

**Commonwealth of Kentucky
Energy and Environment Cabinet
Department for Environmental Protection
Division for Air Quality
300 Sower Boulevard, 2nd Floor
Frankfort, Kentucky 40601
(502) 564-3999**

Draft

**AIR QUALITY PERMIT
Issued under 401 KAR 52:030**

Permittee Name: Ensign-Bickford Aerospace & Defense Company
Mailing Address: P.O. Box 219,
Graham, KY 42344

Source Name: Ensign-Bickford Aerospace & Defense Company
Mailing Address: P.O. Box 219,
Graham, KY 42344

Source Location: 500 Bickford Rd.
Graham, KY 42344

Permit ID: F-24-047
Agency Interest #: 40689
Activity ID: APE20220001
Review Type: Conditional Major, Operating
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Regional Office: Owensboro Regional Office
3032 Alvey Park Dr. W., Suite 700
Owensboro, KY 42303
(270) 687-7304

County: Muhlenberg

**Application
Complete Date:** October 23, 2022
Issuance Date:
Expiration Date:

**For Michael J. Kennedy, P.E.
Director
Division for Air Quality**

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Permit	Permit Type	Activity#	Complete Date	Issuance Date	Summary of Action
F-24-047	Renewal	APE20220001	10/23/2022		Renewal Permit

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Energy and Environment Cabinet (Cabinet) hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit was issued under the provisions of Kentucky Revised Statutes (KRS) 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 52:030, Federally-enforceable permits for non-major sources.

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

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**EP 13MIEH - MRF Heat Exchanger****Description:**

Type: Cleveland Brooks LFME-12 (Serial # 0-14085)
Maximum Rating: 5 MMBtu/hr
Construction Date: 1994
Control Device: None
Fuel: Natural Gas

APPLICABLE REGULATIONS:

401 KAR 59:015, *New indirect heat exchangers*

STATE-ORIGIN REQUIREMENTS:

401 KAR 63:020, *Potentially hazardous matter or toxic substances.*

1. Operating Limitations:

During a startup period or shutdown period, the permittee shall comply with the work practice standards established in 401 KAR 59:015, Section 7. [401 KAR 59:015, Section 7]

- a. The permittee shall comply with 401 KAR 50:055, Section 2(5); [401 KAR 59:015, Section 7(1)(a)]
- b. The frequency and duration of startup periods or shutdown periods shall be minimized by the affected facility; [401 KAR 59:015, Section 7(1)(b)]
- c. All reasonable steps shall be taken by the permittee to minimize the impact of emissions on ambient air quality from the affected facility during startup periods and shutdown periods; [401 KAR 59:015, Section 7(1)(c)]
- d. The actions, including duration of the startup period, of the permittee during startup and shutdown periods, shall be documented in signed, contemporaneous logs or other relevant evidence; [401 KAR 59:015, Section 7(1)(d)]
- e. Startups and shutdowns shall be conducted according to either: [401 KAR 59:015, Section 7(1)(e)]
 - i. The manufacturer's recommended procedures; or [401 KAR 59:015, Section 7(1)(e)1.]
 - ii. Recommended procedures for a unit of similar design, for which manufacturer's recommended procedures are available, as approved by the cabinet based on documentation provided by the permittee. [401 KAR 59:015, Section 7(1)(e)2.]

Compliance Demonstration Method:

Compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements (b)**

2. Emission Limitations:

- a. The permittee shall not cause emissions of particulate matter in excess of 0.56 lb/MMBtu actual heat input. [401 KAR 59:015, Section 4(1)(a)]

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

- b. The permittee shall not cause emissions of particulate matter in excess of 20 percent opacity from each indirect heat exchanger except: [401 KAR 59:015, Section 4(2)]
 - i. A maximum of 40 percent opacity shall be permissible for not more than 6 consecutive minutes in any 60 consecutive minutes during cleaning the fire box or blowing soot; or [401 KAR 59:015, Section 4(2)(b)]
 - ii. For emissions from an indirect heat exchanger during building a new fire for the period required to bring the indirect heat exchanger 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, Section 4(2)(c)]
- c. The permittee shall not cause emissions of SO₂ in excess of 3.0 lb/MMBtu actual heat input. [401 KAR 59:015, Section 5(1)(a)(1.)]

