; or 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 refilling the storage vessel with organic HAP."

b. As referenced by 40 CFR 63.646(a), the permittee shall demonstrate compliance with 63.119(c) for Group 1 MACT (40 CFR 63 Subpart CC) external floating roof (EFR) tanks in the Storage Tank Applicable Regulations Table according to 40 CFR 63.120(b)(1-10), ***(omitting provisions for gaskets, slotted membranes, and sleave seals, per 40 CFR 63.646(e))*** as follows:

[40 CFR 63.120(b)(1-10)]

"(b)To demonstrate compliance with Sec. 63.119(c) of this subpart (storage vessel equipped with an external floating roof), the owner or operator shall comply with the requirements specified in paragraphs (b)(1) through (b)(10) of this section.

(1) Except as provided in paragraph (b)(7) of this section, the owner or operator 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 (b)(1)(i) through (b)(1)(iii) of this section.

(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 Sec. 63.100 of subpart F of this part, whichever occurs last, and at

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart CC, (Continued):

4. <u>Specific Monitoring Requirements (Continued):</u>

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 Sec. 63.119(c)(1)(iv) of this subpart, measurements of gaps between the vessel wall and the primary seal shall be performed by the compliance date specified in Sec. 63.100 of subpart F of this part 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 (b)(1)(i) and (b)(1)(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 Sec. 63.100 of subpart F of this part and at least once per year thereafter.

(iv) If any storage vessel ceases to store organic HAP for a period of 1 year or more, or if the maximum true vapor pressure of the total organic HAP's in the stored liquid falls below the values defining Group 1 storage vessels specified in table 5 or table 6 of this subpart for a period of 1 year or more, measurements of gaps between the vessel wall and the primary seal, and gaps between the vessel wall and the secondary seal shall be performed within 90 calendar days of the vessel being refilled with organic HAP.

(2) Except as provided in paragraph (b)(7) of this section, the owner or operator shall determine gap widths and gap areas in the primary and secondary seals (seal gaps) individually by the procedures described in paragraphs (b)(2)(i) through (b)(2)(iii) of this section.

(i) Seal gaps, if any, shall be measured at one or more floating roof levels when the roof is not resting on the roof leg supports.

(ii) Seal gaps, if any, shall be measured around the entire circumference of the vessel in each place where an 0.32 centimeter (\1/8\ inch) diameter uniform probe passes freely (without forcing or binding against the seal) between the seal and the wall of the storage vessel. The circumferential distance of each such location shall also be measured.

(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 vessel wall to the seal and multiplying each such width by its respective circumferential distance.

(3) The owner or operator shall add the gap surface area of each gap location for the primary seal and divide the sum by the nominal diameter of the vessel. The accumulated area of gaps between the vessel wall and the primary seal shall not

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart CC, (Continued):

4. <u>Specific Monitoring Requirements (Continued):</u>

exceed 212 square centimeters per meter of vessel diameter and the width of any portion of any gap shall not exceed 3.81 centimeters.

(4) The owner or operator shall add the gap surface area of each gap location for the secondary seal and divide the sum by the nominal diameter of the vessel. The accumulated area of gaps between the vessel wall and the secondary seal shall not exceed 21.2 square centimeters per meter of vessel diameter and the width of any portion of any gap shall not exceed 1.27 centimeters. These seal gap requirements may be exceeded during the measurement of primary seal gaps as required by paragraph (b)(1)(i) and (b)(1)(ii) of this section.

(5) The primary seal shall meet the additional requirements specified in paragraphs (b)(5)(i) and (b)(5)(ii) of this section.

(i) Where a metallic shoe seal is in use, one end of the metallic shoe shall extend into the stored liquid and the other end shall extend a minimum vertical distance of 61 centimeters above the stored liquid surface.

(ii) There shall be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.

(6) The secondary seal shall meet the additional requirements specified in paragraphs (b)(6)(i) and (b)(6)(ii) of this section.

(i) The secondary seal shall be installed above the primary seal so that it completely covers the space between the roof edge and the vessel wall except as provided in paragraph (b)(4) of this section.

(ii) There shall be no holes, tears, or other openings in the seal or seal fabric.

(7) If the owner or operator determines that it is unsafe to perform the seal gap measurements required in paragraphs (b)(1) and (b)(2) of this section or to inspect the vessel to determine compliance with paragraphs (b)(5) and (b)(6) of this section because the floating roof appears to be structurally unsound and poses an imminent or potential danger to inspecting personnel, the owner or operator shall comply with the requirements in either paragraph (b)(7)(i) or (b)(7)(ii) of this section.

(i) The owner or operator shall measure the seal gaps or inspect the storage vessel no later than 30 calendar days after the determination that the roof is unsafe, or

(ii) The owner or operator shall empty and remove the storage vessel from service no later than 45 calendar days after determining that the roof is unsafe. If the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include an explanation of why it was unsafe to perform the inspection or seal gap measurement, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the vessel will be emptied as soon as practical.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart CC, (Continued):

4. <u>Specific Monitoring Requirements (Continued):</u>

(8) The owner or operator shall repair conditions that do not meet requirements listed in paragraphs (b)(3), (b)(4), (b)(5), and (b)(6) of this section (i.e., failures) no later than 45 calendar days after identification, or shall empty and remove the storage vessel from service no later than 45 calendar days after identification. If during seal gap measurements required in paragraph (b)(1) and (b)(2) of this section or during inspections necessary to determine compliance with paragraphs (b)(5) and (b)(6) of this section a failure is detected that cannot be repaired within 45 calendar days and if the vessel cannot be emptied within 45 calendar days, the owner or operator may utilize up to 2 extensions of up to 30 additional calendar days each. Documentation of a decision to utilize an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be emptied as soon as practical.

(9) The owner or operator shall notify the Administrator in writing 30 calendar days in advance of any gap measurements required by paragraph (b)(1) or (b)(2) of this section to afford the Administrator the opportunity to have an observer present.

(10) The owner or operator 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; 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 organic HAP.

(ii) Except as provided in paragraph (b)(10)(iii) of this section, for all the inspections required by paragraph (b)(10) of this section, the owner or operator 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 required by paragraph (b)(10) of this section is not planned and the owner or operator could not have known about the inspection 30 calendar days in advance of refilling the vessel with organic HAP, 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. 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."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart CC, (Continued):

5. **Specific Recordkeeping Requirements:**
   a. As referenced by 40 CFR 63.654(i), the permittee shall maintain records of Group determination for MACT (40 CFR 63 Subpart CC) storage tanks in the Storage Tank Applicable Regulations Table in accordance with the requirements of 40 CFR 63.123(a) as follows:
   [40 CFR 63.123]
   "(a)Each owner or operator of a Group 1 or Group 2 storage vessel shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. 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 Secs. 63.119 through 63.123 of this subpart other than those required by this paragraph unless such vessel is part of an emissions average as described in Sec. 63.150 of this subpart."
   b. The permittee shall maintain records for the Group 1 MACT (40 CFR 63 Subpart CC) internal floating roof storage tanks in the Storage Tank Applicable Regulations Table in accordance with the requirements of 40 CFR 63.123(c) as follows:
   [40 CFR 63.123]
   "(c) An owner or operator who elects to comply with Sec. 63.119(b) of this subpart shall keep a record that each inspection required by Sec. 63.120(a) of this subpart was performed."
   c. The permittee shall maintain records for the Group 1 MACT (40 CFR 63 Subpart CC) external floating roof storage tanks in the Storage Tank Applicable Regulations Table in accordance with the requirements of 40 CFR 63.123(d) as follows:[40 CFR 63.123]
   "(d) An owner or operator who elects to comply with Sec. 63.119(c) of this subpart shall keep records describing the results of each seal gap measurement made in accordance with Sec. 63.120(b) of this subpart. The records shall include the date of the measurement, the raw data obtained in the measurement, and the calculations described in Sec. 63.120(b) (3) and (4) of this subpart."
6. **Specific Reporting Requirements:**
   a. The MACT (40 CFR 63 Subpart CC) storage vessels listed in the Storage Tank Applicable Regulations Table shall comply with the reporting requirements of 401 KAR 63:640 (40 CFR 63.654(g)(1-3) as follows:
   [40 CFR 63.654]
   "(g) The owner or operator of a source subject to this subpart shall submit Periodic Reports no later than 60 days after the end of each 6-month period when any of the compliance exceptions specified in paragraphs (g)(1) through (g)(6) of this section occur. The first 6-month period shall begin on the date the Notification of Compliance Status report is required to be submitted. A Periodic Report is not required if none of the compliance exceptions specified in paragraphs (g)(1) through (g)(6) of this section occurred during the 6-month period unless emissions averaging is utilized.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart CC, (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

Quarterly reports must be submitted for emission points included in emissions averages, as provided in paragraph (g)(8) of this section. An owner or operator may submit reports required by other regulations in place of or as part of the Periodic Report required by this paragraph if the reports contain the information required by paragraphs (g)(1) through (g)(8) of this section.

(1) For storage vessels, Periodic Reports shall include the information specified for Periodic Reports in paragraph (g)(2) through (g)(5) of this section except that information related to gaskets, slotted membranes, and sleeve seals is not required for storage vessels that are part of an existing source.

(2) An owner or operator who elects to comply with Sec. 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 shall submit the results of each inspection conducted in accordance with Sec. 63.120(a) of subpart G of this part in which a failure is detected in the control equipment.

(i) For vessels for which annual inspections are required under Sec. 63.120(a)(2)(i) or (a)(3)(ii) of subpart G of this part, the specifications and requirements listed in paragraphs (g)(2)(i)(A) through (g)(2)(i)(C) of this section 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 (g)(2)(i)(C) of this section, 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 Sec. 63.120(a)(4) of subpart G of this part, the owner or operator shall, in the next Periodic Report, identify the vessel; include the documentation specified in Sec. 63.120(a)(4) of subpart G of this part; and describe the date the storage vessel was emptied and the nature of and date the repair was made.

(ii) For vessels for which inspections are required under Sec. 63.120(a)(2)(ii), (a)(3)(i), or (a)(3)(iii) of subpart G of this part (i.e., internal inspections), the specifications and requirements listed in paragraphs (g)(2)(ii)(A) and (g)(2)(ii)(B) of this section apply.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart CC, (Continued):

6. <u>Specific Reporting Requirements(Continued):</u>

(A) A failure is defined as any time in which the internal floating roof has defects; or the primary seal has holes, tears, or other openings in the seal or the seal fabric; or the secondary seal (if one has been installed) 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 a 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.

(3) An owner or operator who elects to comply with Sec. 63.646 by using an external floating roof shall meet the periodic reporting requirements specified in paragraphs (g)(3)(i) through (g)(3)(iii) of this section.

(i) The owner or operator shall submit, as part of the Periodic Report, documentation of the results of each seal gap measurement made in accordance with Sec. 63.120(b) of subpart G of this part in which the seal and seal gap requirements of Sec. 63.120(b)(3), (b)(4), (b)(5), or (b)(6) of subpart G of this part are not met. This documentation shall include the information specified in paragraphs (g)(3)(i)(A) through (g)(3)(i)(D) of this section.

(A) The date of the seal gap measurement.

(B) The raw data obtained in the seal gap measurement and the calculations described in Sec. 63.120(b)(3) and (b)(4) of subpart G of this part.

(C) A description of any seal condition specified in Sec. 63.120(b)(5) or (b)(6) of subpart G of this part that is not met.

(D) 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 Sec. 63.120(b)(7)(ii) or (b)(8) of subpart G of this part, the owner or operator shall, in the next Periodic Report, identify the vessel; include the documentation specified in Sec. 63.120(b)(7)(ii) or (b)(8) of subpart G of this part, as applicable; and describe the date the vessel was emptied and the nature of and date the repair was made.

(iii) The owner or operator shall submit, as part of the Periodic Report, documentation of any failures that are identified during visual inspections required by Sec. 3.120(b)(10) of subpart G of this part. This documentation shall meet the specifications and requirements in paragraphs (g)(3)(iii)(A) and (g)(3)(iii)(B) of this section.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

40 CFR 63 Subpart CC, (Continued):

6. <u>Specific Reporting Requirements(Continued):</u>

(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."

7. <u>Specific Control Equipment Operating Conditions</u>:
None

8. <u>Alternate Operating Scenarios</u>:
None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

STORAGE TANKS WITH SYNTHETIC MINOR EMISSION LIMITATIONS:

DESCRIPTION :

Emission Unit	Refinery ID
T081	1-6-T-81
T152	1-6-T-152
T701	2-606-T-701
T702	2-606-T-702
T733	2-606-T-733
T734	2-606-T-734
T783	2-606-T-783
T821	2-606-T-821
T845	2-606-T-845
T855	2-606-T-855
T856	2-606-T-856
T910	2-606-T-910

1. **Operating Limitations:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

STORAGE VESSELS (Continued):

STORAGE TANKS WITH SYNTHETIC MINOR EMISSION LIMITATIONS (Continued):

2. **Emission Limitations**:
The source has elected to accept permit conditions to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration, and 401 KAR 51:052, Review of New Sources. Relaxation of limitations on the capacity to emit of the equipment which were established to preclude the applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, or 401 KAR 51:052, Review of new sources in or impacting upon nonattainment areas, is prohibited unless the applicable provisions of these regulations have been satisfied. Alternatively, the permittee may submit documentation that a proposed activity would not cause the change authorized to become classified as a major modification pursuant to 401 KAR 51:017 or 51:052. The "synthetic minor" emission limitations are as follows: [Permit VF-02-001 (Revision 3)]

VOC emissions from the above storage vessels shall not exceed 51.9 tons per year, excluding emissions from equipment leaks, and based on a 12-month rolling sum, calculated monthly.

Compliance Demonstration Method:
The permittee shall calculate for each calendar month, in tons per year, the rolling 12-month VOC emissions using the emission calculation methodology in the latest version of EPA's AP-42 emission factor compilation, Chapter 7.

3. **Testing Requirements:**
None

4. **Specific Monitoring Requirements:**
None

5. **Specific Recordkeeping Requirements:**
None

6. **Specific Reporting Requirements:**
Refer to Section F.8 and F.9.

7. **Specific Control Equipment Operating Conditions:**
None

8. **Alternate Operating Scenarios:**
None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

Emission Point GWT001, General Wastewater Treatment:

Description: The equipment listed below and this section of the permit, apply to the overall sewer system. Emission Point BWT001, Benzene Wastewater Treatment System, addresses the equipment and regulations relating to MACT and NESHAPS regulations for Benzene containing wastewater streams at the facility.

Refinery ID	Description	Date Commenced
--	Collection Systems Upstream of Main Splitter Box (sealed – negligible emissions) • No. 2 Refinery • South Area (SA) Sump • Interplant Pump (IP) Pit • New North Area (NNA) • HF Alkalization (HF Alky)	Various
--	Main Splitter Box (sealed – negligible emissions)	Unknown
2-604-DD-13	Middle API Separator	1962
2-604-DD-14	North API Separator	1986
2-604-DD-15	South API Separator	1970
	Wet Pit #4	Unknown
2-604-DD-1	Equalization Tank	1974
2-607-F-12	DAF Unit	1986
	CB-11 Pump Pit	1986
2-607-DD-16	Aeration Basin	2002
2-607-DD-17	Aeration Basin	2002
	CB-6 Splitter Box	2002
2-607-DD-18	Clarifier	2002
2-607-DD-19	Clarifier	2002
2-607-DD-20	Biological Sludge Tank	Reconstructed 2002
	Parschall Flume	2002
2-607-DD-9	Filter Press Fly Ash Silo	1976

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

Emission Point GWT001, General Wastewater Treatment:

Refinery ID	Description	Date Commenced
2-607-DD-10	Filter Press Lime Silo	1976
2-607-DD-12	Filter Press Ferric Chloride Tank	1976
--	Wet surface air cooler (WSAC)	unknown
--	Centrifuge and LTTD Dewatering System: • Mix tank • Centrifuge, auger box, screw conveyor • LTTD thermal dryer with vapor recovery system • Screw conveyor and roll-off containers • Centrate weir tank (oil-water separator)	2003
2-106-TK-703	Foul Water Surge Tank (1,827,000 gal fixed roof) – fuel gas blanketed, no emissions	2002
2-106-TK-704	Foul Water Surge Tank (1,827,000 gal fixed roof) – fuel gas blanketed, no emissions	1981
2-606-T-718	DAF Sludge Tank (420,000 gal external floating roof)	1970
2-606-T-729	WWT Surge Tank (1,848,000 gal external floating roof)	1972
2-607-T-822	WWT Surge Tank (6,300,000 gal external floating roof)	1978
2-607-T-823	WWT Surge Tank (5,418,000 gal external floating roof)	2004
2-607-T-829	Foul Water Surge Tank (252,000 gal fixed roof)	1981
2-606-T-853	RCC Wastewater Tank (588,000 gal fixed roof)	1982
2-606-T-858	WWT Surge Tank (6,667,5000 gal external floating roof)	1990

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS: (CONTINUED)

Emission Point GWT001, General Wastewater Treatment (Continued):

APPLICABLE REGULATIONS:

401 KAR 59:095	New Oil-Effluent Water Separators The standards and requirements for oil-effluent water separators in 40 CFR 60 Subpart QQQ are more stringent than the standards and requirements in 401 KAR 59:095 and 61:045. Therefore, monitoring of oil-effluent water separators per the requirements in 40 CFR 60 Subpart QQQ is deemed compliance with any of these regulations.
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart QQQ	Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems
401 KAR 61:045	Existing Oil-Effluent Water Separators. The standards and requirements for oil-effluent water separators in 40 CFR 60 Subpart QQQ are more stringent than the standards and requirements in 401 KAR 59:095 and 61:045. Therefore, monitoring of oil-effluent water separators per the requirements in 40 CFR 60 Subpart QQQ is deemed compliance with any of these regulations.
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart G	National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemicals Manufacturing Industry

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS: (CONTINUED)

Emission Point GWT001, General Wastewater Treatment (Continued):

1. **Operating Limitations:**
   a. 40 CFR 60 Subpart QQQ is applicable to a number of individual drain systems in the refinery including drains and junction boxes from the areas down to the API separators. The refinery shall maintain a list of all QQQ affected individual drain system components. The affected Individual Drain Systems shall operate according to the applicable sections of 40 CFR 60.692-2 (a)(1), (b)(1), (b)(2), and (c)(1) as follows:

   [40 CFR 60.692-2]
   "(a)(1) Each drain shall be equipped with water seal controls.
   (b) (1) Junction boxes shall be equipped with a cover and may have an open vent pipe. The vent pipe shall be at least 90 cm (3 ft) in length and shall not exceed 10.2 cm (4 in) in diameter.
   (2) Junction box covers shall have a tight seal around the edge and shall be kept in place at all times, except during inspection and maintenance.
   (c) (1) Sewer lines shall not be open to the atmosphere and shall be covered or enclosed in a manner so as to have no visual gaps or cracks in joints, seals, or other emission interfaces."

   b. API Separators (2-604-DD-13, 14, 15):
   The permittee shall operate the fixed roof portions of the API Separators, according to 40 CFR 60.692-3(a)(1), (a)(2), (a)(3), (c)(1), (c)(2), (e), and (f) as follows:

   [40 CFR 60.692-3]
   "(a) Each oil-water separator tank, slop oil tank, storage vessel, or other auxiliary equipment subject to the requirements of this subpart shall be equipped and operated with a fixed roof, which meets the following specifications, except as provided in paragraph (d) of this section or in Sec. 60.693-2.
   (1) The fixed roof shall be installed to completely cover the separator tank, slop oil tank, storage vessel, or other auxiliary equipment with no separation between the roof and the wall.
   (2) The vapor space under a fixed roof shall not be purged unless the vapor is directed to a control device.
   (3) If the roof has access doors or openings, such doors or openings shall be gasketed, latched, and kept closed at all times during operation of the separator system, except during inspection and maintenance."
   "(c)(1) Each modified or reconstructed oil-water separator tank with a maximum design capacity to treat less than 38 liters per second (600 gpm) of refinery wastewater which was equipped and operated with a fixed roof covering the entire separator tank or a portion of the separator tank prior to May 4, 1987 shall be exempt from the requirements of paragraph (b) of this section, but shall meet the requirements of

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS: (CONTINUED)

Emission Point GWT001, General Wastewater Treatment (Continued):

1. **Operating Limitations (Continued):**

paragraph (a) of this section, or may elect to comply with paragraph (c)(2) of this section.