Compliance Demonstration Method:

Compliance with the 401 KAR 59:015 emission standards is assumed. [401 KAR 50:045, Section 4(3)(c)1.]

- d. Persons responsible for a source from which hazardous matter or toxic substances may be emitted shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. No owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the cabinet. [401 KAR 63:020, Section 3]

Compliance Demonstration Method:

Based upon the emission rates of toxics and hazardous air pollutants determined by the Cabinet using information provided in the application and supplemental information submitted by the source, the Cabinet determines the affected facility to be in compliance with 401 KAR 63:020.

3. Testing Requirements:

Pursuant to 401 KAR 50:045, Section 1 and 401 KAR 59:005, Section 2, performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:

- a. The permittee shall monitor the natural gas combusted, in MMscf, on a monthly basis. [401 KAR 52:030, Section 10]
- b. Refer to **Section F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain records of the amount of natural gas combusted, in MMscf, on a monthly basis. [401 KAR 52:030, Section 10]

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

- b. The permittee shall keep records of the manufacturer's recommended procedures for startup and shutdown, any instance in which the recommended procedures were not followed, and any corrective action taken. [401 KAR 52:030, Section 10]
- c. Refer to **Section F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

Refer to **Section F** for general reporting requirements.

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

Emission Unit 10 (EU 10): Multiple Reaction Facility (MRF)

EP 10-17 MRF MAPO Production

Construction Date: October 1991

Components:

1000 gallon Stainless Steel Reactor (RX915)

Manufacturer: Pfaudler

Model: E380-1410

High Volume / Low Vacuum Nash Vacuum Pump (VP001)

Manufacturer: Nash

Model: CH 9626 EB

Low Volume / High Vacuum Busch Vacuum Pump (VP518)

Manufacturer: Busch

Model: Huckepack H00437, FIH6, 1111 Vacuum Pump

MAPO Shell & Tube Heat Exchanger (HX536)

600-Gallon Stainless Steel Vacuum Receiver (VR6000)

MAPO Condenser (HX3011)

Control Device # 1: MAPO Shell & Tube Heat Exchanger (HX536)

Manufacturer: ITT Standard

Model: 04024 SSCF

Install date: 1998

Control Device # 2: MAPO Condenser (HX3011)

Manufacturer: ITT Standard

Model: 08066 SSCF-C

Install Date: 2008

Overall Control Efficiency: 80%

EP 10-25 GAP-1 and GAP-2 (Glycidyl Azide Polymer)

Construction Date: October 1991

Components:

1000 gallon Stainless Steel Reactor (RX915)

Manufacturer: Pfaudler

Model: E380-1410

Low Volume / High Vacuum Busch Vacuum Pump (VP518)

Manufacturer: Busch

Model: Huckepack H00437, FIH6 1111 Vacuum Pump

ITT Standard Shell & Tube Heat Exchanger (HX536)

600-gallon Stainless Steel Vacuum Receiver (VR6000)

Control device: GAP Shell & Tube Heat Exchanger (HX536)

Manufacturer: ITT Standard

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

Model: 04024 SSCF
Install date: 1998
Efficiency: 89.1%

Tanks:**EU 08 Methylene Chloride:****EP 8MTF6 (TK601) MRF 99% MeCl Raw Material Storage Tank**

Construction Date: October 1996
Capacity: 1,400 gallons
Control Device: None

EP 8MTF7 (TK600) MRF 99% MeCl Recovery Tank

Construction Date: October 1991
Capacity: 1,400 gallons
Control Device: None

EU 09 GAP:**EP 09MTF12 (TK503) MRF Isobutyl Isobutyrate/Xylene Recovery Tank**

Construction Date: October 1991
Capacity: 5,000 gallons
Control Device: None

APPLICABLE REGULATIONS:

401 KAR 60:005, Section 2(2)(bbb), 40 C.F.R. 60.480 through 60.489 (Subpart VV), *Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After January 5, 1981, and on or Before November 7, 2006*

STATE-ORIGIN REQUIREMENTS:

401 KAR 63:020, *Potentially hazardous matter or toxic substances.*

PRECLUDED REGULATIONS:

401 KAR 51:017, *Prevention of significant deterioration of air quality*

1. Operating Limitations:

- a. The condenser and shell & tube heat exchanger associated with EP 10-17 must be in operation as specified in **7. Specific Control Equipment Operating Conditions.** [To preclude 401 KAR 51:017]
- b. The shell & tube heat exchanger associated with EP 10-25 must be in operation as specified in **7. Specific Control Equipment Operating Conditions.** [To preclude 401 KAR 51:017]
- c. Material usage shall be restricted such that the limits specified in **Section D** are not exceeded.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Standards: General. [40 CFR 60.482-1]**

- d. The permittee shall demonstrate compliance with the requirements of 40 CFR 60.482-1 through 60.482-10 or 40 CFR 60.480(e) for all equipment within 180 days of initial startup. [40 CFR 60.482-1(a)]
- e. Compliance with 40 CFR 60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 CFR 60.485. [40 CFR 60.482-1(b)]
- f. The permittee may request a determination of equivalence of a means of emission limitation to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, and 60.482-10 as provided in 40 CFR 60.484. [40 CFR 60.482-1(c)(1)]
- g. If the Administrator makes a determination that a means of emission limitation is at least equivalent to the requirements of 40 CFR 60.482-2, 60.482-3, 60.482-5, 60.482-6, 60.482-7, 60.482-8, or 60.482-10, the permittee shall comply with the requirements of that determination. [40 CFR 60.482-1(c)(2)]
- h. 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)(5). [40 CFR 60.482-1(d)]
- i. Equipment that the permittee designates as being in VOC service less than 300 hours (hr)/yr is excluded from the requirements of 40 CFR 60.482-2 through 60.482-10 if it is identified as required in 40 CFR 60.486(e)(6) and it meets any of the conditions specified in 40 CFR 60.482-1(e)(1) through (3). [40 CFR 60.482-1(e)]
 - i. The equipment is in VOC service only during startup and shutdown, excluding startup and shutdown between batches of the same campaign for a batch process. [40 CFR 60.482-1(e)(1)]
 - ii. The equipment is in VOC service only during process malfunctions or other emergencies. [40 CFR 60.482-1(e)(2)]
 - iii. The equipment is backup equipment that is in VOC service only when the primary equipment is out of service. [40 CFR 60.482-1(e)(3)]

Standards: Compressors. [40 CFR 60.482-3]

- j. 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 CFR 60.482-1(c) and 40 CFR 60.482-3(h), (i), and (j). [40 CFR 60.482-3(a)]
- k. Each compressor seal system as required in 40 CFR 60.482-3(a) shall be: [40 CFR 60.482-3(b)]
 - i. Operated with the barrier fluid at a pressure that is greater than the compressor stuffing box pressure; or [40 CFR 60.482-3(b)(1)]
 - ii. Equipped with a barrier fluid system 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 60.482-10; or [40 CFR 60.482-3(b)(2)]

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

- iii. Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere. [40 CFR 60.482-3(b)(3)]
- l. The barrier fluid system shall be in heavy liquid service or shall not be in VOC service. [40 CFR 60.482-3(c)]
- m. A compressor is exempt from the requirements of 40 CFR 60.482-3(a) and (b), if it is equipped with a closed vent system to capture and transport leakage from the compressor drive shaft back to a process or fuel gas system or to a control device that complies with the requirements of 40 CFR 60.482-10, except as provided in 40 CFR 60.482-3(i). [40 CFR 60.482-3(h)]
- n. Any existing reciprocating compressor in a process unit which becomes an affected facility under provisions of 40 CFR 60.14 or 60.15 is exempt from 40 CFR 60.482-3(a) through (e) and (h), provided the permittee demonstrates that recasting the distance piece or replacing the compressor are the only options available to bring the compressor into compliance with the provisions of 40 CFR 60.482-3(a) through (e) and (h). [40 CFR 60.482-3(j)]

Standards: Pressure relief devices in gas/vapor service. [40 CFR 60.482-4]

- o. 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 through the pressure relief device to a control device as described in 40 CFR 60.482-10 is exempted from the requirements of 40 CFR 60.482-4(a) and (b). [40 CFR 60.482-4(c)]
- p. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of 40 CFR 60.482-4(a) and (b), provided the permittee complies with the requirements in 40 CFR 60.482-4(d)(2). [40 CFR 60.482-4(d)(1)]
- q. After each pressure release, a new 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 60.482-9. [40 CFR 60.482-4(d)(2)]