(2) The owner or operator may elect to comply with the requirements of paragraph (a) of this section for the existing fixed roof covering a portion of the separator tank and comply with the requirements for floating roofs in Sec. 60.693-2 for the remainder of the separator tank."

"(e) Slop oil from an oil-water separator tank and oily wastewater from slop oil handling equipment shall be collected, stored, transported, recycled, reused, or disposed of in an enclosed system. Once slop oil is returned to the process unit or is disposed of, it is no longer within the scope of this subpart. Equipment used in handling slop oil shall be equipped with a fixed roof meeting the requirements of paragraph (a) of this section."

"(f) Each oil-water separator tank, slop oil tank, storage vessel, or other auxiliary equipment that is required to comply with paragraph (a) of this section, and not paragraph (b) of this section, may be equipped with a pressure control valve as necessary for proper system operation. The pressure control valve shall be set at the maximum pressure necessary for proper system operation, but such that the value will not vent continuously."

c. Floating Roof Oil-Water Separators (2-606-T-729, 2-607-T-822, 2-607-T-823, 2-606-T-858) and API Separators (2-604-DD-13, 14, 15)

The permittee shall operate the floating roof oil water separator tanks and the floating roof portions of the API separators according to 40 CFR 60.693-2 (a)(1), (2), (3), (4) as follows:

"(a) An owner or operator may elect to construct and operate a floating roof on an oil-water separator tank, slop oil tank, storage vessel, or other auxiliary equipment subject to the requirements of this subpart which meets the following specifications.

(1) Each floating roof shall be equipped with a closure device between the wall of the separator and the roof edge. The closure device is to consist of a primary seal and a secondary seal.

(i) The primary seal shall be a liquid-mounted seal or a mechanical shoe seal.

(A) A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the separator and the floating roof. A mechanical shoe seal means a metal sheet held vertically against the wall of the separator by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(B) The gap width between the primary seal and the separator wall shall not exceed 3.8 cm (1.5 in.) at any point.

(C) The total gap area between the primary seal and the separator wall shall not exceed 67 cm^2/m (3.2 in^2/ft) of separator wall perimeter.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS: (CONTINUED)

Emission Point GWT001, General Wastewater Treatment (Continued):

1. **Operating Limitations (Continued):**

(ii) The secondary seal shall be above the primary seal and cover the annular space between the floating roof and the wall of the separator.

(A) The gap width between the secondary seal and the separator wall shall not exceed 1.3 cm (0.5 in.) at any point.

(B) The total gap area between the secondary seal and the separator wall shall not exceed 6.7 cm^2/m (0.32 in^2/ft) of separator wall perimeter.

(iii) The maximum gap width and total gap area shall be determined by the methods and procedures specified in Sec. 60.696(d).

(A) Measurement of primary seal gaps shall be performed within 60 calendar days after initial installation of the floating roof and introduction of refinery wastewater and once every 5 years thereafter.

(B) Measurement of secondary seal gaps shall be performed within 60 calendar days of initial introduction of refinery wastewater and once every year thereafter.

(iv) The owner or operator shall make necessary repairs within 30 calendar days of identification of seals not meeting the requirements listed in paragraphs (a)(1)(i) and (ii) of this section.

(2) Except as provided in paragraph (a)(4) of this section, each opening in the roof shall be equipped with a gasketed cover, seal, or lid, which shall be maintained in a closed position at all times, except during inspection and maintenance.

(3) The roof shall be floating on the liquid (i.e., off the roof supports) at all times except during abnormal conditions (i.e., low flow rate).

(4) The floating roof may be equipped with one or more emergency roof drains for removal of storm water. Each emergency roof drain shall be fitted with a slotted membrane fabric cover that covers at least 90 percent of the drain opening area or a flexible fabric sleeve seal."

Compliance Demonstration Method:
For compliance with the operating limitations, see 4. Specific Monitoring Requirements, 5. Specific Record Keeping Requirements and 6. Specific Reporting Requirements, below.

2. **Emission Limitations:**
None

3. **Testing Requirements:**
None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS: (CONTINUED)

Emission Point GWT001, General Wastewater Treatment (Continued):

4. <u>Specific Monitoring Requirements</u>:

a. The permittee shall monitor the affected individual drain systems according to the requirements of 40 CFR 60.692-2 (a)(2), (b)(3), and (c)(2) as follows:
[40 CFR 60.692]
"(a)(2) Each drain in active service shall be checked by visual or physical inspection initially and monthly thereafter for indications of low water levels or other conditions that would reduce the effectiveness of the water seal controls.
"(b)(3) Junction boxes shall be visually inspected initially and semiannually thereafter to ensure that the cover is in place and to ensure that the cover has a tight seal around the edge."
" (c)(2) The portion of each unburied sewer line shall be visually inspected initially and semiannually thereafter for indication of cracks, gaps, or other problems that could result in VOC emissions."

b. <u>API Separators (2-604-DD-13, 14, 15):</u>
The permittee shall monitor the floating roof portions of the API Separators according to Alternative Standards for oil-water separators found in 40 CFR 60.693-2(a)(1)(iii)(A), (B), as follows:
[40 CFR 60.693-2]
"(a) An owner or operator may elect to construct and operate a floating roof on an oil-water separator tank, slop oil tank, storage vessel, or other auxiliary equipment subject to the requirements of this subpart which meets the following specifications.
(1) Each floating roof shall be equipped with a closure device between the wall of the separator and the roof edge. The closure device is to consist of a primary seal and a secondary seal...
(iii)The maximum gap width and total gap area shall be determined by the methods and procedures specified in §60.696(d).
(A) Measurement of primary seal gaps shall be performed within 60 calendar days after initial installation of the floating roof and introduction of refinery waste water and once every 5 years thereafter.
(B) Measurement of secondary seal gaps shall be performed within 60 calendar days of initial introduction of the refinery waste water and once every year thereafter."

c. <u>Floating Roof Oil-Water Separators (2-606-T-729, 2-607-T-822, 2-607-T-823, 2-606-T-858) and API Separators (2-604-DD-13, 14, 15)</u>
The permittee shall monitor the floating roof oil water separator tanks and the floating roof portions of the API separators according to 40 CFR 60.693-2 (a)(5)(i) as follows:
[40 CFR 60.693-2]
"(a)(5)(i) Access doors and other openings shall be visually inspected initially and semiannually thereafter to ensure that there is a tight fit around the edges and to identify other problems that could result in VOC emissions."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS: (CONTINUED)

Emission Point GWT001, General Wastewater Treatment (Continued):

5. <u>Specific Recordkeeping Requirements</u>:

a. The affected individual drain systems shall comply with the recordkeeping requirements of 40 CFR 60.697(a), (b)(1), (2) and (3) as follows:

[40 CFR 60.697]

"(a) Each owner or operator of a facility subject to the provisions of this subpart shall comply with the recordkeeping 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 Sec. 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 Sec. 60.692-2, the location, date, and corrective action shall be recorded for inspections required by Sec. 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."

b. <u>API Separators (2-604-DD-13, 14, 15):</u>

The permittee shall comply with recordkeeping requirements for the fixed roof portions of the API Separators, according to 40 CFR 60.697(a), and (c) as follows:

[40 CFR 60.697]

"(a) Each owner or operator of a facility subject to the provisions of this subpart shall comply with the recordkeeping requirements of this section. All records shall be retained for a period of 2 years after being recorded unless otherwise noted."

"(b) For oil-water separators subject to Sec. 60.693-2, the location, date, and corrective action shall be recorded for inspections required by Sec. 60.693-2(a)(1)(iii)(A) and (B) and shall be maintained for the time period specified in the 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 inspection required by 60.693-2(a)(1)(iii)(B), two years after the information is recorded."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS: (CONTINUED)

Emission Point GWT001, General Wastewater Treatment (Continued):

5. <u>Specific Recordkeeping Requirements Continued</u>:

c. The affected facilities shall comply with the general recordkeeping requirements according to 40 CFR 60.697 (e) and (f)(1), and (2) as follows:

[40 CFR 60.697]

"(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."

6. <u>Specific Reporting Requirements</u>:

a. The permittee shall comply with the general reporting requirements as required by 40 CFR 60.698 (b)(1) and (c), as follows:

[40 CFR 60.698]

"(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..."

"(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."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS: (CONTINUED)

Emission Point GWT001, General Wastewater Treatment (Continued):

7. **Specific Control Equipment Operating Conditions:**
   None

8. **Alternate Monitoring Scenarios:**
   None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

Emission Point BWT001, Benzene Wastewater Treatment:

Description: The equipment listed below and this section of the permit, apply to Emission Point BWT001, Benzene Wastewater Treatment System, and addresses the equipment and regulations relating to MACT and NESHAPS regulations for Benzene containing wastewater streams at the facility.

Refinery ID	Contents Description	Capacity (gal)	Tank Type
CP #1	#1 CPI Unit		Out of service
CP #2	#2 CPI Unit		Out of service
2-40	Benzene Recovery Unit (BRU) w/Stripper System		N/A
2-607-T-35	DAF Oil Skimmings	1,764,000	Out of service
2-607-T-36	DAF Oil Skimmings	1,764,000	Out of service
1-7-T-48	Rerun	146,370	IFR
1-7-T-49	Rerun	146,370	IFR
1-7-T-55	Rerun	146,370	IFR
2-606-T-709	WORF Tank	40,320	Out of service
2-606-T-717	WORF Tank	40,320	Out of service
2-606-T-860	Temporary slop oil/wastewater	1,260,000	IFR
2-606-T-890	Equalization Tank	2,520,000	IFR
2-606-T-894	Slop Oil Tank	1,092,000	IFR
VBT-14	Viney Branch Truck Heel Recovery Slop Oil Tank	12,000	FR, controlled by carbon canisters
N/A	Viney Branch Truck Heel Revovery Individual Drain System		N/A
TBD	Viney Branch Truck Heel Recovery System Containers (portable containers)		Submerged fill lines for containers and controlled by carbon canisters

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

REGULATORY CLARIFICATIONS:

The refinery maintains a segregated, controlled wastewater drain and treatment system comprised of the above major equipment. The standards of 40 CFR 61 Subpart FF (Benzene Waste Operations NESHAPS) are applicable to this equipment and to the management of all organic and aqueous waste which contains benzene at the facility. This regulation applies to the waste streams from their point of generation (where it exits the refinery process unit) down to the point at which it receives treatment. Some streams must be handled in a manner to control their emissions and other streams can be handled uncontrolled. The regulation contains standards for equipment associated with the controls and treatment of those streams being handled as "controlled". The regulation specifies certain recordkeeping and reporting requirements for those streams that are handled as "uncontrolled".

The Viney Branch Truck Heel Recovery Slop Oil Tank receives off-site materials as defined in 40 CFR 63 Subpart DD, section 63.680(b), and is therefore subject to the standards contained in 40 CFR 63 Subpart DD. Pursuant to 40 CFR 63.683(c)(1), this off-site material management unit is exempted from the requirements specified in 40 VFR 63.683(b), since the tank is also subject to 40 CFR 61 Subpart FF, and the permitte is controllin the HAPa listed in Table 1 of 40 CFR 63 Subpart DD that are emitted from the unit in compliance wiht hte provisions specified in 40 CFR 61 Subpart FF.

The standards and requirements for 40 CFR Subpart CC for wastewater treatment are identical to and reference the standards provided in 40 CFR 61 Subpart FF. Therefore compliance with the standards of 40 CFR 41 Subpart FF is deemed compliance with 40 CFR 63 Subpart CC.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment:

APPLICABLE REGULATIONS:

401 KAR 59:095	New Oil-Effluent Water Separators
401 KAR 67:002 incorporating by reference 40 CFR 61 Subpart FF	National Emission Standards for Benzene Waste Operations 40 CFR 61 Subpart FF is applicable to the refinery because the Total Annual Benzene (TAB) quantity, representing the amount of benzene in the waste, is greater than 10 Mg/yr. The refinery has selected the benzene waste compliance option provided in 40 CFR 61.342 (e) which allows the following: Organic waste with less than 10 ppmw benzene does not require control or treatment (40 CFR 61.342(c)(2)). Aqueous waste, containing any level of benzene, unless controlled and treated must be counted towards the facilities Target Benzene Quantity (TBQ) which must not exceed 6 Mg/yr of uncontrolled benzene quantity (40 CFR 61.342 (e)). There are a large number of waste streams in the refinery, which contain benzene. The refinery must maintain records of these streams and annually report the past year's Total Annual Benzene (TAB) quantity representing all benzene in waste streams and the past year's Benzene Quantity (BQ) representing the total benzene quantity of all aqueous waste streams not handled in a controlled manner in accordance with the specifications of this regulations (40 CFR 61.357). For most waste streams, which require controls, generally those with the highest benzene quantity, the refinery operates a segregated drain system, maintained in accordance with the control and treatment requirements of 40 CFR 61 Subpart FF. This benzene waste system consists of a number of drains routed to junction boxes/lift stations, which are then routed to an above ground pressurized sewer line. This is routed to Tank 890, BRU feed surge tank, and finally to a benzene removal unit (BRU). Streams that are managed in this benzene wastewater system are considered controlled, and do not need to be counted in the BQ. This system uses individual drain systems, tanks, oil water separators, containers, treatment processes, closed vent systems and control devices. These components of this controlled system must comply with the control requirements of 40 CFR 61 Subpart FF. Specific equipment and limitations are listed in the permit.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

APPLICABLE REGULATIONS (CONTINUED):

401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart G	National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemicals Manufacturing Industry Compliance with 40 CFR 61 Subpart FF is deemed to be compliance with the wastewater provisions of 40 CFR 63 Subpart G.
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart CC	National Emission Standards for Organic Hazardous Air Pollutants from Petroleum Refineries The standards and requirements for 40 CFR 63 Subpart CC for wastewater treatment are identical to and reference the standards provided in 40 CFR 61 Subpart FF. Therefore compliance with the standards of 40 CFR 61 Subpart FF is deemed compliance with 40 CFR 63 Subpart CC. The standards and requirements 40 CFR 61 Subpart FF are more stringent than the standards and requirements in 401 KAR 59:095. Therefore, monitoring per the requirements in regulation 40 CFR 61 Subpart FF is deemed compliance with 401 KAR 59:095.
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart DD	National Emission Standards for Organic Hazardous Air Pollutants from Off-Site Waste and Recovery Operations

NON-APPLICABLE REGULATIONS:

401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart BB	National Emission Standards for Benzene Emissions from Benzene Transfer Operations Per 40 CFR 61.300(a), loading racks at which benzene-laden waste are exempt from Subpart BB, and instead are covered under 40 CFR 61 Subpart FF.
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984 Per 40 CFR 60.100b(a), storage vessels with a capacity less than 75 m^3 (19,800 gal) are not subject to the rule.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

1. **Operating Limitations:**
   a. The permittee shall operate tanks 1-7-T-48, 1-7-T-49, 1-7-T-55, 2-606-T-860, 2-606-T-890 and 2-606-T-894 according to the requirements of 40 CFR 61.351(a)(1) which references the requirements of 40 CFR 60.112b(a)(1) as follows:
   [40 CFR 60.112b]
   "(a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m^3 but less than 151 m^3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:
   (1) A fixed roof in combination with an internal floating roof meeting the following specifications:
   (i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When theroof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
   (ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:
   (A) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.
   (B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.
   (C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.
   (iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

1. **Operating Limitations (Continued):**

(iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover."

b. Tanks 2-106-T-703, 2-106-T-704 and 2-606-T-829, the Foul Water Surge tanks shall comply with 40 CFR 61.343(a)(1)(i)(A). Gases from these tanks are sent to a fuel gas system and are therefore exempt from Subpart FF according to 40 CFR 61.340(d). Viney Branch Truck Heel Recovery Slop Oil Tank shall comply with 40 CFR 61.343(a)(1)(i)(A) and (B), and 61.343(a)(1)(ii) as follows:
[40 CFR 61.343]

"(a) Except as provided in paragraph (b) of 40 CFR 61.343 and in Sec. 61.351, the owner or operator shall meet the following standards for each tank in which the waste stream is placed in accordance with Sec. 61.342 (c)(1)(ii). The standards in this section apply to the treatment of the waste stream in a tank, including dewatering.

(1) The owner or operator shall install, operate, and maintain a fixed-roof and closed vent system that routes all organic vapors vented from the tank to a control device.

(i) The fixed-roof shall meet the following requirements:

(A) The cover and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in Sec. 61.355(h) of this subpart.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

1. **Operating Limitations (Continued):**

(B) Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair.

(ii) The closed vent system and control device shall be designed and operated in accordance with requirements of Section 61.349."

c. The permittee shall maintain a list of all containers subject to 40 CFR 61 Subpart FF, and the permittee shall operate Subpart FF applicable containers according to the requirements of 40 CFR 61.345(a)(1) and (a)(2) as follows:

[40 CFR 61.345]

"(a) The owner or operator shall meet the following standards for each container in which waste is placed in accordance with Sec. 61.342(c)(1)(ii) of this subpart:

(1) The owner or operator shall install, operate, and maintain a cover on each container used to handle, transfer, or store waste in accordance with the following requirements:

(i) The cover and all openings (e.g., bungs, hatches, and sampling ports) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in Sec. 61.355(h) of this subpart.

(ii) Except as provided in paragraph (a)(4) of this section, each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the container except when it is necessary to use the opening for waste loading, removal, inspection, or sampling.

(2) When a waste is transferred into a container by pumping, the owner or operator shall perform the transfer using a submerged fill pipe. The submerged fill pipe outlet shall extend to within two fill pipe diameters of the bottom of the container while the container is being loaded. During loading of the waste, the cover shall remain in place and all openings shall be maintained in a closed, sealed position except for those openings required for the submerged fill pipe, those opening required for venting of the container to prevent physical damage or permanent deformation of the container or cover, and any openings complying with paragraph (a)(4) of this section."

d. The permittee shall maintain a list of all drain system components being maintained in a controlled manner to provide compliance with 40 CFR 61 Subpart FF. All affected individual drain systems shall comply with the applicable sections of 40 CFR 61.346(b)(1-3) as listed below:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

1. <u>Operating Limitations (Continued):</u>

[40 CFR 61.346]

"(b) As an alternative to complying with paragraph (a) of this section, an owner or operator may elect to comply with the following requirements:

(1) Each drain shall be equipped with water seal controls or a tightly sealed cap or plug.

(2) Each junction box shall be equipped with a cover and may have a vent pipe. The vent pipe shall be at least 90 cm (3 ft) in length and shall not exceed 10.2 cm (4 in) in diameter.

(i) Junction box covers shall have a tight seal around the edge and shall be kept in place at all times, except during inspection and maintenance.

(ii) One of the following methods shall be used to control emissions from the junction box vent pipe to the atmosphere:

(A) Equip the junction box with a system to prevent the flow of organic vapors from the junction box vent pipe to the atmosphere during normal operation. An example of such a system includes use of water seal controls on the junction box. A flow indicator shall be installed, operated, and maintained on each junction box vent pipe to ensure that organic vapors are not vented from the junction box to the atmosphere during normal operation.

(B) Connect the junction box vent pipe to a closed-vent system and control device in accordance with Sec. 61.349 of this subpart.