Standards: Sampling connection systems. [40 CFR 60.482-5]

- r. Each sampling connection system shall be equipped with a closed-purge, closed-loop, or closed-vent system, except as provided in 40 CFR 60.482-1(c) and 41 CFR 60.482-5(c). [40 CFR 60.482-5(a)]
- s. Each closed-purge, closed-loop, or closed-vent system as required in 40 CFR 60.482-5(a) shall comply with the requirements specified in 40 CFR 60.482-5(b)(1) through (4). [40 CFR 60.482-5(b)]
 - i. Gases displaced during filling of the sample container are not required to be collected or captured. [40 CFR 60.482-5(b)(1)]
 - ii. Containers that are part of a closed-purge system must be covered or closed when not being filled or emptied. [40 CFR 60.482-5(b)(2)]

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

- iii. Gases remaining in the tubing or piping between the closed-purge system valve(s) and sample container valve(s) after the valves are closed and the sample container is disconnected are not required to be collected or captured. [40 CFR 60.482-5(b)(3)]
- iv. Each closed-purge, closed-loop, or closed-vent system shall be designed and operated to meet requirements in either 40 CFR 60.482-5(b)(4)(i), (ii), (iii), or (iv). [40 CFR 60.482-5(b)(4)]
 - 1. Return the purged process fluid directly to the process line. [40 CFR 60.482-5(b)(4)(i)]
 - 2. Collect and recycle the purged process fluid to a process. [40 CFR 60.482-5(b)(4)(ii)]
 - 3. Capture and transport all the purged process fluid to a control device that complies with the requirements of 40 CFR 60.482-10. [40 CFR 60.482-5(b)(4)(iii)]
 - 4. Collect, store, and transport the purged process fluid to any of the following systems or facilities: [40 CFR 60.482-5(b)(4)(iv)]
 - 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 part 63, subpart G, applicable to Group 1 wastewater streams; [40 CFR 60.482-5(b)(4)(iv)(A)]
 - B. A treatment, storage, or disposal facility subject to regulation under 40 CFR part 262, 264, 265, or 266; [40 CFR 60.482-5(b)(4)(iv)(B)]
 - 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; [40 CFR 60.482-5(b)(4)(iv)(C)]
 - D. A waste management unit subject to and operated in compliance with the treatment requirements of 40 CFR 61.348(a), provided all waste management units that collect, store, or transport the purged process fluid to the treatment unit are subject to and operated in compliance with the management requirements of 40 CFR 61.343 through 61.347; or [40 CFR 60.482-5(b)(4)(iv)(D)]
 - E. A device used to burn off-specification used oil for energy recovery in accordance with 40 CFR part 279, subpart G, provided the purged process fluid is not hazardous waste as defined in 40 CFR part 261. [40 CFR 60.482-5(b)(4)(iv)(E)]
- t. In situ sampling systems and sampling systems without purges are exempt from the requirements of 40 CFR 60.482-5(a) and (b). [40 CFR 60.482-5(c)]

Standards: Open-ended valves or lines. [40 CFR 60.482-6]

- u. Each open-ended valve or line shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in 40 CFR 60.482-1(c) and 40 CFR 60.482-6(d) and (e). [40 CFR 60.482-6(a)(1)]
- v. 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. [40 CFR 60.482-6(a)(2)]

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

- w. 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. [40 CFR 60.482-6(b)]
- x. 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 40 CFR 60.482-6(a). [40 CFR 60.482-6(c)]
- y. 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 40 CFR 60.482-6(a), (b) and (c). [40 CFR 60.482-6(d)]
- z. Open-ended valves or lines containing materials which would autocatalytically polymerize or would present an explosion, serious overpressure, or other safety hazard if capped or equipped with a double block and bleed system as specified in 40 CFR 60.482-6(a) through (c) are exempt from the requirements of 40 CFR 60.482-6(a) through (c). [40 CFR 60.482-6(e)]

Standards: Closed vent systems and control devices. [40 CFR 60.482-10]

- aa. The permittee of closed vent systems and control devices used to comply with provisions of 40 CFR 60, Subpart VV shall comply with the provisions of 40 CFR 60.482-10. [40 CFR 60.482-10(a)]

Alternative standards for valves—allowable percentage of valves leaking. [40 CFR 60.483-1]

- bb. The permittee may elect to comply with an allowable percentage of valves leaking of equal to or less than 2.0 percent. [40 CFR 60.483-1(a)]
- cc. The following requirements shall be met if the permittee wishes to comply with an allowable percentage of valves leaking: [40 CFR 60.483-1(b)]
 - i. The permittee must notify the Administrator that the permittee has elected to comply with the allowable percentage of valves leaking before implementing this alternative standard, as specified in 40 CFR 60.487(d). [40 CFR 60.483-1(b)(1)]
 - ii. A performance test as specified in 40 CFR 60.483-1(c) shall be conducted initially upon designation, annually, and at other times requested by the Administrator. [40 CFR 60.483-1(b)(2)]
 - iii. If a valve leak is detected, it shall be repaired in accordance with 40 CFR 60.482-7(d) and (e). [40 CFR 60.483-1(b)(3)]
- dd. Performance tests shall be conducted in the following manner: [40 CFR 60.483-1(c)]
 - 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). [40 CFR 60.483-1(c)(1)]
 - ii. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. [40 CFR 60.483-1(c)(2)]

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

- 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. [40 CFR 60.483-1(c)(3)]
 - ee. If the permittee elects to comply with this alternative standard, the permittee shall not have an affected facility with a leak percentage greater than 2.0 percent, determined as described in 40 CFR 60.485(h). [40 CFR 60.483-1(d)]
- Alternative standards for valves—skip period leak detection and repair. [40 CFR 60.483-2]**
- ff. The permittee may elect to comply with one of the alternative work practices specified in 40 CFR 60.483-2(b)(2) and (3). [40 CFR 60.483-2(a)(1)]
 - gg. The permittee must notify the Administrator before implementing one of the alternative work practices, as specified in 40 CFR 60.487(d). [40 CFR 60.483-2(a)(2)]
 - hh. The permittee 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. [40 CFR 60.483-2(b)(1)]
 - ii. After 2 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, the permittee may begin to skip 1 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service. [40 CFR 60.483-2(b)(2)]
 - jj. After 5 consecutive quarterly leak detection periods with the percent of valves leaking equal to or less than 2.0, the permittee may begin to skip 3 of the quarterly leak detection periods for the valves in gas/vapor and light liquid service. [40 CFR 60.483-2(b)(3)]
 - kk. If the percent of valves leaking is greater than 2.0, the permittee shall comply with the requirements as described in 40 CFR 60.482-7 but can again elect to use 40 CFR 60.483-2. [40 CFR 60.483-2(b)(4)]
 - ll. The percent of valves leaking shall be determined as described in 40 CFR 60.485(h). [40 CFR 60.483-2(b)(5)]
 - mm. The permittee must keep a record of the percent of valves found leaking during each leak detection period. [40 CFR 60.483-2(b)(6)]
 - nn. A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for a process unit following one of the alternative standards in 40 CFR 60.483-2 must be monitored in accordance with 40 CFR 60.482-7(a)(2)(i) or (ii) before the provisions of 40 CFR 60.483-2 can be applied to that valve. [40 CFR 60.483-2(b)(7)]

2. Emission Limitations:

- a. The permittee may apply to the Administrator for determination of equivalence for any means of emission limitation that achieves a reduction in emissions of VOC at least equivalent to the reduction in emissions of VOC achieved by the controls required in 40 CFR 60, Subpart VV. [40 CFR 60.484(a)]

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

- b. Persons responsible for a source from which hazardous matter or toxic substances may be emitted shall provide the utmost care and consideration, in the handling of these materials, to the potentially harmful effects of the emissions resulting from such activities. No owner or operator shall allow any affected facility to emit potentially hazardous matter or toxic substances in such quantities or duration as to be harmful to the health and welfare of humans, animals and plants. Evaluation of such facilities as to adequacy of controls and/or procedures and emission potential will be made on an individual basis by the cabinet. [401 KAR 63:020, Section 3]

Compliance Demonstration Method:

The Cabinet determines that source is in compliance with 401 KAR 63:020 based on the rate of emissions of airborne toxics determined by the cabinet using information provided in the application and supplemental information submitted by the source.