(3) Each sewer line shall not be open to the atmosphere and shall be covered or enclosed in a manner so as to have no visual gaps or cracks in joints, seals, or other emission interfaces."

e. The affected treatment process (Benzene Recovery Unit - BRU) shall operate according to 40 CFR 61.348(a)(1)(i) as follows:
[40 CFR 61.348]

"(a) Except as provided in paragraph (a)(5) of this section, the owner or operator shall treat the waste stream in accordance with the following requirements:

(1) The owner or operator shall design, install, operate, and maintain a treatment process that either:

(i) Removes benzene from the waste stream to a level less than 10 parts per million by weight (ppmw) on a flow-weighted annual average basis,".

f. The permittee shall maintain a list of all closed vent system components being maintained in a controlled manner to provide compliance with 40 CFR 61 Subpart FF. The affected closed vent systems and control devices (BRU carbon adsorbers and carbon canisters) shall operate according to 40 CFR 61.349(a)(1)(i, iii, iv), (a)(2)(ii), and (b), as follows:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

1. <u>Operating Limitations (Continued):</u>

[40 CFR 61.349]

"a) For each closed-vent system and control device used to comply with standards in accordance with §§61.343 through 61.348 of this subpart, the owner or operator shall properly design, install, operate, and maintain the closed-vent system and control device in accordance with the following requirements:

(1) The closed-vent system shall:

(i) Be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h) of this subpart."

"(iii) All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

(iv) For each closed-vent system complying with paragraph (a) of this section, one or more devices which vent directly to the atmosphere may be used on the closed-vent system provided each device remains in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the closed-vent system resulting from malfunction of the unit in accordance with good engineering and safety practices for handling flammable, explosive, or other hazardous materials."

"(2) The control device shall be designed and operated in accordance with the following conditions:"

"(ii) A vapor recovery system (e.g., a carbon adsorption system or a condenser) shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater…."

"(b) Each closed-vent system and control device used to comply with this subpart shall be operated at all times when waste is placed in the waste management unit vented to the control device except when maintenance or repair of the waste management unit cannot be completed without a shutdown of the control device."

g. The affected sources shall comply with the following general operating standards according to 40 CFR 61.342(c)(1)(i) and (c)(1)(ii):

[40 CFR 61.342]

"(c) Each owner or operator of a facility at which the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr as determined in paragraph (a) of this section shall manage and treat the facility waste as follows:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

1. **Operating Limitations (Continued):**

   (1) For each waste stream that contains benzene, including (but not limited to) organic waste streams that contain less than 10 percent water and aqueous waste streams, even if the wastes are not discharged to an individual drain system, the owner or operator shall:

   (i) Remove or destroy the benzene contained in the waste using a treatment process or wastewater treatment system that complies with the standards specified in Sec. 61.348 of this subpart.

   (ii) Comply with the standards specified in Secs. 61.343 through 61.347 of this subpart for each waste management unit that receives or manages the waste stream prior to and during treatment of the waste stream in accordance with paragraph (c)(1)(i) of this section."

h. Pursuant to 40 CFR 63.138(k), for each residual removed from a 40 CFR 63 Subpart G Group 1 wastewater stream, as defined in 40 CFR 63.161, the owner or operator shall control for air emissions by complying with 40 CFR 63.133 through 63.137 and by complying with one of the provisions below:

   (1) Recycle the residual to a production process or sell the residual for the purpose of recycling. Once a residual is returned to a production process, the residual is no longer subject to this section.

   (2) Return the residual to the treatment process.

   (3) Treat the residual to destroy the total combined mass flow rate of Table 8 and/or Table 9 compounds by 99 percent or more, as determined by the procedures specified in 40 CFR 63.145(c) or (d).

   (4) Comply with the requirements for RCRA treatment options specified in 40 CFR 63.138(h).

Compliance Demonstration Method:
For compliance with the operating limitations:

- the permittee shall maintain a list of all containers subject to 40 CFR 61 Subpart FF;
- the permittee shall maintain a list of all drain system components being maintained in a controlled manner to provide compliance with 40 CFR 61 Subpart FF;
- the permittee shall maintain a list of all closed vent system components being maintained in a controlled manner to provide compliance with 40 CFR 61 Subpart FF; and
- refer to 4. Specific Monitoring Requirements, 5. Specific Record Keeping Requirements and 6. Specific Reporting Requirements, below.

2. **Emission Limitations:**
   None

3. **Testing Requirements:**
   Refer to 4. Specific Monitoring Requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

4. <u>Specific Monitoring Requirements</u>:

a. The permittee shall monitor the Viney Branch Truck Heel Recovery Slop Oil Tank according to the requirements of 40 CFR 61.343(c) – (d) as follows:

[40 CFR 61.343]

"(c) Each fixed roof, seal, access door, and all other openings shall be checked by visual inspection initially and quarterly thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly.

(d) Except as provided in Section 61.350, when a broken seal or gasket or other problem is identified, or when detectable emissions are measured, first effort at repair shall be made as soon as practicable, but not later than 15 calendar days after identification."

b. The permittee shall monitor the Viney Branch Truck Heel Recovery System Portable Containers and the affected container according to the requirements of 40 CFR 61.345(b) – (c) as follows:

[40 CFR 61.345]

"(b) Each cover and all openings shall be visually inspected initially and quarterly thereafter to ensure that they are closed and gasketed properly.

(c) Except as provided in §61.350 of this subpart, when a broken seal or gasket or other problem is identified, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification."

c. All affected individual drain systems shall comply with the following monitoring requirements of 40 CFR 61.346(a)(2) and (b)(4) as follows:

[40 CFR 61.346]

"(a)(2) Each cover seal, access hatch, and all other openings shall be checked by visual inspection initially and quarterly thereafter to ensure that no cracks or gaps occur and that access hatches and other openings are closed and gasketed properly."

"(b)(4) Equipment installed in accordance with paragraphs (b)(1), (b)(2), or (b)(3) of this section shall be inspected as follows:

(i) Each drain using water seal controls shall be checked by visual or physical inspection initially and thereafter quarterly for indications of low water levels or other conditions that would reduce the effectiveness of water seal controls.

(ii) Each drain using a tightly sealed cap or plug shall be visually inspected initially and thereafter quarterly to ensure caps or plugs are in place and properly installed.

(iii) Each junction box shall be visually inspected initially and thereafter quarterly to ensure that the cover is in place and to ensure that the cover has a tight seal around the edge.

(iv) The unburied portion of each sewer line shall be visually inspected initially and thereafter quarterly for indication of cracks, gaps, or other problems that could result in benzene emissions."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

4. <u>Specific Monitoring Requirements</u>:

d. The Benzene Recovery Unit treatment process operations shall be monitored according to the requirements of 40 CFR 61.348(e)(1), and 40 CFR 61.354(a)(1) and (a)(2) as follows:
[40 CFR 61.348]
"(e) Except as specified in paragraph (e)(3) of this section, if the treatment process or wastewater treatment system unit has any openings (e.g., access doors, hatches, etc.), all such openings shall be sealed (e.g., gasketed, latched, etc.) and kept closed at all times when waste is being treated, except during inspection and maintenance.
(1) Each seal, access door, and all other openings shall be checked by visual inspections initially and quarterly thereafter to ensure that no cracks or gaps occur and that openings are closed and gasketed properly."

[40 CFR 61.354]
"(a) Except for a treatment process or waste stream complying with Sec. 61.348(d), the owner or operator shall monitor each treatment process or wastewater treatment system unit to ensure the unit is properly operated and maintained by one of the following monitoring procedures:
(1) Measure the benzene concentration of the waste stream exiting the treatment process complying with Sec. 61.348(a)(1)(i) at least once per month by collecting and analyzing one or more samples using the procedures specified in Sec. 61.355(c)(3).
(2) Install, calibrate, operate, and maintain according to manufacturer's specifications equipment to continuously monitor and record a process parameter (or parameters) for the treatment process or wastewater treatment system unit that indicates proper system operation. The owner or operator shall inspect at least once each operating day the data recorded by the monitoring equipment (e.g., temperature monitor or flow indicator) to ensure that the unit is operating properly."

e. The affected control devices (BRU carbon adsorbers and carbon canisters) shall be monitored according to the requirements of 40 CFR 61.349(f), 61.349(g), and 61.354(d) as stated below:
[40 CFR 61.349]
"(f)Each closed-vent system and control device shall be visually inspected initially and quarterly thereafter. The visual inspection shall include inspection of ductwork and piping and connections to covers and control devices for evidence of visible defects such as holes in ductwork or piping and loose connections.
(g) Except as provided in §61.350 of this subpart, if visible defects are observed during an inspection, or if other problems are identified, or if detectable emissions are measured, a first effort to repair the closed-vent system and control device shall be made as soon as practicable but no later than 5 calendar days after detection. Repair shall be completed no later than 15 calendar days after the emissions are detected or the visible defect is observed."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

[40 CFR 61.354]

"(d) For a carbon adsorption system that does not regenerate the carbon bed directly on site in the control device (e.g., a carbon canister), either the concentration level of the organic compounds or the concentration level of benzene 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 either the organic concentration or the benzene concentration in the gas stream vented to the carbon adsorption system."

f. The permittee shall monitor the emission unit according to the requirements of 40 CFR 61.350 as follows:

[40 CFR 61.350]

"(a)Delay of repair of facilities or units that are subject to the provisions of this Subpart FF will be allowed if the repair is technically impossible without a complete or partial facility or unit shutdown.

(b) Repair of each equipment shall occur before the end of the next facility or unit shutdown."

g. The affected control devices (Viney Branch Truck Heel Recovery carbon canisters) shall be monitored according to the requirements of 40 CFR 61.354(f) as stated below:

[40 CFR 61.354]

(f) Owners or operators using a closed-vent system that contains any bypass line that could direct a vent stream from a control device used to comply with the provisions of Subpart FF shall do the following:

(1) Visually inspect the bypass line valve at least once every month, checking the position of the valve and the condition of the car-seal or closer mechanism required under Section 61.349(a)(1)(ii) to ensure that the valve is maintained in the closed position and vent stream is not diverted through the bypass line.

(2) Visually inspect the readings from the each flow monitoring device required by the Section 61.349(a)(1)(ii) at least once each operating day to check that vapors are being routed to the control device as required.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

5. **<u>Specific Recordkeeping Requirements</u>:**
   a. Pursuant to 40 CFR 61.356(d), and (g), the permittee shall meet the recordkeeping requirements for affected containers, tanks, and affected individual drain systems as follows:

      [40 CFR 61.356]
      "(d) An owner or operator using control equipment in accordance with Secs. 61.343 through 61.347 shall maintain engineering design documentation for all control equipment that is installed on the waste management unit. The documentation shall be retained for the life of the control equipment. If a control device is used, then the owner or operator shall maintain the control device records required by paragraph (f) of this section."
      "(g) An owner or operator shall maintain a record for each visual inspection required by Secs. 61.343 through 61.347 of this subpart that identifies a problem (such as a broken seal, gap or other problem) which could result in benzene emissions. The record shall include the date of the inspection, waste management unit and control equipment location where the problem is identified, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed."

   b. The permittee shall meet the recordkeeping requirements of 40 CFR 60.115b(a)(2) and (c) which is referenced by 40 CFR 61.356(k) for tanks 1-7-T-48, 1-7-T-49, 1-7-T-55, 2-606-T-860, 2-606-T-890 and 2-606-T-894 as follows:

      [40 CFR 60.115b]
      "The owner or operator of each storage vessel as specified in Sec. 60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of Sec. 60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.
      "(a) After installing control equipment in accordance with Sec. 60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements."
      "(2) Keep a record of each inspection performed as required by Sec. 60.113b (a)(1), (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)."
      "(c) After installing control equipment in accordance with Sec. 60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records.
      (1) A copy of the operating plan.
      (2) A record of the measured values of the parameters monitored in accordance with Sec. 60.113b(c)(2)."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

5. <u>Specific Recordkeeping Requirements (Continued)</u>:

c. The permittee shall meet the recordkeeping requirements of 40 CFR 61.356(e), and (i) for the affected treatment process (BRU) as stated below:

[40 CFR 61.356]

"(e) An owner or operator using a treatment process or wastewater treatment system unit in accordance with Sec. 61.348 of this subpart shall maintain the following records. The documentation shall be retained for the life of the unit.

(1) A statement signed and dated by the owner or operator certifying that the unit is designed to operate at the documented performance level when the waste stream entering the unit is at the highest waste stream flow rate and benzene content expected to occur.

(2) If engineering calculations are used to determine treatment process or wastewater treatment system unit performance, then the owner or operator shall maintain the complete design analysis for the unit. The design analysis shall include for example the following information: Design specifications, drawings, schematics, piping and instrumentation diagrams, and other documentation necessary to demonstrate the unit performance.

(3) If performance tests are used to determine treatment process or wastewater treatment system unit performance, then the owner or operator shall maintain all test information necessary to demonstrate the unit performance.

(i) A description of the unit including the following information: type of treatment process; manufacturer name and model number; and for each waste stream entering and exiting the unit, the waste stream type (e.g., process wastewater, sludge, slurry, etc.), and the design flow rate and benzene content.

(ii) Documentation describing the test protocol and the means by which sampling variability and analytical variability were accounted for in the determination of the unit performance. The description of the test protocol shall include the following information: sampling locations, sampling method, sampling frequency, and analytical procedures used for sample analysis.

(iii) Records of unit operating conditions during each test run including all key process parameters.

(iv) All test results.

(4) If a control device is used, then the owner or operator shall maintain the control device records required by paragraph (f) of this section."

"(i) For each treatment process and wastewater treatment system unit operated to comply with Sec. 61.348, the owner or operator shall maintain documentation that includes the following information regarding the unit operation:

(1) Dates of startup and shutdown of the unit.

(2) If measurements of waste stream benzene concentration are performed in accordance with Sec. 61.354(a)(1) of this subpart, the owner or operator shall maintain records that include date each test is performed and all test results.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

5. <u>Specific Recordkeeping Requirements (Continued)</u>:

(3) If a process parameter is continuously monitored in accordance with Sec. 61.354(a)(2) of this subpart, the owner or operator shall maintain records that include a description of the operating parameter (or parameters) to be monitored to ensure that the unit will be operated in conformance with these standards and the unit's design specifications, and an explanation of the criteria used for selection of that parameter (or parameters). This documentation shall be kept for the life of the unit.

(4) If measurements of waste stream benzene concentration are performed in accordance with Sec. 61.354(b), the owner or operator shall maintain records that include the date each test is performed and all test results.

(5) Periods when the unit is not operated as designed."

d. The permittee shall meet the recordkeeping requirements of 40 CFR 61.356(f), (h), and (j) for the affected control devices (BRU carbon adsorbers and carbon canisters), tanks and drains as follows:

[40 CFR 61.356]

"(f) An owner or operator using a closed-vent system and control device in accordance with Sec. 61.349 of this subpart shall maintain the following records. The documentation shall be retained for the life of the control device.

(1) A statement signed and dated by the owner or operator certifying that the closed-vent system and control device is designed to operate at the documented performance level when the waste management unit vented to the control device is or would be operating at the highest load or capacity expected to occur.

(2) If engineering calculations are used to determine control device performance in accordance with Sec. 61.349(c), then a design analysis for the control device that includes for example:

(i) Specifications, drawings, schematics, and piping and instrumentation diagrams prepared by the owner or operator, or the control device manufacturer or vendor that describe the control device design based on acceptable engineering texts. The design analysis shall address the following vent stream characteristics and control device operating parameters:"...

"(G) For a carbon adsorption system that does not regenerate the carbon bed directly on-site in the control device, such as a carbon canister, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene 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."...

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

5. <u>Specific Recordkeeping Requirements (Continued)</u>:

"*(3) If performance tests are used to determine control device performance in accordance with Sec. 61.349(c) of this subpart:*

(i) A description of how it is determined that the test is conducted when the waste management unit or treatment process is operating at the highest load or capacity level. This description shall include the estimated or design flow rate and organic content of each vent stream and definition of the acceptable operating ranges of key process and control parameters during the test program.

(ii) A description of the control device including the type of control device, control device manufacturer's name and model number, control device dimensions, capacity, and construction materials.

(iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(iv) All test results.

"(h) An owner or operator shall maintain a record for each test of no detectable emissions required by Secs. 61.343 through 61.347 and Sec. 61.349 of this subpart. The record shall include the following information: date the test is performed, background level measured during test, and maximum concentration indicated by the instrument reading measured for each potential leak interface. If detectable emissions are measured at a leak interface, then the record shall also include the waste management unit, control equipment, and leak interface location where detectable emissions were measured, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed."

"(j) For each control device, the owner or operator shall maintain documentation that includes the following information regarding the control device operation:

(1) Dates of startup and shutdown of the closed-vent system and control device.

(2) A description of the operating parameter (or parameters) to be monitored to ensure that the control device will be operated in conformance with these standards and the control device's design specifications and an explanation of the criteria used for

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

selection of that parameter (or parameters). This documentation shall be kept for the life of the control device.

(3) Periods when the closed-vent system and control device are not operated as designed including all periods and the duration when:

(i) Any valve car-seal or closure mechanism required under Sec. 61.349(a)(1)(ii) is broken or the by-pass line valve position has changed.

(ii) The flow monitoring devices required under Sec. 61.349(a)(1)(ii) indicate that vapors are not routed to the control device as required.

(9) If a carbon adsorber is used, then the owner or operator shall maintain records from the monitoring device of the concentration of organics or the concentration of benzene in the control device outlet gas stream. If the concentration of organics or the concentration of benzene in the control device outlet gas stream is monitored, then the owner or operator shall record all 3-hour periods of operation during which the concentration of organics or the concentration of benzene in the exhaust stream is more than 20 percent greater than the design value. If the carbon bed regeneration interval is monitored, then the owner or operator shall record each occurrence when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time.

(10) If a carbon adsorber that is not regenerated directly on site 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 then the existing carbon in the control device is replaced with fresh carbon."

6. <u>Specific Reporting Requirements</u>:

a. The permittee shall meet the reporting requirements of 40 CFR 60.115b(a)(1, 3, and 4) which is referenced by 40 CFR 61.357(f) for tanks 1-7-T-48, 1-7-T-49, 1-7-T-55, 2-606-T-860, 2-606-T-890 and 2-606-T-894 as follows:
[40 CFR 60.115b]
"The owner or operator of each storage vessel as specified in Sec. 60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of Sec. 60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

"(a) After installing control equipment in accordance with Sec. 60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.

(1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of Sec. 60.112b(a)(1) and Sec. 60.113b(a)(1). This report shall be an attachment to the notification required by Sec. 60.7(a)(3)"

"(3)If any of the conditions described in Sec. 60.113b(a)(2) are detected during the annual visual inspection required by Sec. 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 Sec. 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 Sec. 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of Sec. 61.112b(a)(1) or Sec. 60.113b(a)(3) and list each repair made."

b. The permittee shall meet the reporting requirements of 40 CFR 61.357(d)(7)(iv)(D) and 61.357(d)(7)(iv)(I) for the affected control devices (BRU carbon adsorbers and carbon canisters), tanks, and drain systems, as follows:

[40 CFR 61.357]

"(d) If the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr, then the owner or operator shall submit to the Administrator the following reports:"...

"(7) Beginning 3 months after the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of this section, the owner or operator shall submit a report quarterly to the Administrator that includes:"...

"(iv) For a control device monitored in accordance with Sec. 61.354(c) of this subpart, each period of operation monitored during which any of the following conditions occur, as applicable to the control device:"...

"(D) Each 3-hour period of operation during which the average concentration of organics or the average concentration of benzene in the exhaust gases from a carbon adsorber, condenser, or other vapor recovery system is more than 20 percent greater than the design concentration level of organics or benzene in the exhaust gas."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

"(I) Each occurrence when the carbon in a carbon adsorber system that is not regenerated directly on site in the control device is not replaced at the predetermined interval specified in Sec. 61.354(c) of this subpart."

c. The permittee shall meet the reporting requirements of 40 CFR 61.357(d)(7)(i) for the affected treatment system (BRU) as follows:

[40 CFR 61.357]

"(d) If the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr, then the owner or operator shall submit to the Administrator the following reports:"...

"(7) Beginning 3 months after the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of this section, the owner or operator shall submit a report quarterly to the Administrator that includes:"...