- c. Refer to **Section D**.

3. Testing Requirements:

- a. In conducting the performance tests required in 40 CFR 60.8, the permittee shall use as reference methods and procedures the test methods in appendix A of 40 CFR 60 or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b). [40 CFR 60.485(a)]
- b. The permittee shall determine compliance with the standards in 40 CFR 60.482-1 through 60.482-10, 60.483, and 60.484 as follows: [40 CFR 60.485(b)]
 - i. Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use by the procedures specified in Method 21. The following calibration gases shall be used: [40 CFR 60.485(b)(1)]
 1. Zero air (less than 10 ppm of hydrocarbon in air); and [40 CFR 60.485(b)(1)(i)]
 2. A mixture of methane or n-hexane and air at a concentration of about, but less than, 10,000 ppm methane or n-hexane. [40 CFR 60.485(b)(1)(ii)]
- c. The permittee shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows: [40 CFR 60.485(c)]
 - i. The requirements of 40 CFR 60.485(b). [40 CFR 60.485(c)(1)]
 - ii. Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance. [40 CFR 60.485(c)(2)]
- d. The permittee shall test each piece of equipment unless the permittee demonstrates that a process unit is not in VOC service, i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the following methods and procedures shall be used: [40 CFR 60.485(d)]
 - i. Procedures that conform to the general methods in ASTM E260-73, 91, or 96, E168-67, 77, or 92, E169-63, 77, or 93 (incorporated by reference—see 40 CFR 60.17)

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

- shall be used to determine the percent VOC content in the process fluid that is contained in or contacts a piece of equipment. [40 CFR 60.485(d)(1)]
- ii. Organic compounds that are considered by the Administrator to have negligible photochemical reactivity may be excluded from the total quantity of organic compounds in determining the VOC content of the process fluid. [40 CFR 60.485(d)(2)]
 - iii. Engineering judgment may be used to estimate the VOC content, if a piece of equipment had not been shown previously to be in service. If the Administrator disagrees with the judgment, 40 CFR 60.485(d)(1) and (2) shall be used to resolve the disagreement. [40 CFR 60.485(d)(3)]
- e. The permittee shall demonstrate that a piece of equipment is in light liquid service by showing that all the following conditions apply: [40 CFR 60.485(e)]
 - i. The vapor pressure of one or more of the organic components is greater than 0.3 kPa at 20 °C (1.2 in. H₂O at 68 °F). Standard reference texts or ASTM D2879-83, 96, or 97 (incorporated by reference—see 40 CFR 60.17) shall be used to determine the vapor pressures. [40 CFR 60.485(e)(1)]
 - ii. The total concentration of the pure organic components having a vapor pressure greater than 0.3 kPa at 20 °C (1.2 in. H₂O at 68 °F) is equal to or greater than 20 percent by weight. [40 CFR 60.485(e)(2)]
 - iii. The fluid is a liquid at operating conditions. [40 CFR 60.485(e)(3)]
 - f. Samples used in conjunction with 40 CFR 60.485(d), (e), and (g) shall be representative of the process fluid that is contained in or contacts the equipment. [40 CFR 60.485(f)]
 - g. The permittee shall determine compliance with 40 CFR 60.483-1 or 40 CFR 60.483-2 as follows: [40 CFR 60.485(h)]
 - i. The percent of valves leaking shall be determined using the following equation: [40 CFR 60.485(h)(1)]

$$\%V_L = \frac{V_L}{V_T} \times 100$$

Where:

$\%V_L$ = Percent leaking valves

V_L = Number of valves found leaking

V_T = The sum of the total number of valves monitored

- ii. The total number of valves monitored shall include difficult-to-monitor and unsafe-to-monitor valves only during the monitoring period in which those valves are monitored. [40 CFR 60.485(h)(2)]
- iii. The number of valves leaking shall include valves for which repair has been delayed. [40 CFR 60.485(h)(3)]
- iv. Any new valve that is not monitored within 30 days of being placed in service shall be included in the number of valves leaking and the total number of valves monitored for the monitoring period in which the valve is placed in service. [40 CFR 60.485(h)(4)]
- v. If the process unit has been subdivided in accordance with 40 CFR 60.482-7(c)(1)(ii), the sum of valves found leaking during a monitoring period includes all subgroups. [40 CFR 60.485(h)(5)]