"(i) If a treatment process or wastewater treatment system unit is monitored in accordance with Sec. 61.354(a)(1) of this subpart, then each period of operation during which the concentration of benzene in the monitored waste stream exiting the unit is equal to or greater than 10 ppmw."

d. The permittee shall meet the reporting requirements of 40 CFR 61.357(a), (d)(1), (d)(2), (d)(6), and (d)(8) for the affected sources as follows:

[40 CFR 61.357]

"(a) Each owner or operator of a chemical plant, petroleum refinery, coke by-product recovery plant, and any facility managing wastes from these industries shall submit to the Administrator within 90 days after January 7, 1993, or by the initial startup for a new source with an initial startup after the effective date, a report that summarizes the regulatory status of each waste stream subject to Sec. 61.342 and is determined by the procedures specified in Sec. 61.355(c) to contain benzene. Each owner or operator subject to this subpart who has no benzene onsite in wastes, products, by-products, or intermediates shall submit an initial report that is a statement to this effect. For all other owners or operators subject to this subpart, the report shall include the following information:

(1) Total annual benzene quantity from facility waste determined in accordance with Sec. 61.355(a) of this subpart.

(2) A The Process Units Table identifying each waste stream and whether or not the waste stream will be controlled for benzene emissions in accordance with the requirements of this subpart.

(3) For each waste stream identified as not being controlled for benzene emissions in accordance with the requirements of this subpart the following information shall be added to the table:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

(i) Whether or not the water content of the waste stream is greater than 10 percent;
(ii) Whether or not the waste stream is a process wastewater stream, product tank drawdown, or landfill leachate;
(iii) Annual waste quantity for the waste stream;
(iv) Range of benzene concentrations for the waste stream;
(v) Annual average flow-weighted benzene concentration for the waste stream; and
(vi) Annual benzene quantity for the waste stream.

(4) The information required in paragraphs (a) (1), (2), and (3) of this section should represent the waste stream characteristics based on current configuration and operating conditions. An owner or operator only needs to list in the report those waste streams that contact materials containing benzene. The report does not need to include a description of the controls to be installed to comply with the standard or other information required in Sec. 61.10(a)."

"(d) If the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr, then the owner or operator shall submit to the Administrator the following reports:

(1) Within 90 days after January 7, 1993, unless a waiver of compliance under Sec. 61.11 of this part is granted, or by the date of initial startup for a new source with an initial startup after the effective date, a certification that the equipment necessary to comply with these standards has been installed and that the required initial inspections or tests have been carried out in accordance with this subpart. If a waiver of compliance is granted under Sec. 61.11, the certification of equipment necessary to comply with these standards shall be submitted by the date the waiver of compliance expires.

(2) Beginning on the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of this section, the owner or operator shall submit annually to the Administrator a report that updates the information listed in paragraphs (a)(1) through (a)(3) of this section. If the information in the annual report required by paragraphs (a)(1) through (a)(3) of this section is not changed in the following year, the owner or operator may submit a statement to that effect."

"(6) Beginning 3 months after the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of this section, the owner or operator shall submit quarterly to the Administrator a certification that all of the required inspections have been carried out in accordance with the requirements of this subpart."

"(8) Beginning one year after the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of this section, the owner or operator shall submit annually to the Administrator a report that summarizes all inspections required by Secs. 61.342 through 61.354 during which detectable emissions are measured or a problem (such as a broken seal, gap or other problem) that could result in benzene emissions is identified, including information about the repairs or corrective action taken."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

7. <u>Specific Control Equipment Operating Conditions</u>:

A. The affected control devices (Viney Branch Truck Heel Recovery Carbon Canister) shall operate according to 40CFR 61.349(a)(1) and (b), as follows:

[40 CFR 61.349]
(a) For each closed-vent system and control device used to comply with standards in accordance with Section 61.343 through 61.348, the owner or operator shall properly design, install, and maintain the closed-vent system and control device in accordance with the following requirements:
(1) The closed-vent system shall:
(i) Be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in Section 61.355.
(ii) Vent system that contain any bypass line that could divert the vent stream away from a control device used to comply with the provision of Subpart FF shall install, maintain, and operate according to the manufacturer's specification a flow indicator that provides a record of vent steam flow away from the control device at least once every 15 minutes, except as provided in 61.349(a)(1)(ii)(B).
(A) The flow indicator shall be installed at the entrance of any bypass line that could divert the vent stream away from the control device to the atmosphere.
(B) Where the bypass line valve is secured in the closed position with a carseal or a lock-and –key type configuration, a flow indicator is not required.
(iii) All gauging and sampling devices shall be gas-tight except when gauging or sampling is taken place.
(iv) For each closed-vent system complying with the paragraph (a) of this section, one or more devices which vent directly to the atmosphere may be used on the closed-vent system provided each device remains in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the closed-vent system resulting from malfunction of the unit in accordance with good engineering and safety practices for handling flammable, explosive, or other hazardous materials.

(b) Each closed-vent system and control device used to comply with Subpart FF shall be operated at all times when waste is placed in the waste management unit vented to the control device except when maintenance or repair of the waste management unit cannot be completed without a shutdown of the control device.

B. The affected control devices (Viney Branch Truck Heel Recovery Carbon Canister) shall operate according to 40CFR 61.349(a)(2)(ii) and (c), as follows:

[40 CFR 61.349]
(a)(2) The control device shall be designed and operated in accordance with the following conditions:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED):

Emission Point BWT001, Benzene Wastewater Treatment (Continued):

7. <u>Specific Control Equipment Operating Conditions</u>:

(ii) A vapor recovery system (e.g., a carbon adsorption system or a condenser) shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater.

(c) An owner and operator shall demonstrate that each control device, except for a flare, achieves the appropriate conditions specified in 61.349 (a)(2) by using one of following methods:
(1) Engineering calculations in accordance with requirements specified in Section 61.356(f); or
(2) Performance tests conducted using test methods and procedures that meet the requirements specified in Section 61.355.

8. <u>Alternate Operating Scenarios</u>:

None

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION:

EMISSION UNITS/DESCRIPTION:

Emission Units / Description Table						
Emission Unit	Description	61 FF Container	61 FF O/W Separator	61 FF Tank	63 GGGGG Process Vent	63 GGGGG Mat. Management Unit
AR-1	Portable totes and skid tanks (multiple, site-wide)	X				Subpart FF compliance option
AR-2	Site-wide vacuum and/or pump trucks	X				Subpart FF compliance option
AR-3	Oil/water separator		X (carbon canisters)			Subpart FF compliance option
AR-4	Oil Holding Tank (Surge tank)- capacity < 19,800 gallons.			X (carbon canisters)		Subpart FF compliance option
AR-5	IM vacuum and/or pump trucks	X				Subpart FF compliance option
AR-6	Recovery Wells (pneumatic pumps)				X (carbon canisters)	
AR-7	Product storage tanks- capacity < 19,800 gallons.					X (carbon canisters)
--	Conveyance Piping- welded.					
--	Recovery Wells (electric pumps)					
--	Recovery Wells (sealed)					
--	Conveyance Piping (welded)					

Subpart FF compliance option- Pursuant to 40 VFR 63 Subpart GGGGG, Section 63.7886(b)(3), if an affected remediation material management unit is also subject to another subpart under 40 CFR Part 61 or 40 CFR Part 63, and emissions of HAPs listed in Table 1 of 40 CFR 63 Subpart GGGGG are controlled in compliance with the standards specified in the applicable subpart, then the affected remediation material management units is in compliance with standards of 40 CFR 63 Subpart GGGGG.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

APPLICABLE REGULATIONS:	
401 KAR 59:050	New Storage Vessels for Petroleum Liquids
401 KAR 59:095	New Oil-Effluent Water Separators
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart QQQ	Standards of Performance for VOC Emissions from Petroleum Refinery Wastewater Systems
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart GGGGG	National Emission Standards for Organic Hazardous Air Pollutants from Site Remediation.
401 KAR 63:002 incorporating by reference 40 CFR 63 Subpart CC.	National Emission Standards for Organic Hazardous Air Pollutants from Petroleum Refineries
401 KAR 67:002 incorporating by reference 40 CFR 61 Subpart FF	National Emission Standards for Benzene Waste Operations

NON-APPLICABLE REGULATIONS:	
401 KAR 60:005 incorporating by reference 40 CFR 60 Subpart Kb	Standards for Volatile Organic Liquid Storage Vessels. Per 60.110b(a), Subpart Kb does not apply to storage vessels with capacity less than 75 cubic meters (19,800 gallons).
Equipment Leak Standards of 40 CFR 63 Subpart GGGGG	Per 63.7882(a)(3)(i), the equipment leak standards of Subpart GGGGG do not apply because the equipment components do not contain or contact remediation material having a concentration of total HAP listed in Table 1 of Subpart GGGGG equal to or greater than 10 percent by weight.

REGULATORY CLARIFICATIONS:	
Overlap of 40 CFR 63, Subpart CC with 40 CFR 61, Subpart FF, and 40 CFR 60, Subpart QQQ	The standards and requirements of 40 CFR 63, Subpart CC for wastewater treatement are identical to and reference the standards in 40 CFR 61, Subpart FF. Therefore, compliance with the standards o 40 CFR 61, Subpart FF is deemed compliance with 40 CFR 63, Subpart CC. 40 CFR 63.640(o)(1) specifies that after the copliance dates specified in 63.640(h), a Group 1 wastewater stream in a piece of equipment that is also subject to the provisions of 40 CFR 60, Subpart QQQ, is required to comply only with the requirements of 40 CFR 63, Subpart CC.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

REGULATORY CLARIFICATIONS (Continued):	
Overlap of 401 KAR 59:050 and 40 KAR 59:095 with 40 CFR 61, Subpart FF	The standards and requirements of 40 CFR 61, Subpart FF are more stringent than the standards and requerements in 40 KAR 59:050 and 401 KAR 59:095. Therefore, compliance with the requirements in 40 CFR 61, Subpart FF is deemed compliance with 401 KAR 59:050 and 401 KAR 59:095.

1. **<u>Operating Limitations</u>:**

   a. 40 CFR 61 Subpart FF containers indicated in the Emission Units/Description Table:

   [40 CFR 61.345]

   "(a) The owner or operator shall meet the following standards for each container in which waste is placed in accordance with § 61.342(c)(1)(ii) of this subpart:

   (1) The owner or operator shall install, operate, and maintain a cover on each container used to handle, transfer, or store waste in accordance with the following requirements:

   (i) The cover and all openings (e.g., bungs, hatches, and sampling ports) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart.

   (ii) Except as provided in paragraph (a)(4) of this section, each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the container except when it is necessary to use the opening for waste loading, removal, inspection, or sampling.

   (2) When a waste is transferred into a container by pumping, the owner or operator shall perform the transfer using a submerged fill pipe. The submerged fill pipe outlet shall extend to within two fill pipe diameters of the bottom of the container while the container is being loaded. During loading of the waste, the cover shall remain in place and all openings shall be maintained in a closed, sealed position except for those openings required for the submerged fill pipe, those openings required for venting of the container to prevent physical damage or permanent deformation of the container or cover, and any openings complying with paragraph (a)(4) of this section."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

1. **Operating Limitations (Continued):**
   b. 40 CFR Subpart FF oil-water separator(s) indicated in the Emission Units/Description Table:
   [*40* CFR 61.347]
   "(a) Except as provided in § 61.352 of this subpart, the owner or operator shall meet the following standards for each oil-water separator in which waste is placed in accordance with § 61.342(c)(1)(ii) of this subpart:
   (1) The owner or operator shall install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the oil-water separator to a control device.
   (i) The fixed-roof shall meet the following requirements:
   (A) The cover and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart.
   (B) Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the oil-water separator except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair.
   (ii) The closed-vent system and control device shall be designed and operated in accordance with the requirements of 61.349 of this subpart."

   c. 40 CFR 61 Subpart FF tank(s) indicated in the Emission Units/Description Table:
   [40 CFR 61.343]
   "(a) Except as provided in paragraph (b) of this section and in § 61.351, the owner or operator shall meet the following standards for each tank in which the waste stream is placed in accordance with § 61.342(c)(1)(ii). The standards in this section apply to the treatment of the waste stream in a tank, including dewatering.
   (1) The owner or operator shall install, operate, and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device.
   (i) The fixed-roof shall meet the following requirements:
   (A) The cover and all openings (e.g., access hatches, sampling ports, and gauge wells) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart.
   (B) Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair.
   (ii) The closed-vent system and control device shall be designed and operated in accordance with the requirements of 61.349 of this subpart."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

1. <u>Operating Limitations (Continued)</u>:

d. Short-Term Site Remediation Activities:
[40 CFR 63.7884]

"(b) A site remediation that is completed within 30 consecutive calendar days according to the conditions in paragraphs (b)(1) through (3) of this section is not subject to the standards under paragraph (a) of this section. This exemption cannot be used for a site remediation involving the staged or intermittent cleanup of remediation material whereby the remediation activities at the site are started, stopped, and then re-started in a series of intervals, with durations less than 30-days per interval, when the time period from the beginning of the first interval to the end of the last interval exceeds 30 days.

(1) The 30 consecutive calendar day period for a site remediation that qualifies for this exemption is determined according to actions taken by you as defined in paragraphs (b)(1)(i) through (iii) of this section.

(i) The first day of the 30-day period is defined as the day on which you initiate any action that removes, destroys, degrades, transforms, immobilizes, or otherwise manages the remediation materials. The following activities, when completed before beginning this initial action, are not counted as part of the 30-day period: Activities to characterize the type and extent of the contamination by collecting and analyzing samples; activities to obtain permits from Federal, State, or local authorities to conduct the site remediation; activities to schedule workers and necessary equipment; and activities to arrange for contractor or third party assistance in performing the site remediation.

(ii) The last day of the 30-day period is defined as the day on which treatment or disposal of all of the remediation materials generated by the cleanup is completed such that the organic constituents in these materials no longer have a reasonable potential for volatilizing and being released to the atmosphere.

(iii) If treatment or disposal of the remediation materials is conducted at an off-site facility where the final treatment or disposal of the material cannot, or may not, be completed within the 30-day exemption period, then the shipment of all of the remediation material generated from your cleanup that is transferred to another party, or shipped to another facility, within the 30-day period, must be performed according to the applicable requirements specified in §63.7936.

(2) For the purpose of complying with paragraph (b)(1) of this section, if you ship or otherwise transfer the remediation material off-site you must include in the applicable shipping documentation, in addition to any notifications and certifications required under §63.7936, a statement that the shipped material was generated by a site remediation activity subject to the conditions of this exemption. The statement must include the date on which you initiated the site remediation activity generating the shipped remediation materials, as specified in paragraph (b)(1)(i) of this section, and the date 30 calendar days following your initiation date.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

1. <u>Operating Limitations (Continued)</u>:

(3) You must prepare and maintain at your facility written documentation describing the exempted site remediation, and listing the initiation and completion dates for the site remediation."

e. 40 CFR 63 Subpart GGGGG storage tank(s) indicated in the Emission Units/Description Table:

[40 CFR 63.7895]

"(b) For each affected tank, you must install and operate air pollution controls that meet the requirements in paragraphs (b)(1) through (4) of this section that apply to your tank."

"(1) Unless your tank is used for a waste stabilization process, as defined in §63.7957, you must determine the maximum HAP vapor pressure (expressed in kilopascals (kPa)) of the remediation material placed in your tank using the procedures specified in §63.7944."

"(3) If maximum HAP vapor pressure of the remediation material you place in your tank is 76.6 kPa or greater, then the tank must use one of the Tank Level 2 controls specified in paragraphs (d)(3) through (5) of this section. Use of floating roofs under paragraph (d)(1) or (2) of this section is not allowed for tanks managing these remediation materials."

"(d) If you use Tank Level 2 controls, you must meet the requirements of one of the options in paragraphs (d)(1) through (5) of this section."

"(3) Install and operate a fixed roof vented through a closed vent system to a control device according to the requirements in §63.685(g). You must meet the emissions limitations and work practice standards in §63.7925 that apply to your closed vent system and control device."

[40 CFR 63.685]

"(g) The owner or operator who controls tank air emissions by venting to a control device shall meet the requirements specified in paragraphs (g)(1) through (g)(3) of this section.

(1) The tank shall be covered by a fixed roof and vented directly through a closed-vent system to a control device in accordance with the following requirements:

(i) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

1. <u>Operating Limitations (Continued)</u>:

(ii) Each opening in the fixed roof not vented to the control device shall be equipped with a closure device. If the pressure in the vapor headspace underneath the fixed roof is less than atmospheric pressure when the control device is operating, the closure devices shall be designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the cover opening and the closure device. If the pressure in the vapor headspace underneath the fixed roof is equal to or greater than atmospheric pressure when the control device is operating, the closure device shall be designed to operate with no detectable organic emissions.

(iii) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the off-site material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability, the effects of any contact with the liquid and its vapor managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(iv) The closed-vent system and control device shall be designed and operated in accordance with the requirements of §63.693 of this subpart.

(2) Whenever an off-site material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position and the vapor headspace underneath the fixed roof vented to the control device except as follows:

(i) Venting to the control device is not required, and opening of closure devices or removal of the fixed roof is allowed at the following times:

(A) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(B) To remove accumulated sludge or other residues from the bottom of the tank.

(ii) Opening of a safety device, as defined in §63.681 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition.

(3) The owner or operator shall inspect and monitor the air emission control equipment in accordance with the procedures specified in §63.695 of this subpart."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

1. <u>Operating Limitations (Continued)</u>:

[40 CFR 63.7896]

"(f) You must demonstrate initial compliance of each tank determined under paragraph (b) of this section to require Tank Level 2 controls and using a fixed roof vented to a control device according to §63.7895(d)(3) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (f)(1) through (4) of this section.

(1) Each tank is equipped with a fixed roof and closure devices according to the requirements in §63.902(b) and (c) and you have records documenting the design.

(2) You have performed an initial visual inspection of fixed roof and closure devices for defects according to the requirements in §63.695(b)(3) and you have records documenting the inspection results.

(3) You will operate the fixed roof and closure devices according to the requirements in §63.685(g).

(4) You have met each applicable requirement for demonstrating initial compliance with the emission limitations and work practice standards for a closed vent system and control device in §63.7926."

[40 CFR 63.902]

"(b) The tank shall be equipped with a fixed roof designed to meet the following specifications:

(1) The fixed roof and its closure devices shall be designed to form a continuous barrier over the entire surface area of the liquid in the tank. The fixed roof may be a separate cover installed on the tank (e.g., a removable cover mounted on an open-top tank) or may be an integral part of the tank structural design (e.g., a horizontal cylindrical tank equipped with a hatch).

(2) The fixed roof shall be installed in a manner such that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.

(3) Each opening in the fixed roof, and any manifold system associated with the fixed roof, shall be either:

(i) equipped with a closure device designed to operate such that when the closure device is secured in the closed position there are no visible cracks, holes, gaps, or other open spaces in the closure device or between the perimeter of the opening and the closure device; or

(ii) connected by a closed-vent system that is vented to a control device. The control device shall remove or destroy organics in the vent stream, and shall be operating whenever regulated material is managed in the tank.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

1. <u>Operating Limitations (Continued)</u>:

(4) The fixed roof and its closure devices shall be made of suitable materials that will minimize exposure of the regulated-material to the atmosphere, to the extent practical, and will maintain the integrity of the equipment throughout its intended service life. Factors to be considered when selecting the materials for and designing the fixed roof and closure devices shall include: organic vapor permeability, the effects of any contact with the liquid or its vapors managed in the tank; the effects of outdoor exposure to wind, moisture, and sunlight; and the operating practices used for the tank on which the fixed roof is installed.

(c) Whenever a regulated-material is in the tank, the fixed roof shall be installed with each closure device secured in the closed position except as follows:

(1) Opening of closure devices or removal of the fixed roof is allowed at the following times:

(i) To provide access to the tank for performing routine inspection, maintenance, or other activities needed for normal operations. Examples of such activities include those times when a worker needs to open a port to sample the liquid in the tank, or when a worker needs to open a hatch to maintain or repair equipment. Following completion of the activity, the owner or operator shall promptly secure the closure device in the closed position or reinstall the cover, as applicable, to the tank.

(ii) To remove accumulated sludge or other residues from the bottom of tank.

(2) Opening of a spring-loaded pressure-vacuum relief valve, conservation vent, or similar type of pressure relief device which vents to the atmosphere is allowed during normal operations for the purpose of maintaining the tank internal pressure in accordance with the tank design specifications. The device shall be designed to operate with no detectable organic emissions when the device is secured in the closed position. The settings at which the device opens shall be established such that the device remains in the closed position whenever the tank internal pressure is within the internal pressure operating range determined by the owner or operator based on the tank manufacturer recommendations, applicable regulations, fire protection and prevention codes, standard engineering codes and practices, or other requirements for the safe handling of flammable, combustible, explosive, reactive, or hazardous materials. Examples of normal operating conditions that may require these devices to open are during those times when the container internal pressure exceeds the internal pressure operating range for the tank as a result of loading operations or diurnal ambient temperature fluctuations.

(3) Opening of a safety device, as defined in §63.901 of this subpart, is allowed at any time conditions require it to do so to avoid an unsafe condition."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

1. <u>Operating Limitations (Continued)</u>:

[40 CFR 63.7898]

"(b) You must demonstrate continuous compliance with the requirement to determine the applicable tank control level specified in §63.7895(b) for each affected tank by meeting the requirements in paragraphs (b)(1) through (3) of this section."

(3) Keeping records to document compliance with the requirements of this subpart according to the requirements in §63.7952."

"(f) You must demonstrate continuous compliance for each tank determined to require Tank Level 2 controls and using a fixed roof vented to a control device according to §63.7895(d)(3) by meeting the requirements in paragraphs (f)(1) through (6) of this section.

(1) Operating and maintaining the fixed roof and closure devices according to the requirements in §63.685(g).

(2) Visually inspecting the fixed roof and closure devices for defects at least annually according to the requirements in §63.695(b)(3)(i).

(3) Repairing defects according to the requirements in §63.695(b)(4).

(4) Recording the information specified in §63.696(e).

(5) Meeting each applicable requirement for demonstrating continuous compliance with the emission limitations and work practice standards for a closed vent system and control device in §63.7928.

(6) Keeping records to document compliance with the requirements of this subpart according to the requirements in §63.7952."

f. 40 CFR 63 Subpart GGGGG process vent(s) and storage tank(s) indicated in the Emission Units/Description Table:

[40 CFR 63.7935]

"(a) You must be in compliance with the emissions limitations (including operating limits) and the work practice standards in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in §63.6(e)(1)(i).

(c) You must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in §63.6(e)(3).

(e) You must report each instance in which you did not meet each emissions limitation and each operating limit that applies to you. This includes periods of startup, shutdown, and malfunction. You must also report each instance in which you did not meet the requirements for work practice standards that apply to you. These instances are deviations from the emissions limitations and work practice standards in this subpart. These deviations must be reported according to the requirements in §63.7951.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

1. **Operating Limitations (Continued):**

(f) Consistent with §§63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the Administrator's satisfaction that you were operating in accordance with §63.6(e)(1). We will determine whether deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in §63.6(e).

(g) For each monitoring system required in this section, you must develop and make available for inspection by the permitting authority, upon request, a site-specific monitoring plan that addresses the following:

(1) Installation of the continuous monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).

(2) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction system.

(3) Performance evaluation procedures and acceptance criteria (e.g., calibrations).

(h) In your site-specific monitoring plan, you must also address the following:

(1) Ongoing operation and maintenance procedures according to the general requirements of §63.8(c)(1), (3), (4)(ii), (7), and (8).

(2) Ongoing data quality assurance procedures according to the general requirements of §63.8(d).

(3) Ongoing recordkeeping and reporting procedures according to the general requirements of §63.10(c), (e)(1), and (e)(2)(i).

(i) You must operate and maintain the continuous monitoring system according to the site-specific monitoring plan.

(j) You must conduct a performance evaluation of each continuous monitoring according to your site-specific monitoring plan."

g. Transfer of 40 CFR 63 Subpart GGGGG Remediation Materials:
[40 CFR 63.7936]

"(a) If you transfer to another facility a remediation material generated by your remediation activities and having an average total VOHAP concentration equal to or greater than 10 ppmw (as determined using the procedures specified in §63.7943), then you must transfer the remediation material to a facility that meets the requirements in paragraph (b) of this section. You must record the name, street address, and telephone number of the facility where you send this remediation material.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

1. <u>Operating Limitations (Continued)</u>:

(b) You may elect to transfer the remediation material to one of the following facilities:

(1) A facility where your remediation material will be directly disposed in a landfill or other land disposal unit according to all applicable Federal and State requirements.

(2) A facility subject to 40 CFR part 63, subpart DD where the exemption under §63.680(b)(2)(iii) is waived and air emissions from the management of your remediation material at the facility are controlled according to all applicable requirements in the subpart for an off-site material. Prior to sending your remediation material, you must obtain a written statement from the owner or operator of the facility to which you send your remediation material acknowledging that the exemption under §63.680(b)(2)(iii) will be waived for all remediation material received at the facility from you and your material will be managed as an off-site material at the facility according to all applicable requirements. This statement must be signed by the responsible official of the receiving facility, provide the name and address of the receiving facility, and a copy sent to the appropriate EPA Regional Office at the addresses listed in 40 CFR 63.13.

(3) A facility where your remediation material will be managed according to all applicable requirements under this Subpart.

(i) You must prepare and include a notice with each shipment or transport of remediation material from your site. This notice must state that the remediation material contains organic HAP that are to be treated according to the provisions of this subpart. When the transport is continuous or ongoing (for example, discharge to a publicly owned treatment works), the notice must be submitted to the receiving facility owner or operator initially and whenever there is a change in the required treatment.

(ii) You may not transfer the remediation material unless the owner or operator of the facility receiving your remediation material has submitted to the EPA a written certification that he or she will manage remediation material received from you according to the requirements of §§63.7885 through 63.7957. The receiving facility owner or operator may revoke the written certification by sending a written statement to the EPA and to you providing at least 90 days notice that they rescind acceptance of responsibility for compliance with the regulatory provisions listed in this section. Upon expiration of the notice period, you may not transfer your remediation material to the facility.

(iii) By providing the written certification to the EPA, the receiving facility owner or operator accepts responsibility for compliance with the regulatory provisions listed in paragraph (b)(3) of this section with respect to any shipment of remediation material covered by the written certification. Failure to abide by any of those provisions with respect to such shipments may result in enforcement action by the EPA against the certifying entity according to the enforcement provisions applicable to violations of these provisions by owners or operators of sources.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

1. **Operating Limitations (Continued):**

(iv) Written certifications and revocation statements to the EPA from the receiving facility owner or operator must be signed by the responsible official of the receiving facility, provide the name and address of the receiving facility, and a copy sent to the appropriate EPA Regional Office at the addresses listed in 40 CFR 63.13. Such written certifications are not transferable.

(c) Acceptance by a facility owner or operator of remediation material from a site remediation subject to this Subpart does not, by itself, require the facility owner or operator to obtain a title V permit under 40 CFR 70.3 or 40 CFR 71.3."

2. **Emission Limitations:**

40 CFR 63 Subpart GGGGG process vent(s) indicated in the Emission Units/Description Table:

[40 CFR 63.7890]

"(b) For your affected process vents, you must meet one of the facility-wide emission limit options specified in paragraphs (b)(1) through (4) of this section. If you have multiple affected process vent streams, you may comply with this paragraph using a combination of controlled and uncontrolled process vent streams that achieve the facility-wide emission limit that applies to you."

"(3) Reduce from all affected process vents the total emissions of the HAP listed in Table 1 of this subpart by 95 percent by weight or more; or

(4) Reduce from all affected process vents the emissions of TOC (minus methane and ethane) by 95 percent by weight or more."

"(c) For each closed vent system and control device you use to comply with paragraph (b) of this section, you must meet the operating limit requirements and work practice standards in §63.7925(c) through (j) that apply to your closed vent system and control device."

3. **Testing Requirements:**

None

4. **Specific Monitoring Requirements:**

a. 40 CFR 61 Subpart FF containers indicated in the Emission Units/Description Table:

[40 CFR 61.345]

"(b)Each cover and all openings shall be visually inspected initially and quarterly thereafter to ensure that they are closed and gasketed properly.

(c) Except as provided in § 61.350 of this subpart, when a broken seal or gasket or other problem is identified, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification."

[40 CFR 61.350]

"(a) Delay of repair of facilities or units that are subject to the provisions of this subpart will be allowed if the repair is technically impossible without a complete or partial facility or unit shutdown.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

(b) Repair of such equipment shall occur before the end of the next facility or unit shutdown."

b. 40 CFR 61 Subpart FF tank(s) indicated in the Emission Units/Description Table:

[40 CFR 61.343]

"(c) Each fixed-roof, seal, access door, and all other openings shall be checked by visual inspection initially and quarterly thereafter to ensure that no cracks or gaps occur and that access doors and other openings are closed and gasketed properly.

(d) Except as provided in § 61.350 of this subpart, when a broken seal or gasket or other problem is identified, or when detectable emissions are measured, first efforts at repair shall be made as soon as practicable, but not later than 45 calendar days after identification."

[40 CFR 61.350]

"(a) Delay of repair of facilities or units that are subject to the provisions of this subpart will be allowed if the repair is technically impossible without a complete or partial facility or unit shutdown.

(b) Repair of such equipment shall occur before the end of the next facility or unit shutdown."

c. 40 CFR 61 Subpart FF oil-water separator(s) indicated in the Emission Units/Description Table:

[40 CFR 61.347]

"(b) Each cover seal, access hatch, and all other openings shall be checked by visual inspection initially and quarterly thereafter to ensure that no cracks or gaps occur between the cover and oil-water separator wall and that access hatches and other openings are closed and gasketed properly.

(c) Except as provided in § 61.350 of this subpart, when a broken seal or gasket or other problem is identified, or when detectable emissions are measured, first efforts at repair shall be made as soon as practicable, but not later than 15 calendar days after identification."

[40 CFR 61.350]

"(a) Delay of repair of facilities or units that are subject to the provisions of this subpart will be allowed if the repair is technically impossible without a complete or partial facility or unit shutdown.

(b) Repair of such equipment shall occur before the end of the next facility or unit shutdown."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

d. Closed vent systems and control devices (carbon canisters) controlling the 40 CFR 61 Subpart FF oil-water separator(s) and tank (s) indicated in the Emission Units/Description Table:

[40 CFR 61.354

"(d) For a carbon adsorption system that does not regenerate the carbon bed directly on site in the control device (e.g., a carbon canister), either the concentration level of the organic compounds or the concentration level of benzene 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 either the organic concentration or the benzene concentration in the gas stream vented to the carbon adsorption system.

(e) An alternative operation 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.

(f) Owners or operators using a closed-vent system that contains any bypass line that could divert a vent stream from a control device used to comply with the provisions of this subpart shall do the following:

(1) Visually inspect the bypass line valve at least once every month, checking the position of the valve and the condition of the car-seal or closure mechanism required under § 61.349(a)(1)(ii) to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line.

(2) Visually inspect the readings from each flow monitoring device required by § 61.349(a)(1)(ii) at least once each operating day to check that vapors are being routed to the control device as required."

e. 40 CFR 63 Subpart GGGGG storage tank(s) indicated in the Emission Units/Description Table:

[40 CFR 63.695]

"(b)(3) Owners and operators that use a tank equipped with a fixed roof in accordance with the provisions of §63.685(g) of this subpart shall meet the following requirements:

(i) The fixed roof and its closure devices shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the separator wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices. In the case when a tank is buried partially or entirely underground, inspection is required only for those portions of the cover that extend to or above the ground surface, and those connections that are on such portions of the cover (e.g., fill ports, access hatches, gauge wells, etc.) and can be opened to the atmosphere.

(ii) The owner or operator must perform an initial inspection following installation of the fixed roof. Thereafter, the owner or operator must perform the inspections at least once every calendar year except as provided for in paragraph (f) of this section.

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (b)(4) of this section.

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in §63.696(e) of this subpart.

(b)(4) The owner or operator shall repair each defect detected during an inspection performed in accordance with the requirements of paragraph (b)(1), (b)(2), or (b)(3) of this section in the following manner:

(i) The owner or operator shall within 45 calendar days of detecting the defect either repair the defect or empty the tank and remove it from service. If within this 45-day period the defect cannot be repaired or the tank cannot be removed from service without disrupting operations at the plant site, the owner or operator is allowed two 30-day extensions. In cases when an owner or operator elects to use a 30-day extension, the owner or operator shall prepare and maintain documentation describing the defect, explaining why alternative storage capacity is not available, and specify a schedule of actions that will ensure that the control equipment will be repaired or the tank emptied as soon as possible.

(ii) When a defect is detected during an inspection of a tank that has been emptied and degassed, the owner or operator shall repair the defect before refilling the tank."

[40 CFR 63.7897]

"(b) You must inspect and monitor each of your tanks using Tank Level 2 controls according to the requirements in paragraphs (b)(1) through (5), as applicable to your tanks."

"(3) If you use a fixed roof vented to a control device according to §63.7895(d)(3), you must meet requirements in paragraphs (b)(3)(i) and (ii) of this section.

(i) You must visually inspect the fixed roof and closure devices for defects according to the requirements in §63.695(b)(3).

(ii) You must monitor and inspect the closed vent system and control device according to the requirements in §63.7927 that apply to you."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

f. Closed vent systems and control devices (carbon canisters) controlling the 40 CFR 63 Subpart GGGGG process vent(s) and storage tank (s) indicated in the Emission Units/Description Table:

[40 CFR 63.695]

"(c) Owners and operators that use a closed-vent system in accordance with the provisions of §63.693 of this subpart shall meet the following inspection and monitoring requirements:

(1) Each closed-vent system that is used to comply with §63.693(c)(1)(i) of this subpart shall be inspected and monitored in accordance with the following requirements:

(i) At initial startup, the owner or operator shall monitor the closed-vent system components and connections using the procedures specified in §63.694(k) of this subpart to demonstrate that the closed-vent system operates with no detectable organic emissions.

(ii) After initial startup, the owner or operator shall inspect and monitor the closed-vent system as follows:

(A) Closed-vent system joints, seams, or other connections that are permanently or semi-permanently sealed (e.g., a welded joint between two sections of hard piping or a bolted and gasketed ducting flange) shall be visually inspected at least once per year to check for defects that could result in air emissions. The owner or operator shall monitor a component or connection using the procedures specified in §63.694(k) of this subpart to demonstrate that it operates with no detectable organic emissions following any time the component is repaired or replaced (e.g., a section of damaged hard piping is replaced with new hard piping) or the connection is unsealed (e.g., a flange is unbolted).

(B) Closed-vent system components or connections other than those specified in paragraph (c)(1)(ii)(A) of this section, shall be monitored at least once per year using the procedures specified in §63.694(k) of this subpart to demonstrate that components or connections operate with no detectable organic emissions.

(C) The continuous monitoring system required by §63.693(b)(4)(i) shall monitor and record either an instantaneous data value at least once every 15 minutes or an average value for intervals of 15 minutes or less.

(D) The owner or operator shall visually inspect the seal or closure mechanism required by §63.693(c)(2)(ii) at least

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

once every month to verify that the bypass mechanism is maintained in the closed position.

(iii) In the event that a defect or leak is detected, the owner or operator shall repair the defect or leak in accordance with the requirements of paragraph (c)(3) of this section.

(iv) The owner or operator shall maintain a record of the inspection and monitoring in accordance with the requirements specified in §63.696 of this subpart.

(2) Each closed-vent system that is used to comply with §63.693(c)(1)(ii) of this subpart shall be inspected and monitored in accordance with the following requirements:

(i) The closed-vent system shall be visually inspected by the owner or operator to check for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in ductwork or piping; loose connections; or broken or missing caps or other closure devices.

(ii) The owner or operator must perform an initial inspection following installation of the closed-vent system. Thereafter, the owner or operator must perform the inspections at least once every calendar year except as provided for in paragraph (f) of this section.

(iii) In the event that a defect is detected, the owner or operator shall repair the defect in accordance with the requirements of paragraph (c)(3) of this section.

(iv) The owner or operator shall maintain a record of the inspection in accordance with the requirements specified in §63.696 of this subpart.

(3) The owner or operator shall repair all detected defects as follows:

(i) The owner or operator shall make first efforts at repair of the defect no later than 5 calendar days after detection and repair shall be completed as soon as possible but no later than 45 calendar days after detection.

(ii) Repair of a defect may be delayed beyond 45 calendar days if either of the conditions specified in paragraph (c)(3)(ii)(A) or (c)(3)(ii)(B) occurs. In this case, the owner or operator must repair the defect the next time the process or unit that vents to the closed-vent system is shutdown. Repair of the defect must be completed before the process or unit resumes operation.

(A) Completion of the repair is technically infeasible without the shutdown of the process or unit that vents to the closed-vent system.

(B) The owner or operator determines that the air emissions resulting from the repair of the defect within the specified period would be greater than the fugitive emissions likely to

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

result by delaying the repair until the next time the process or unit that vents to the closed-vent system is shutdown.

(iii) The owner or operator shall maintain a record of the defect repair in accordance with the requirements specified in §63.696 of this subpart."

[40 CFR 63.7927]

"(a) You must comply with the requirements in paragraphs (a)(1) and (2) of this section for each closed vent system.

(1) You must monitor and inspect each closed vent system according to the requirements in either paragraph (a)(1)(i) or (ii) of this section.

(i) You must monitor, inspect, and repair defects according to the requirements in §63.695(c)(1)(ii) through (c)(3); or

(ii) You must monitor and inspect the closed vent system according to the requirements in §63.172(f) through (j) and record the information in §63.181.

(2) If your closed vent system includes a bypass device, you must meet the requirements in either paragraph (a)(2)(i) or (ii) of this section.

(i) Use a flow indicator to determine if the presence of flow according to the requirements in §63.693(c)(2)(i); or

(ii) Use a seal or locking device and make monthly inspections as required by §63.693(c)(2)(ii)."

"(c) If you use a nonregenerable carbon adsorption system, you must use a CPMS to measure and record the hourly average temperature of the adsorption bed or you must monitor the concentration of organic compounds in the exhaust vent stream according to the requirements in §63.693(d)(4)(iii)(A)."

[40 CFR 63.172]

"(f) Except as provided in paragraphs (k) and (l) of this section, each closed-vent system shall be inspected according to the procedures and schedule specified in paragraphs (f)(1) and (f)(2) of this section.

(1) If the closed-vent system is constructed of hard-piping, the owner or operator shall:

(i) Conduct an initial inspection according to the procedures in paragraph (g) of this section, and

(ii) Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

(2) If the vapor collection system or closed-vent system is constructed of duct work, the owner or operator shall:

(i) Conduct an initial inspection according to the procedures in paragraph (g) of this section, and

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

(ii) Conduct annual inspections according to the procedures in paragraph (g) of this section.

(g) Each closed-vent system shall be inspected according to the procedures in §63.180(b) of this subpart.

(h) Leaks, as indicated by an instrument reading greater than 500 parts per million above background or by visual inspections, shall be repaired as soon as practicable, except as provided in paragraph (i) of this section.

(1) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

(2) Repair shall be completed no later than 15 calendar days after the leak is detected, except as provided in paragraph (i) of this section.

(i) Delay of repair of a closed-vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

(j) For each closed-vent system that contains bypass lines that could divert a vent stream away from the control device and to the atmosphere, the owner or operator shall comply with the provisions of either paragraph (j)(1) or (j)(2) of this section, except as provided in paragraph (j)(3) of this section.

(1) Install, set or adjust, maintain, and operate a flow indicator that takes a reading at least once every 15 minutes. Records shall be generated as specified in §63.118(a)(3) of subpart G of this part. The flow indicator shall be installed at the entrance to any bypass line; or

(2) Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure the valve is maintained in the non-diverting position and the vent stream is not diverted through the bypass line.

(3) Equipment such as low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, and pressure relief valves needed for safety purposes are not subject to this paragraph."

[40 CFR 63.7928]

"(b) You must demonstrate continuous compliance with the closed vent system work practice standards in §63.7925(c) by meeting the requirements in paragraphs (b)(1) through (7) of this section.

(1) For a closed vent system designed to operate with no detectable organic emissions, visually inspecting the closed vent system at least annually, monitoring after a repair or replacement using the procedures in §63.694(k), and monitoring at least annually according to the requirements in §63.695(c)(1)(ii).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

(2) For a closed vent system designed to operate below atmospheric pressure, visually inspecting the closed vent system at least annually according to the requirements in §63.695(c)(2)(ii).

(3) Repairing defects according to the requirements in §63.695(c)(3).

(4) Keeping records of each inspection that include the information in paragraphs (b)(4)(i) through (iii) of this section:

(i) A closed vent system identification number (or other unique identification description you select).

(ii) Date of each inspection.

(iii) If a defect is detected during an inspection, the location of the defect, a description of the defect, the date of detection, the corrective action taken to repair the defect, and if repair is delayed, the reason for any delay and the date completion of the repair is expected.

(5) If you elect to monitor the closed vent system according to the requirements in §63.172(f) through (j), recording the information in §63.181.

(6) If the closed vent system is equipped with a flow indicator, recording the information in §63.693(c)(2)(i).

(7) If the closed vent system is equipped with a seal or locking device, visually inspecting the seal or closure mechanism at least monthly according to the requirements in §63.693(c)(2)(ii), and recording the results of each inspection."

"(f) You must demonstrate continuous compliance with the spent carbon replacement and disposal work practice standards for nonregenerable carbon adsorption systems in §63.7925(h)(2) by meeting the requirements in paragraphs (f)(1) through (3) of this section.

(1) Replacing the adsorbent as required by the work practice standard in §63.7925(h)(2)(i).

(2) Following the disposal requirements for spent carbon in §63.693(d)(4)(ii).

(3) Keeping records to document compliance with the requirements of the work practice standards.

(g) You must demonstrate continuous compliance with the spent carbon replacement and disposal work practice standards for nonregenerable carbon adsorption systems in §63.7925(h)(3) by meeting the requirements in paragraphs (g)(1) through (3) of this section.

(1) Monitoring the concentration level of the organic compounds in the exhaust vent for the carbon adsorption system as required in §63.7927(c), immediately replacing the carbon canister or carbon in the control device when breakthrough is indicated by the monitoring device, and recording the date of breakthrough and carbon replacement. Or, you must replace the carbon canister or carbon in the control device at regular intervals and record the date of carbon replacement.

(2) Following the disposal requirements for spent carbon in §63.693(d)(4)(ii).

(3) Keeping records to document compliance with the requirements of the work practice standards."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

[40 CFR 63.694]

"*(k) Procedure for determining no detectable organic emissions for the purpose of complying with this subpart.*

(1) The test shall be conducted in accordance with the procedures specified in Method 21 of 40 CFR part 60, appendix A. Each potential leak interface (i.e., a location where organic vapor leakage could occur) on the cover and associated closure devices shall be checked. Potential leak interfaces that are associated with covers and closure devices include, but are not limited to: the interface of the cover and its foundation mounting; the periphery of any opening on the cover and its associated closure device; and the sealing seat interface on a spring-loaded pressure-relief valve.

(2) The test shall be performed when the unit contains a material having a total organic concentration representative of the range of concentrations for the materials expected to be managed in the unit. During the test, the cover and closure devices shall be secured in the closed position.

(3) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the organic constituents in the material placed in the unit, not for each individual organic constituent.

(4) The detection instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.

(5) Calibration gases shall be as follows:

(i) Zero air (less than 10 ppmv hydrocarbon in air); and

(ii) A mixture of methane or n-hexane in air at a concentration of approximately, but less than, 10,000 ppmv.

(6) An owner or operator may choose to adjust or not adjust the detection instrument readings to account for the background organic concentration level. If an owner or operator chooses to adjust the instrument readings for the background level, the background level value must be determined according to the procedures in Method 21 of 40 CFR part 60, appendix A.

(7) Each potential leak interface shall be checked by traversing the instrument probe around the potential leak interface as close to the interface as possible, as described in Method 21. In the case when the configuration of the cover or closure device prevents a complete traverse of the interface, all accessible portions of the interface shall be sampled. In the case when the configuration of the closure device prevents any sampling at the interface and the device is equipped with an enclosed extension or horn (e.g., some pressure relief devices), the instrument probe inlet shall be placed at approximately the center of the exhaust area to the atmosphere.

(8) An owner or operator must determine if a potential leak interface operates with no detectable emissions using the applicable procedure specified in paragraph (k)(8)(i) or (k)(8)(ii) of this section.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

4. <u>Specific Monitoring Requirements (Continued)</u>:

(i) If an owner or operator chooses not to adjust the detection instrument readings for the background organic concentration level, then the maximum organic concentration value measured by the detection instrument is compared directly to the applicable value for the potential leak interface as specified in paragraph (k)(9) of this section.

(ii) If an owner or operator chooses to adjust the detection instrument readings for the background organic concentration level, the value of the arithmetic difference between the maximum organic concentration value measured by the instrument and the background organic concentration value as determined in paragraph (k)(6) of this section is compared with the applicable value for the potential leak interface as specified in paragraph (k)(9) of this section.

(9) A potential leak interface is determined to operate with no detectable emissions using the applicable criteria specified in paragraphs (k)(9)(i) and (k)(9)(ii) of this section.

(i) For a potential leak interface other than a seal around a shaft that passes through a cover opening, the potential leak interface is determined to operate with no detectable organic emissions if the organic concentration value determined in paragraph (k)(8) is less than 500 ppmv.

(ii) For a seal around a shaft that passes through a cover opening, the potential leak interface is determined to operate with no detectable organic emissions if the organic concentration value determined in paragraph (k)(8) is less than 10,000 ppmv.

5. <u>Specific Recordkeeping Requirements</u>:

a. 40 CFR 61 Subpart FF containers, oil-water separator(s), and tank (s) indicated in the Emission Units/Description Table:

[40 CFR 61.356]

"(a) Each owner or operator of a facility subject to the provisions of this subpart shall comply with the record keeping requirements of this section. Each record shall be maintained in a readily accessible location at the facility site for a period not less than two years from the date the information is recorded unless otherwise specified.

(b) Each owner or operator shall maintain records that identify each waste stream at the facility subject to this subpart, and indicate whether or not the waste stream is controlled for benzene emissions in accordance with this subpart."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

5. <u>Specific Recordkeeping Requirements (Continued)</u>:

"(g) An owner or operator shall maintain a record for each visual inspection required by §§ 61.343 through 61.347 of this subpart that identifies a problem (such as a broken seal, gap or other problem) which could result in benzene emissions. The record shall include the date of the inspection, waste management unit and control equipment location where the problem is identified, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed.

(h) An owner or operator shall maintain a record for each test of no detectable emissions required by §§ 61.343 through 61.347 and § 61.349 of this subpart. The record shall include the following information: date the test is performed, background level measured during test, and maximum concentration indicated by the instrument reading measured for each potential leak interface. If detectable emissions are measured at a leak interface, then the record shall also include the waste management unit, control equipment, and leak interface location where detectable emissions were measured, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed."

b. Closed vent systems and control devices (carbon canisters) controlling the 40 CFR 61 Subpart FF oil-water separator(s) and tank (s) indicated in the Emission Units/Description Table:

[40 CFR 61.356]

"(d) An owner or operator using control equipment in accordance with §§ 61.343 through 61.347 shall maintain engineering design documentation for all control equipment that is installed on the waste management unit. The documentation shall be retained for the life of the control equipment. If a control device is used, then the owner or operator shall maintain the control device records required by paragraph (f) of this section."

"(f) An owner or operator using a closed-vent system and control device in accordance with § 61.349 of this subpart shall maintain the following records. The documentation shall be retained for the life of the control device.

(1) A statement signed and dated by the owner or operator certifying that the closed-vent system and control device is designed to operate at the documented performance level when the waste management unit vented to the control device is or would be operating at the highest load or capacity expected to occur.

(2) If engineering calculations are used to determine control device performance in accordance with § 61.349(c), then a design analysis for the control device that includes for example:

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

5. <u>Specific Recordkeeping Requirements (Continued)</u>:

(i) Specifications, drawings, schematics, and piping and instrumentation diagrams prepared by the owner or operator, or the control device manufacturer or vendor that describe the control device design based on acceptable engineering texts. The design analysis shall address the following vent stream characteristics and control device operating parameters:"

"(G) For a carbon adsorption system that does not regenerate the carbon bed directly on-site in the control device, such as a carbon canister, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene 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."

"(j) For each control device, the owner or operator shall maintain documentation that includes the following information regarding the control device operation:

(1) Dates of startup and shutdown of the closed-vent system and control device.

(2) A description of the operating parameter (or parameters) to be monitored to ensure that the control device will be operated in conformance with these standards and the control device's design specifications and an explanation of the criteria used for selection of that parameter (or parameters). This documentation shall be kept for the life of the control device.

(3) Periods when the closed-vent system and control device are not operated as designed including all periods and the duration when:

(i) Any valve car-seal or closure mechanism required under § 61.349(a)(1)(ii) is broken or the by-pass line valve position has changed.

(ii) The flow monitoring devices required under § 61.349(a)(1)(ii) indicate that vapors are not routed to the control device as required."

"(10) If a carbon adsorber that is not regenerated directly on site 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 then the existing carbon in the control device is replaced with fresh carbon.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

5. <u>Specific Recordkeeping Requirements (Continued)</u>:

(11) If an alternative operational or process parameter is monitored for a control device, as allowed in § 61.354(e) of this subpart, then the owner or operator shall maintain records of the continuously monitored parameter, including periods when the device is not operated as designed."

c. 40 CFR 63 Subpart GGGGG storage tank(s) indicated in the Emission Units/Description Table:

[40 CFR 63.696]

"(e) Each owner or operator using a fixed roof to comply with the tank control requirements specified in §63.685(g) of this subpart shall prepare and maintain the following records:

(1) A record for each inspection required by §63.695(b) of this subpart, as applicable to the tank, that includes the following information: a tank identification number (or other unique identification description as selected by the owner or operator) and the date of inspection.

(2) The owner or operator shall record for each defect detected during inspections required by §63.695(b) of this subpart the following information: the location of the defect, a description of the defect, the date of detection, and corrective action taken to repair the defect. In the event that repair of the defect is delayed in accordance with the provisions of §63.695(b)(4) of this section, the owner or operator shall also record the reason for the delay and the date that completion of repair of the defect is expected."

d. 40 CFR 63 Subpart GGGGG process vent(s), storage tank(s), and closed vent systems and control devices (carbon canisters) indicated in the Emission Units/Description Table:

[40 CFR 63.7952]

"(a) You must keep the records specified in paragraphs (a)(1) through (4) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirements in §63.10(b)(1) and (b)(2)(xiv).

(2) The records in §63.6(e)(3)(iii) through (v) related to startups, shutdowns, and malfunctions.

(3) Results of performance tests and performance evaluations as required by §63.10(b)(2)(viii).

(4) The records of initial and ongoing determinations for affected sources that are exempt from control requirements under this subpart.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

5. <u>Specific Recordkeeping Requirements (Continued)</u>:

(b) For each continuous monitoring system, you must keep the records as described in paragraphs (b)(1) and (2) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi) that apply to your continuous monitoring system.

(2) Performance evaluation plans, including previous (i.e., superseded) versions of the plan as required in §63.8(d)(3).

(c) You must keep the records required by this subpart to show continuous compliance with each emissions limitation, work practice standard, and operation and maintenance requirement that applies to you.

(d) You must record, on a semiannual basis, the information in §63.696(g) for planned routine maintenance of a control device for emissions from process vents."

[40 CFR 63.7953]

"(a) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep your files of all information (including all reports and notifications) for 5 years following the date of each occurrence, measurement, maintenance, action taken to correct the cause of a deviation, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You can keep the records off-site for the remaining 3 years.

(d) If, after the remediation activity is completed, there is no other remediation activity at the facility, and you are no longer the owner of the facility, you may keep all records for the completed remediation activity at an off-site location provided you notify the Administrator in writing of the name, address and contact person for the off-site location."

6. <u>Specific Reporting Requirements</u>:

a. The 40 CFR 61.357 reports listed below may be incorporated into and submitted on the same schedule as the 40 CFR 61.357 reports currently being submitted by Catlettsburg Refining, LLC.

b. **40 CFR 61 Subpart FF containers, oil-water separator(s), and tank (s) indicated in the Emission Units/Description Table**:

[40 CFR 61.357]

"(d)(2) Beginning on the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of this section, the owner or operator shall submit annually to the Administrator a report that updates the information listed in paragraphs (a)(1) through (a)(3) of this section.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

If the information in the annual report required by paragraphs (a)(1) through (a)(3) of this section is not changed in the following year, the owner or operator may submit a statement to that effect."

"(6) Beginning 3 months after the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of this section, the owner or operator shall submit quarterly to the Administrator a certification that all of the required inspections have been carried out in accordance with the requirements of this subpart."

(8) Beginning one year after the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of this section, the owner or operator shall submit annually to the Administrator a report that summarizes all inspections required by §§ 61.342 through 61.354 during which detectable emissions are measured or a problem (such as a broken seal, gap or other problem) that could result in benzene emissions is identified, including information about the repairs or corrective action taken."

c. Closed vent systems and control devices (carbon canisters) controlling the 40 CFR 61 Subpart FF oil-water separator(s) and tank (s) indicated in the Emission Units/Description Table:

[40 CFR 61.357]
"(d)(7) Beginning 3 months after the date that the equipment necessary to comply with these standards has been certified in accordance with paragraph (d)(1) of this section, the owner or operator shall submit a report quarterly to the Administrator that includes:"

"(iv) For a control device monitored in accordance with § 61.354(c) of this subpart, each period of operation monitored during which any of the following conditions occur, as applicable to the control device:"

"(I) Each occurrence when the carbon in a carbon adsorber system that is not regenerated directly on site in the control device is not replaced at the predetermined interval specified in § 61.354(c) of this subpart. "

d. 40 CFR 63 Subpart GGGGG process vent(s) indicated in the Emission Units/Description Table:

[40 CFR 63.7937]
"(b) You must demonstrate initial compliance with the general standards in §63.7885 that apply to your affected process vents by meeting the requirements in paragraphs (b)(1) through (4) of this section, as applicable to your process vents.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

(1) If HAP emissions are controlled from the affected process vents according to the emission limitations and work practice standards specified in §63.7885(b)(1), you have met the initial compliance requirements in §63.7891.

(2) If the remediation material treated or managed by the process vented through the affected process vents has an average total VOHAP less than 10 ppmw according to §63.7885(b)(2), you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have determined, according to the procedures §63.7943, and recorded the average VOHAP concentration of the remediation material placed in the affected remediation material management unit.

(3) If HAP emissions are controlled from the affected process vents to meet standards in another subpart under 40 CFR part 61 or 40 CFR part 63 according to §63.7885(b)(3), you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (b)(3)(i) and (ii) of this section.

(i) You include in your statement the citations for the specific emission limitations and work practice standards that apply to the process vents under the subpart in 40 CFR part 61 or 40 CFR part 63 that the vents are also subject.

(ii) You are complying with all applicable emissions limitations and work practice standards specified by the applicable subpart."

e. 40 CFR 63 Subpart GGGGG storage tank(s) indicated in the Emission Units/Description Table:

[40 CFR 63.7937]

"(c) You must demonstrate initial compliance with the general standards in §63.7886 that apply to your affected remediation material management units by meeting the requirements in paragraphs (c)(1) through (6) of this section, as applicable to your remediation material management units."

"(3) If HAP emissions are controlled from the affected remediation material management units to meet standards in another subpart under 40 CFR part 61 or 40 CFR part 63 according to §63.7886(b)(3), you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (c)(3)(i) and (ii) of this section.

(i) You include in your statement the citations for the specific emission limitations and work practice standards that apply to the remediation material management units under the subpart in 40 CFR part 61 or 40 CFR part 63 that the units are also subject.

(ii) You are complying with all applicable emissions limitations and work practice standards specified by the applicable subpart."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

f. 40 CFR 63 Subpart GGGGG process vent(s), storage tank(s), and closed vent systems and control devices (carbon canisters) indicated in the Emission Units/Description Table:

[40 CFR 63.7937]

"(e) If you are required to conduct a performance test, design evaluation, or other initial compliance demonstration, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration that includes a performance test or design evaluation, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to §63.10(d)(2). You must submit the complete design evaluation and supporting documentation.

(2) For each initial compliance demonstration that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th calendar day following the completion of the initial compliance demonstration.

(f) You must provide written notification to the Administrator of the alternative standard selected under §63.1006(b)(5) or (6) before implementing either of the provisions."

[40 CFR 63.7951]

"(a) Compliance report due dates. Unless the Administrator has approved a different schedule, you must submit a semiannual compliance report to your permitting authority according to the requirements specified in paragraphs (a)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.7883 and ending on June 30 or December 31, whichever date comes first after the compliance date that is specified for your affected source.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after your first compliance report is due.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of the dates specified in paragraphs (a)(1) through (4) of this section.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

(b) Compliance report contents. Each compliance report must include the information specified in paragraphs (b)(1) through (3) of this section and, as applicable, paragraphs (b)(4) through (9) of this section.

(1) Company name and address.

(2) 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.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If you had a startup, shutdown, or malfunction during the reporting period and you took action consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in §63.10(d)(5)(i).

(5) If there were no deviations from any emissions limitations (including operating limit), work practice standards, or operation and maintenance requirements, a statement that there were no deviations from the emissions limitations, work practice standards, or operation and maintenance requirements during the reporting period.

(6) If there were no periods during which a continuous monitoring system (including a CPMS or CEMS) was out-of-control as specified by §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

(7) For each deviation from an emissions limitation (including an operating limit) that occurs at an affected source for which you are not using a continuous monitoring system (including a CPMS or CEMS) to comply with an emissions limitation or work practice standard required in this subpart, the compliance report must contain the information specified in paragraphs (b)(1) through (4) and (b)(7)(i) and (ii) of this section. This requirement includes periods of startup, shutdown, and malfunction.

(i) The total operating time of each affected source during the reporting period.

(ii) Information on the number, duration, and cause of deviations (including unknown cause) as applicable and the corrective action taken."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

(8) For each deviation from an emissions limitation (including an operating limit) or work practice standard occurring at an affected source where you are using a continuous monitoring system (including a CPMS or CEMS) to comply with the emissions limitations or work practice standard in this subpart, you must include the information specified in paragraphs (b)(1) through (4) and (b)(8)(i) through (xi) of this section. This requirement includes periods of startup, shutdown, and malfunction.

(i) The date and time that each malfunction started and stopped.

(ii) The date and time that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.

(iii) The date, time, and duration that each continuous monitoring system was out-of-control, including the information in §63.8(c)(8).

(iv) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(v) A summary of the total duration of the deviations during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(vi) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems, process problems, other known causes, and unknown causes.

(vii) A summary of the total duration of continuous monitoring system downtime during the reporting period and the total duration of continuous monitoring system downtime as a percent of the total source operating time during the reporting period.

(viii) A brief description of the process units.

(ix) A brief description of the continuous monitoring system.

(x) The date of the latest continuous monitoring system certification or audit.

(xi) A description of any changes in continuous monitoring systems, processes, or controls since the last reporting period.

(9) You must include the information on equipment leaks required in periodic reports by §63.1018(a) or §63.1039(b).

(c) Immediate startup, shutdown, and malfunction report. If you had a startup, shutdown, or malfunction during the semiannual reporting period that was not consistent with your startup, shutdown, and malfunction plan, you must submit an immediate startup, shutdown, and malfunction report according to the requirements of §63.10(d)(5)(ii).

(d) Part 70 monitoring report. If you have obtained a title V operating permit for an affected source pursuant to 40 CFR part 70 or 40 CFR part 71, you must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If you

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

6. <u>Specific Reporting Requirements (Continued)</u>:

submit a compliance report for an affected source along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all the required information concerning deviations from any emissions limitation or operation and maintenance requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation you may have to report deviations from permit requirements for an affected source to your permitting authority.

7. <u>Specific Control Equipment Operating Conditions</u>:

a. Closed vent systems and control devices (carbon canisters) controlling the 40 CFR 61 Subpart FF oil-water separator(s) and tank (s) indicated in the Emission Units/Description Table:

[40 CFR 61.349]
"(a) For each closed-vent system and control device used to comply with standards in accordance with §§ 61.343 through 61.348 of this subpart, the owner or operator shall properly design, install, operate, and maintain the closed-vent system and control device in accordance with the following requirements:

(1) The closed-vent system shall:

(i) Be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in § 61.355(h) of this subpart.

(ii) Vent systems that contain any bypass line that could divert the vent stream away from a control device used to comply with the provisions of this subpart shall install, maintain, and operate according to the manufacturer's specifications a flow indicator that provides a record of vent stream flow away from the control device at least once every 15 minutes, except as provided in paragraph (a)(1)(ii)(B) of this section.

(A) The flow indicator shall be installed at the entrance to any bypass line that could divert the vent stream away from the control device to the atmosphere.

(B) Where the bypass line valve is secured in the closed position with a car-seal or a lock-and-key type configuration, a flow indicator is not required.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

7. <u>Specific Control Equipment Operating Conditions (Continued)</u>:

(iii) All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place.

(iv) For each closed-vent system complying with paragraph (a) of this section, one or more devices which vent directly to the atmosphere may be used on the closed-vent system provided each device remains in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the closed-vent system resulting from malfunction of the unit in accordance with good engineering and safety practices for handling flammable, explosive, or other hazardous materials.

(2) The control device shall be designed and operated in accordance with the following conditions:

(iv) A control device other than those described in paragraphs (a)(2) (i) through (iii) of this section may be used provided that the following conditions are met:

(A) The device shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater.

(B) The owner or operator shall develop test data and design information that documents the control device will achieve an emission control efficiency of either 95 percent or greater for organic compounds or 98 percent or greater for benzene.

(C) The owner or operator shall identify:

(1) The critical operating parameters that affect the emission control performance of the device;

(2) The range of values of these operating parameters that ensure the emission control efficiency specified in paragraph (a)(2)(iv)(A) of this section is maintained during operation of the device; and

(3) How these operating parameters will be monitored to ensure the proper operation and maintenance of the device.

(D) The owner or operator shall submit the information and data specified in paragraphs (a)(2)(iv) (B) and (C) of this section to the Administrator prior to operation of the alternative control device.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

7. <u>Specific Control Equipment Operating Conditions (Continued)</u>:

(E) The Administrator will determine, based on the information submitted under paragraph (a)(2)(iv)(D) of this section, if the control device subject to paragraph (a)(2)(iv) of this section meets the requirements of § 61.349. The control device subject to paragraph (a)(2)(iv) of this section may be operated prior to receiving approval from the Administrator. However, if the Administrator determines that the control device does not meet the requirements of § 61.349, the facility may be subject to enforcement action beginning from the time the control device began operation.

(b) Each closed-vent system and control device used to comply with this subpart shall be operated at all times when waste is placed in the waste management unit vented to the control device except when maintenance or repair of the waste management unit cannot be completed without a shutdown of the control device.

(c) An owner and operator shall demonstrate that each control device, except for a flare, achieves the appropriate conditions specified in paragraph (a)(2) of this section by using one of the following methods:

(1) Engineering calculations in accordance with requirements specified in § 61.356(f) of this subpart; or

(2) Performance tests conducted using the test methods and procedures that meet the requirements specified in § 61.355 of this subpart."

"(e) The Administrator may request at any time an owner or operator demonstrate that a control device meets the applicable conditions specified in paragraph (a)(2) of this section by conducting a performance test using the test methods and procedures as required in § 61.355, and for control devices subject to paragraph (a)(2)(iv) of this section, the Administrator may specify alternative test methods and procedures, as appropriate.

(f) Each closed-vent system and control device shall be visually inspected initially and quarterly thereafter. The visual inspection shall include inspection of ductwork and piping and connections to covers and control devices for evidence of visible defects such as holes in ductwork or piping and loose connections.

(g) Except as provided in § 61.350 of this subpart, if visible defects are observed during an inspection, or if other problems are identified, or if detectable emissions are measured, a first effort to repair the closed-vent system and control device shall be made as soon as practicable but no later than 5 calendar days after detection. Repair shall be completed no later than 15 calendar days after the emissions are detected or the visible defect is observed.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

7. <u>Specific Control Equipment Operating Conditions (Continued)</u>:

(h) The owner or operator of a control device that is used to comply with the provisions of this section shall monitor the control device in accordance with § 61.354(c) of this subpart."

b. Closed vent systems and control devices (carbon canisters) controlling the 40 CFR 63 Subpart GGGGG process vent(s) and storage tank (s) indicated in the Emission Units/Description Table:

[40 CFR 63.7925]

"(a) For each closed-vent system and control device you use to comply with requirements in §§63.7890 through 63.7922, as applicable to your affected sources, you must meet the emissions limitations and work practice standards in this section.

(b) Whenever gases or vapors containing HAP are vented through the closed-vent system to the control device, the control device must be operating except at those times listed in either paragraph (b)(1) or (2) of this section.

(1) The control device may be bypassed for the purpose of performing planned routine maintenance of the closed-vent system or control device in situations when the routine maintenance cannot be performed during periods that the emission point vented to the control device is shutdown. On an annual basis, the total time that the closed-vent system or control device is bypassed to perform routine maintenance must not exceed 240 hours per each calendar year.

(2) The control device may be bypassed for the purpose of correcting a malfunction of the closed-vent system or control device. You must perform the adjustments or repairs necessary to correct the malfunction as soon as practicable after the malfunction is detected.

(c) For each closed vent system, you must meet the work practice standards in §63.693(c).

(d) For each control device other than a flare or a control device used to comply with the facility-wide process vent emission limits in §63.7890(b), you must control HAP emissions to meet either of the emissions limits in paragraphs (d)(1) or (2) of this section except as provided for in paragraph (f) of this section.

(1) Reduce emissions of total HAP listed in Table 1 of this subpart or TOC (minus methane and ethane) from each control device by 95 percent by weight; or"

"(g) For each control device other than a flare, you must meet each operating limit in paragraphs (g)(1) through (6) of this section that applies to your control device."

"(2) If you use a nonregenerable carbon adsorption system, you must maintain the hourly average temperature of the adsorption bed less than or equal to the temperature established during the design evaluation or performance test."

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

7. <u>Specific Control Equipment Operating Conditions (Continued)</u>:

"(h) If you use a carbon adsorption system as your control, you must meet each work practice standard in paragraphs (h)(1) through (3) of this section that applies to your control device."

"(2) If you use a nonregenerable carbon adsorption system, you must:

(i) Replace the existing adsorbent in each segment of the bed with an adsorbent that meets the replacement specifications established during the design evaluation before the age of the adsorbent exceeds the maximum allowable age established during the design evaluation.

(ii) Meet the disposal requirements for spent carbon in §63.693(d)(4)(ii).

(3) If you use a nonregenerative carbon adsorption system, you may choose to comply with the requirements in paragraphs (h)(3)(i) and (ii) of this section as an alternative to the requirements in paragraph (h)(2) of this section. You must:

(i) Immediately replace the carbon canister or carbon in the control device when the monitoring device indicates breakthrough has occurred according to the requirements in §63.693(d)(4)(iii)(A), or replace the carbon canister or carbon in the control device at regular intervals according to the requirements in §63.693(d)(4)(iii)(B).

(ii) Follow the disposal requirements for spent carbon in §63.693(d)(4)(ii)."

"(j) As provided in §63.6(g), you may request approval from the EPA to use an alternative to the work practice standards in this section that apply to your closed vent systems and control devices. If you request for permission to use an alternative to the work practice standards, you must submit the information described in §63.6(g)(2)."

[40 CFR 63.693]

"(c) Closed-vent system requirements.

(1) The vent stream required to be controlled shall be conveyed to the control device by either of the following closed-vent systems:

(i) A closed-vent system that is designed to operate with no detectable organic emissions using the procedure specified in §63.694(k) of this subpart; or

(ii) A closed-vent system that is designed to operate at a pressure below atmospheric pressure. The system shall be equipped with at least one pressure gage or other pressure measurement device that can be read from a readily accessible location to verify that negative pressure is being maintained in the closed-vent system when the control device is operating."

"(3) In situations when the closed-vent system includes bypass devices that could be used to divert a vent stream from the closed-vent system to the atmosphere at a point upstream of the control device inlet, each bypass device must be equipped with either a flow indicator as specified in paragraph (c)(2)(i) of this section or a seal or locking device as specified in paragraph (c)(2)(ii) of this section. For the purpose of complying with this paragraph (c)(2), low leg drains, high point bleeds, analyzer vents, open-ended valves or lines, or pressure relief valves needed for safety reasons are not subject to the requirements of this paragraph (c)(2).

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

7. <u>Specific Control Equipment Operating Conditions (Continued)</u>:

(i) If a flow indicator is used, the indicator must be installed at the entrance to the bypass line used to divert the vent stream from the closed-vent system to the atmosphere. The flow indicator must indicate a reading at least once every 15 minutes. The owner or operator must maintain records of the following information: hourly records of whether the flow indicator was operating and whether flow was detected at any time during the hour; and records of all periods when flow is detected or the flow indicator is not operating.

(ii) If a seal or locking device is used to comply with paragraph (c)(2) of this section, the device shall be placed on the mechanism by which the bypass device position is controlled (e.g., valve handle, damper lever) when the bypass device is in the closed position such that the bypass device cannot be opened without breaking the seal or removing the lock. Examples of such devices include, but are not limited to, a car-seal or a lock-and-key configuration valve."

"(d)(4) The owner or operator shall manage the carbon used for the carbon adsorption system, as follows:"

"(ii) The spent carbon removed from the carbon adsorption system must be either regenerated, reactivated, or burned in one of the units specified in paragraphs (d)(4)(ii)(A) through (d)(4)(ii)(G) of this section.

(A) Regenerated or reactivated in a thermal treatment unit for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 264, subpart X.

(B) Regenerated or reactivated in a thermal treatment unit equipped with and operating air emission controls in accordance with this section.

(C) Regenerated or reactivated in a thermal treatment unit equipped with and operating organic air emission controls in accordance with a national emission standard for hazardous air pollutants under another subpart in 40 CFR part 63 or 40 CFR part 61.

(D) Burned in a hazardous waste incinerator for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 264, subpart O.

(E) Burned in a hazardous waste incinerator for which the owner or operator has designed and operates the incinerator in accordance with the interim status requirements of 40 CFR part 265, subpart O.

(F) Burned in a boiler or industrial furnace for which the owner or operator has been issued a final permit under 40 CFR part 270 that implements the requirements of 40 CFR part 266, subpart H.

(G) Burned in a boiler or industrial furnace for which the owner or operator has designed and operates the unit in accordance with the interim status requirements of 40 CFR part 266, subpart H.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

7. <u>Specific Control Equipment Operating Conditions (Continued)</u>:

(iii) As an alternative to meeting the requirements in paragraphs (d)(3) and (d)(4)(i) of this section, an owner or operator of a nonregenerable carbon adsorption system may choose to replace on a regular basis the carbon canister or the carbon in the control device using the procedures in either paragraph (d)(4)(iii)(A) or (d)(4)(iii)(B) of this section. For the purpose of complying with this paragraph (d)(4)(iii), a nonregenerable carbon adsorption system means a carbon adsorption system that does not regenerate the carbon bed directly onsite in the control device, such as a carbon canister. The spent carbon removed from the nonregenerable carbon adsorption system must be managed according to the requirements in paragraph (d)(4)(ii) of this section.

(A) Monitor the concentration level of the organic compounds in the exhaust vent from the carbon adsorption system on a regular schedule, and when carbon breakthrough is indicated, immediately replace either the existing carbon canister with a new carbon canister or replace the existing carbon in the control device with fresh carbon. Measurement of the concentration level of the organic compounds in the exhaust vent stream must be made with a detection instrument that is appropriate for the composition of organic constituents in the vent stream and is routinely calibrated to measure the organic concentration level expected to occur at breakthrough. The monitoring frequency must be daily or at an interval no greater than 20 percent of the time required to consume the total carbon working capacity established as a requirement of paragraph (d)(2)(ii)(B) of this section, whichever is longer.

(B) Replace either the existing carbon canister with a new carbon canister or replace the existing carbon in the control device with fresh carbon at a regular, predetermined time interval that is less than the design carbon replacement interval established as a requirement of paragraph (d)(2)(ii)(B) of this section.

[40 CFR 63.7926]

"(a)You must demonstrate initial compliance with the emissions limitations and work practice standards in this subpart applicable to your closed vent system and control device by meeting the requirements in paragraphs (b) through (h) of this section that apply to your closed vent system and control device.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS:

REMEDIATION (Continued):

7. <u>Specific Control Equipment Operating Conditions (Continued)</u>:

"(b) You must demonstrate initial compliance with the closed vent system work practice standards in §63.7925(c) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (b)(1) and (2) of this section.

(1) You have installed a closed vent system that meets the requirements in §63.695(c)(1) and (2), and you have records documenting the equipment design and installation.

(2) You have performed the initial inspection of the closed vent system according to the requirements in §63.695(c)(1)(i) or (ii), and you have records documenting the inspection results.

(c) You must demonstrate initial compliance of each control device subject to the emissions limits in §63.7925(d) with the applicable emissions limit in §63.7925(d) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (c)(1) and (2) of this section that apply to you.

(1) For the emissions limit in §63.7925(d)(1), the emissions of total HAP listed in Table 1 of this subpart or TOC (minus methane and ethane) from the control device, measured or determined according to the procedures for performance tests and design evaluations in §63.7941, are reduced by at least 95 percent by weight.

(d) You must demonstrate initial compliance of each control device subject to operating limits in §63.7925(g) with the applicable limits if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you have met the requirements in paragraphs (d)(1) and (2) of this section.

(1) You have established an appropriate operating limit(s) for each of the operating parameter applicable to your control device as specified in §63.7925(g)(1) through (6).

(2) You have a record of the applicable operating parameter data during the performance test or design evaluation during which the emissions met the applicable limit.

(e) You must demonstrate initial compliance with the spent carbon replacement and disposal work practice standards for carbon adsorption systems in §63.7925(h) if you have submitted as part of your notification of compliance status, specified in §63.7950, a signed statement that you will comply with each work practice standard that applies to your carbon adsorption system."

8. <u>Alternate Operating Scenarios</u>:

None

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

TRANSFER RACKS

Refinery ID	Description	Capacity	Date Commenced	Generally Applicable Regulation
1-6-J-02 (RH)	Viney branch asphalt truck loading rack	--	2002	None
1-6-J-03 (RK)	Circle truck loading / unloading rack	--		None
1-6-J-21	Slack wax loading rack	--	1960s	None
1-7-J-06A	# 2 Rail loading / unloading rack	--		None
1-7-J-06B	# 3 Rail loading / unloading rack	--		None
1-7-J-06C	# 4 Rail loading / unloading rack	--		None
1-7-J-06D	# 3 Truck loading rack (PVO)	--		None
2-5-J-01 (RJ)	# 2 Refinery rail loading / unloading rack	--	Reconst 2001	None
2-5-J-03	Sulfur rail and truck loading rack	--		None
2-5-J-04	Propane truck loading rack	--	1980	None
	#3 Road oil tank car loading rack	--	Reconst 2001	None
	Extract Loading, 325 Extract Railcars	--		None

HEATERS, BOILERS AND COMBUSTION DEVICES:

Refinery ID	Description	Capacity	Date Commenced	Generally Applicable Regulation
--	Indirect heat exchanges and process heaters rated less than 1 mmBtu/hr heat input, and fired with natural gas and/or refinery fuel gas	< 1mmBtu/hr	--	40 CFR 60 Subpart J
--	Hot water heaters	--	--	None

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

STORAGE VESSELS

Tank No.	Refinery ID	Contents Description	Capacity (gal)	Date Commenced	Generally Applicable Regulation
1	2-999-TK-1	Gasoline Refueling	1,974	1986	401 KAR 59:050 401 KAR 59:174 401 KAR 59:175
1A	2-999-TK-1A	Gasoline Refueling	1,974	1986	401 KAR 59:050 401 KAR 59:174 401 KAR 59:175
23	1-6-TK-23	Caustic	2,100	1989	None
91	1-35-TK-91	Pressure	29,988	1968	None
92	1-35-TK-92	Pressure	29,988	1968	None
149	1-6-TK-149	Water	21,000	1950	None
309	2-106-TK-309	Sulfur	38,850	1975	None
310	2-106-TK-310	Sulfur	87,990	1992	None
401	2-601-TK-401	Water	50,400	1975	None
402	2-601-TK-402	Water	32,970	1975	None
403	2-601-TK-403	Water	65,100	1975	None
404	2-607-TK-404	Water	142,800	1975	None
469	2-106-TK-469	Empty	252,000	1977	None
470	2-106-TK-470	Empty	252,000	1977	None
583	2-24-TK-583	Caustic			None
597	2-24-TK-597	Caustic			None
	2-27-F-45				None
703	2-106-TK-703	Water	1,827,000	2002	None
704	2-106-TK-704	Water	1,827,000	1981	None
747	2-606-TK-747	Pressure	213,444	1945	None
748	2-606-TK-748	Pressure	213,444	1945	None
749	2-606-TK-749	Pressure	42,000	1945	None
750	2-606-TK-750	Pressure	42,000	1945	None
797	2-24-TK-797	Caustic	21,000	1966	None
814	2-106-TK-814	Organic Liquid	210,000	1976	None
836	2-606-TK-836	Pressure	420,000	1978	None

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

STORAGE VESSELS (Continued):

Tank No.	Refinery ID	Contents Description	Capacity (gal)	Date Commenced	Generally Applicable Regulation
840	2-606-TK-840	Pressure	420,000	1986	None
857	2-606-TK-857	Sulfur	300,300	1989	None
862	2-606-TK-862	Pressure	63,000	1978	None
863	2-606-TK-863	Pressure	63,000	1978	None
864	2-606-TK-864	Pressure	63,000	1989	None
865	2-606-TK-865	Pressure	63,000	1989	None
866	2-606-TK-866	Pressure	63,000	1989	None
867	2-106-TK-867	MDEA	210,000	1990	None
868	2-66-TK-868	Gasoline Refueling	2,016	1988	401 KAR 59:050 401 KAR 59:174 401 KAR 59:175
869	2-66-TK-869	Diesel Refueling	2,016	1988	401 KAR 59:050
877	2-24-TK-877	Caustic	40,320	1990	None
878	2-24-TK-878	Caustic	40,320	1990	None
879	2-24TK-879	Caustic	40,320	1990	None
896	2-121-TK-896	Lube Oil	1,008	1993	401 KAR 59:050
897	2-121-TK-897	Antifoulant	2,016	1993	None
898	2-606-TK-898	Pressure	24,864	1994	None
899	2-613-TK-899	Water	420,000	1995	None
903	2-606-TK-903	Diesel Dye	6,006	1996	None
464A	2-106-TK-464A	Out of Service	9,240	1977	None
464B	2-106-TK-464B	Out of Service	92,400	1977	None

NA	Category: Organic Liquid Totes and Skids	Temporary containers of purchased volatile organic liquids. Do not contain petroleum liquids. Not filled at CRLLC refinery: received full from vendor, then returned empty to vendor.	Less than 5,000 gallons each	Various	None

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

STORAGE VESSELS (Continued):

Tank No.	Refinery ID	Contents Description	Capacity (gal)	Date Commenced	Generally Applicable Regulation
NA	Category: Petroleum Liquid Totes and Skids	Temporary containers of purchased petroleum liquids. Not filled at CRLLC refinery: received full from vendor, then returned empty to vendor.	Less than 5,000 gallons each	Various	None – not a "storage vessel" as defined in 401 KAR 59:050 and 61:050
NA	Category: Totes and Skids < 580 gal	Temporary containers containing petroleum liquids or volatile organic liquids.	Less than 580 gallons each	Various	None
NA	Category: Diesel Refueling	Fixed roof diesel storage tanks used for vehicle refueling	≤ 580	Any	None
NA	Category: Diesel Refueling	Fixed roof diesel storage tanks used for vehicle refueling	580 < cap < 10,567 *(40 m3)*	Before April 9, 1972	401 KAR 61:050
NA	Category: Diesel Refueling	Fixed roof diesel storage tanks used for vehicle refueling	10,567 < cap ≤ 39,890 *(151 m3)*	Before April 9, 1972	401 KAR 61:050 – no requirements and 40 CFR 63.641(i) referencing 63.123(a) records of dimensions and capacity
NA	Category: Diesel Refueling	Fixed roof diesel storage tanks used for vehicle refueling	580 < cap < 10,567 *(40 m3)*	On or after April 9, 1972 and before July 24, 1984	401 KAR 59:050 – no requirements
NA	Category: Diesel Refueling	Fixed roof diesel storage tanks used for vehicle refueling	10,567 < cap ≤ 39,890 *(151 m3)*	On or after April 9, 1972 and before July 24, 1984	401 KAR 59:050 – no requirements and 40 CFR 63.641(i) referencing 63.123(a) records of dimensions and capacity
NA	Category: Diesel Refueling	Fixed roof diesel storage tanks used for vehicle refueling	580 < cap < 10,567 *(40 m3)*	On or after July 24, 1984	401 KAR 59:050 – no requirements
NA	Category: Diesel Refueling	Fixed roof diesel storage tanks used for vehicle refueling	10,567 < cap ≤ 39,890 *(151 m3)*	On or after July 24, 1984	40 CFR 60.116b(a), (b) records of dimensions and capacity - and – 40 CFR 63.640(n)(1) states vessel is required to comply only with 40 CFR 60 Subpart Kb
NA	Category: Gasoline Refueling	Fixed roof gasoline storage tanks used for vehicle refueling	≤ 580 gal cap each	Before June 6, 1979	401 KAR 61:085 no requirements - and - 401 KAR 59:174

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

STORAGE VESSELS (Continued):

Tank No.	Refinery ID	Contents Description	Capacity (gal)	Date Commenced	Generally Applicable Regulation
NA	Category: Gasoline Refueling	Fixed roof gasoline storage tanks used for vehicle refueling	≤ 580 gal cap each	On or after June 6, 1979 and before June 29, 1995	401 KAR 59:175 no requirements - and - 401 KAR 59:174
NA	Category: Gasoline Refueling	Fixed roof gasoline storage tanks used for vehicle refueling	580 < cap ea < 10,567 *(40 m3)*	On or after April 9, 1972 and before June 6, 1979	401 KAR 59:050 Section 3(2) permanent submerged fill pipe - and - 401 KAR 61:085 no requirements - and - 401 KAR 59:174
NA	Category: Gasoline Refueling	Fixed roof gasoline storage tanks used for vehicle refueling	10,567 < cap ea ≤ 39,890 *(151 m3)*	On or after April 9, 1972 and before June 6, 1979	401 KAR 59:050 Section 3(2) permanent submerged fill pipe - and - 401 KAR 61:085 no requirements - and - 40 CFR 63.641(i) referencing 63.123(a) records of dimensions and capacity - and - 401 KAR 59:174
NA	Category: Gasoline Refueling	Fixed roof gasoline storage tanks used for vehicle refueling	580 < cap ea < 10,567 *(40 m3)*	On or after June 6, 1979 and before July 24, 1984	401 KAR 59:050 Section 3(2) permanent submerged fill pipe - and - 401 KAR 59:175 no requirements - and - 401 KAR 59:174
NA	Category: Gasoline Refueling	Fixed roof gasoline storage tanks used for vehicle refueling	10,567 < cap ea ≤ 39,890 *(151 m3)*	On or after June 6, 1979 and before July 24, 1984	401 KAR 59:050 Section 3(2) permanent submerged fill pipe - and - 401 KAR 59:175 no requirements - and - 40 CFR 63.641(i) referencing 63.123(a) records of dimensions and capacity - and - 401 KAR 59:174
NA	Category: Gasoline Refueling	Fixed roof gasoline storage tanks used for vehicle refueling	580 < cap ea < 10,567 *(40 m3)*	On or after July 24, 1984 and before June 29, 1995	401 KAR 59:050 Section 3(2) permanent submerged fill pipe - and - 401 KAR 59:175 no requirements - and - 401 KAR 59:174

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

STORAGE VESSELS (Continued):

Tank No.	Refinery ID	Contents Description	Capacity (gal)	Date Commenced	Generally Applicable Regulation
NA	Category: Diesel Refueling	Fixed roof diesel storage tanks used for vehicle refueling	580 < cap < 10,567 *(40 m3)*	On or after April 9, 1972 and before July 24, 1984	401 KAR 59:050 – no requirements
NA	Category: Diesel Refueling	Fixed roof diesel storage tanks used for vehicle refueling	10,567 < cap ≤ 39,890 *(151 m3)*	On or after April 9, 1972 and before July 24, 1984	401 KAR 59:050 – no requirements and 40 CFR 63.641(i) referencing 63.123(a) records of dimensions and capacity
NA	Category: Diesel Refueling	Fixed roof diesel storage tanks used for vehicle refueling	580 < cap < 10,567 *(40 m3)*	On or after July 24, 1984	401 KAR 59:050 – no requirements
NA	Category: Diesel Refueling	Fixed roof diesel storage tanks used for vehicle refueling	10,567 < cap ≤ 39,890 *(151 m3)*	On or after July 24, 1984	40 CFR 60.116b(a), (b) records of dimensions and capacity - and – 40 CFR 63.640(n)(1) states vessel is required to comply only with 40 CFR 60 Subpart Kb
NA	Category: Gasoline Refueling	Fixed roof gasoline storage tanks used for vehicle refueling	≤ 580 gal cap each	Before June 6, 1979	401 KAR 61:085 no requirements - and - 401 KAR 59:174
NA	Category: Gasoline Refueling	Fixed roof gasoline storage tanks used for vehicle refueling	≤ 580 gal cap each	On or after June 6, 1979 and before June 29, 1995	401 KAR 59:175 no requirements - and - 401 KAR 59:174
NA	Category: Gasoline Refueling	Fixed roof gasoline storage tanks used for vehicle refueling	≤ 580 gal cap each	On or after June 29, 1995	401 KAR 59:174
NA	Category: Gasoline Refueling	Fixed roof gasoline storage tanks used for vehicle refueling	580 < cap ea < 10,567 *(40 m3)*	Before April 9, 1972	401 KAR 61:050 Section 3(3) permanent submerged fill pipe - and - 401 KAR 61:085 no requirements - and - 401 KAR 59:174
NA	Category: Gasoline Refueling	Fixed roof gasoline storage tanks used for vehicle refueling	10,567 < cap ea ≤ 39,890 *(151 m3)*	Before April 9, 1972	401 KAR 61:050 Section 3(3) permanent submerged fill pipe - and - 401 KAR 61:085 no requirements - and - 40 CFR 63.641(i) referencing 63.123(a) records of dimensions and capacity - and - 401 KAR 59:174

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

STORAGE VESSELS (Continued):

Tank No.	Refinery ID	Contents Description	Capacity (gal)	Date Commenced	Generally Applicable Regulation
NA	Category: Gasoline Refueling	Fixed roof gasoline storage tanks used for vehicle refueling	10,567 < cap ea ≤ 39,890 *(151 m3)*	On or after July 24, 1984 and before June 29, 1995	401 KAR 59:175 no requirements - and - 40 CFR 60.116b(a), (b) records of dimensions and capacity - and - 40 CFR 63.640(n)(1) states vessel is required to comply only with 40 CFR 60 Subpart Kb - and - 401 KAR 59:174
NA	Category: Gasoline Refueling	Fixed roof gasoline storage tanks used for vehicle refueling	580 < cap ea < 10,567 *(40 m3)*	On or after June 29, 1995	401 KAR 59:050 Section 3(2) permanent submerged fill pipe - and - 401 KAR 59:174
NA	Category: Gasoline Refueling	Fixed roof gasoline storage tanks used for vehicle refueling	10,567 < cap ea ≤ 39,890 *(151 m3)*	On or after June 29, 1995	40 CFR 60.116b(a) and (b) records of dimensions and capacity - and - 40 CFR 63.640(n)(1) states vessel is required to comply only with 40 CFR 60 Subpart Kb - and - 401 KAR 59:174
NA	Tank Cleaning Operation: Tanks not in benzene service				None
NA	Tank Cleaning Operation: Tanks in benzene service				None for cleaning operation- 40 CFR 61 Subpart FF applies to sludge removal from the tank.

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

Miscellaneous Activities:

Refinery ID	Description	Generally Applicable Regulation
--	Parts Washers and Degreasers (cold cleaning)	401 KAR 59:185
	Pitch PDU (Pilot Demonstration Unit)	None – R&D Facility
	PTC Cracking Pilot Unit	None – R&D Facility
	Lab #319 (Pilot Plant) – North Control Room	None – R&D Facility
	Lab #320 (Pilot Plant) – Hydrotreater, PDU, W.F.E, DCR	None – R&D Facility
	Other Research and Development Operations Minor Sources Separate from the Refinery Source	None – R&D Facility
	Laboratory Facilities	None
	Maintenance – Refractory dry-out	None
	Maintenance – Welding	None
	Maintenance – Wastewater sludge dry-out	None
	Maintenance – Painting	None
	Maintenance – Portable generators	None
	Maintenance – Other maintenance activities as described in U.S. EPA White Paper I	None
2-109-X-11	Spent Catalyst Truck Loading	401 KAR 59:010

Emergency Activities:

The following activities shall be considered as emergency activities and Insignificant Activities in the permit.

Description	Capacity	Date Commenced	Applicable Regulation
Emergency diesel engines for water pumps	660 HP each (nominal)	2006	40 CFR 63 Subpart ZZZZ Initial Notification only per 63.6590(b)(1)

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. Material incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. Emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. AMBIENT MONITORING: (Requirements from permit O-93-016)

   a. The permittee shall continue to perform the following ambient air monitoring for sulfur dioxide and nitrogen dioxide in accordance with requirements of the Division:
      (1) Three automated ambient SO_2 air quality monitors using certified equivalent methods as defined in 40 CFR 50.1 (g) and one meteorological monitor shall be operated continuously at sites identified as Station Numbers 115, 116, 117, and M-3 in the document entitled "Protocol for the Catlettsburg Refinery Sulfur Dioxide Air Quality Program." A monitor to measure ambient concentrations of nitrogen dioxide shall be calibrated, maintained, and operated continuously at Station Number 117 in accordance with the provisions of Regulation 401 KAR 53:010(2).
      (2) The operation, maintenance, quality assurance, and quality control procedures for the ambient air monitoring stations shall conform with standard practices followed by the Kentucky Division for Air Quality, or alternatives approved by the Director, Division for Air Quality.

   b. Ambient and emission monitoring data other than CEM data required by this permit shall be submitted to the Division within 60 days after the end of each calendar quarter in written form, and in electronic format in accordance with the procedures approved by the Division.

4. Pursuant to 40 CFR 63:021 (requirements from permit O-93-016 general condition 20), emissions of the following toxic air pollutants shall not exceed the limits listed below:

Cumene	57.1 lbs/hr	8 hour ave.
Xylene	97.2 lbs/hr	8 hour ave.
Toluene	58.9 lbs/hr	8 hour ave.
1,3 Butadiene	26.1 lbs/hr	8 hour ave.
Trimethylbenzene	156.4 lbs/hr	8 hour ave.
Naphthalene	69.4 lbs/hr	8 hour ave.
Methylene chloride	138.2 lbs/hr	8 hour ave.
Methyl ethyl ketone	720.8 lbs/hr	8 hour ave.
Nonane	306.6 lbs/hr	8 hour ave.
Methanol	37.3 lbs/hr	8 hour ave.
n-Hexane	235.4 lbs/hr	8 hour ave.
Furfural	1.8 lbs/hr	8 hour ave.
Chrysene	0.0059 lb/hr	BACT

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

4. (Continued)
Compliance with the foregoing emission limits may be demonstrated by computer modeling, calculations or performance tests as may be specified and requested by the Director for Permit Review Branch approval.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

40 CFR 63 Subpart A- Startup, Shutdown, and Malfunction Plan Requirements

[40 CFR 63.6(f)(1)]

'Compliance with non-opacity emission standards: *(1) Applicability- The non-opacity emission standards set for the in this part shall apply all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart. If a startup, shutdown, or malfunction of one portion of an affected source does not affect the ability of particular emission points within other portion of the affected source to comply with the non-opacity emission standards set forth in this part, then that emission point must still be required to comply with the non-opacity emission standards and other applicable requirements.'*

[40 CFR 63.6(e)(3)]

(3) Startup, shutdown, and malfunction plan.

(i) The owner or operator of an affected source must develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control and monitoring equipment used to comply with the relevant standard. This plan must be developed by the owner or operator by the source's compliance date for that relevant standard. The purpose of the startup, shutdown, and malfunction plan is to--

(A) Ensure that, at all times, the owner or operator operates and maintains each affected source, including associated air pollution control and monitoring equipment, in a manner which satisfies the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

(C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(ii) During periods of startup, shutdown, and malfunction, the owner or operator of an affected source must operate and maintain such source (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (e)(3)(i) of this section.

(iii) When actions taken by the owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator must keep records for that event which demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping that

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS (CONTINUED)

confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, the owner or operator must keep records of these events as specified in § 63.10(b), including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control and monitoring equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in § 63.10(d)(5).

(iv) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, then the owner or operator must record the actions taken for that event and must report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with § 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator).

(v) The owner or operator must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph (e)(3)(viii) of this section, the owner or operator must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Administrator for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of this part, the owner or operator must retain a copy of the most recent plan for 5 years from the date the source ceases operation or is no longer subject to this part and must make the plan available upon request for inspection and copying by the Administrator. The Administrator may at any time request in writing that the owner or operator submit a copy of any startup, shutdown, and malfunction plan (or a portion thereof) which is maintained at the affected source or in the possession of the owner or operator. Upon receipt of such a request, the owner or operator must promptly submit a copy of the requested plan (or a portion thereof) to the Administrator. The Administrator must request that the owner or operator submit a particular startup, shutdown, or malfunction plan (or a portion thereof) whenever a member of the public submits a specific and reasonable request to examine or to receive a copy of that plan or portion of a plan. The owner or operator may elect to submit the required copy of any startup, shutdown, and malfunction plan to the Administrator in an electronic format. If the owner or operator claims that any portion of such a startup, shutdown, and malfunction plan is confidential business information entitled to protection from disclosure under section 114(c) of the Act or 40 CFR 2.301, the material which is claimed as confidential must be clearly designated in the submission.

(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection or submitted when requested by the Administrator.

(vii) Based on the results of a determination made under paragraph (e)(1)(i) of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator must require appropriate revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS (CONTINUED)

(A) Does not address a startup, shutdown, or malfunction event that has occurred.

(B) Fails to provide for the operation of the source (including associated air pollution control and monitoring equipment) during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;

(C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control and monitoring equipment as quickly as practicable; or

(D) Includes an event that does not meet the definition of startup, shutdown, or malfunction listed in § 63.2.

(viii) The owner or operator may periodically revise the startup, shutdown, and malfunction plan for the affected source as necessary to satisfy the requirements of this part or to reflect changes in equipment or procedures at the affected source. Unless the permitting authority provides otherwise, the owner or operator may make such revisions to the startup, shutdown, and malfunction plan without prior approval by the Administrator or the permitting authority. However, each such revision to a startup, shutdown, and malfunction plan must be reported in the semiannual report required by § 63.10(d)(5). If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the owner or operator makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the source which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under this part, the revised plan shall not take effect until after the owner or operator has provided a written notice describing the revision to the permitting authority.

(ix) The title V permit for an affected source must require that the owner or operator adopt a startup, shutdown, and malfunction plan which conforms to the provisions of this part, and that the owner or operator operate and maintain the source in accordance with the procedures specified in the current startup, shutdown, and malfunction plan. However, any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by this part shall not be deemed to constitute permit revisions under part 70 or part 71 of this chapter. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan for an affected source shall be deemed to fall within the permit shield provision in section 504(f) of the Act.

[40 CFR 63.10(d)(5)]

(i) Periodic startup, shutdown, and malfunction reports. *If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with procedures specified in the source's startup, shutdown, and malfunction plan, the owner or operator shall state such information in a startup, shutdown, and malfunction report. Such a report shall identify any instance where any action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with affected source's startup, shutdown, and malfunction plan, but the source does not exceed any applicable emission limitation in the relevant emission standard. Such a report shall also include the number, duration and brief description for each type of*

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS (CONTINUED)

malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semiannually (or on a frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as procedures specified in the paragraph (e)(3) of this section.

(ii). Immediate startup, shutdown, and malfunction reports. *Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph (d)(5)(i) of this section, any time an action taken by an owner or operator during startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard, the owner or operator shall report the action taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph (d)(5)(ii) shall consist of a telephone call to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred. Notwithstanding the requirements of the previous sentence, after the date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph (d)(5)(ii) are specified in 63.9(i).*

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place as defined in this permit, and time of sampling or measurements;
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b(V)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.

8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Section 1b (V) 3, 4. of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
   a. Identification of the term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period.
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality
Ashland Regional Office
1550 Wolohan Drive, Suite 1
Ashland, KY 41102-8942

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.

11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

   a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].

   b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
      (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
      (2) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
      (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

      Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

   d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   e. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

f. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

g. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

h. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens. [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

i. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

j. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].

k. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

l. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Environmental and Public Protection or any other federal, state, or local agency.

m. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].

n. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].

o. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

SECTION G - GENERAL PROVISIONS (CONTINUED)

p. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:
(1) Applicable requirements that are included and specifically identified in the permit and
(2) Non-applicable requirements expressly identified in this permit.

q. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

2. Permit Expiration and Reapplication Requirements

a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].

b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

3. Permit Revisions

a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).

b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

SECTION G - GENERAL PROVISIONS (CONTINUED)

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, in accordance with the terms and conditions of this permit.

a. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

b. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the Division's Frankfort Central Office, notification of the following:
   (1) The date when construction commenced.
   (2) The date of start-up of the affected facilities listed in this permit.
   (3) The date when the maximum production rate specified in the permit application was achieved.

c. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.

d. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the Cabinet.

e. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration (test) on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. These performance tests must also be conducted in accordance with General Provisions G.4.h of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test.

SECTION G - GENERAL PROVISIONS (CONTINUED)

f. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

g. Pursuant to 401 KAR 50:045 Section 5 in order to demonstrate that a source is capable of complying with a standard at all times, a performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.

5. Acid Rain Program Requirements

a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

b. The permittee shall comply with all requirements and conditions of the Title V Acid Rain Permit and the Phase II permit application (including the Phase II NOx compliance plan and averaging plan, if applicable) issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source. **[Acid Rain permits only**]

6. Emergency Provisions

a. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
   (1) An emergency occurred and the permittee can identify the cause of the emergency;
   (2) The permitted facility was at the time being properly operated;
   (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
   (4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(5) This requirement does not relieve the source of other local, state or federal notification requirements.

b. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].

c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

7. Risk Management Provisions

a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 1515
Lanham-Seabrook, MD 20703-1515.

b. If requested, submit additional relevant information to the Division or the U.S. EPA.

8. Ozone Depleting Substances

a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
(1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
(2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
(3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
(4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
(5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
(6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

SECTION G - GENERAL PROVISIONS (CONTINUED)

b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None