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

- vi. The total number of valves monitored does not include a valve monitored to verify repair. [40 CFR 60.485(h)(6)]
- h. A mass balance analysis shall be used to evaluate overall control efficiency (efficiency of condensing methylene chloride in EP 10-17) for a given set of operating conditions within critical operational limitations (see table below). Shell & Tube Heat Exchanger/Condenser must demonstrate removal efficiencies of at least 80% for methylene chloride.
- i. Within 90 days of the issuance of this permit F-24-047, the permittee shall perform a mass balance for methylene chloride on the MAPO Shell & Tube Heat Exchanger (HX536) and MAPO Condenser (HX3011) associated with EP 10-17. The permittee shall use the results to comply with source wide emission limits to preclude applicability of 401 KAR 52:020. The permittee shall submit the mass balance results to the Division for Air Quality Regional office listed on the front page of this permit F-24-047.
- j. A mass balance analysis shall be used to evaluate condenser efficiency (efficiency of condensing isobutyl isobutyrate/xylene in EP 10-25) for a given set of operating conditions within critical operational limitations (see table below). Condenser must demonstrate removal efficiencies of at least 89.1% for isobutyl isobutyrate/xylene.
- k. Within 90 days of the issuance of this permit F-17-046, the permittee shall perform mass balance for isobutyl isobutyrate/xylene on the GAP Shell & Tube Heat Exchanger associated with EP 10-25. The permittee shall use the results to comply with source wide emission limits to preclude applicability of 401 KAR 52:020. The permittee shall submit the mass balance results to the Division for Air Quality Regional office listed on the front page of this permit F-24-047.
- l. Refer to **Section G**.

4. Specific Monitoring Requirements:

Standards: General. [40 CFR 60.482-1]

- a. If a dedicated batch process unit operates less than 365 days during a year, the permittee may monitor to detect leaks from pumps and valves at the frequency specified in the following table instead of monitoring as specified in 40 CFR 60.482-2, 60.482-7, and 60.483-2: [40 CFR 60.482-1(f)(1)]

Operating time (percent of hours during year)	Equivalent monitoring frequency time in use		
	Monthly	Quarterly	Semiannually
0 to <25	Quarterly	Annually	Annually
25 to <50	Quarterly	Semiannually	Annually
50 to <75	Bimonthly	Three quarters	Semiannually
75 to 100	Monthly	Quarterly	Semiannually

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

- b. Pumps and valves that are shared among two or more batch process units that are subject to 40 CFR 60, Subpart VV may be monitored at the frequencies specified in 40 CFR 60.482-1(f)(1), provided the operating time of all such process units is considered. [40 CFR 60.482-1(f)(2)]
- c. The monitoring frequencies specified in 40 CFR 60.482-1(f)(1) are not requirements for monitoring at specific intervals and can be adjusted to accommodate process operations. The permittee may monitor at any time during the specified monitoring period (e.g., month, quarter, year), provided the monitoring is conducted at a reasonable interval after completion of the last monitoring campaign. Reasonable intervals are defined in 40 CFR 60.482-1(f)(3)(i) through (iv). [40 CFR 60.482-1(f)(3)]
 - i. When monitoring is conducted quarterly, monitoring events must be separated by at least 30 calendar days. [40 CFR 60.482-1(f)(3)(i)]
 - ii. When monitoring is conducted semiannually (i.e., once every 2 quarters), monitoring events must be separated by at least 60 calendar days. [40 CFR 60.482-1(f)(3)(ii)]
 - iii. When monitoring is conducted in 3 quarters per year, monitoring events must be separated by at least 90 calendar days. [40 CFR 60.482-1(f)(3)(iii)]
 - iv. When monitoring is conducted annually, monitoring events must be separated by at least 120 calendar days. [40 CFR 60.482-1(f)(3)(iv)]

Standards: Pumps in light liquid service. [40 CFR 60.482-2]

- d. Each pump in light liquid service shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b), except as provided in 40 CFR 60.482-1(c) and (f) and 40 CFR 60.482-2(d), (e), and (f). A pump that begins operation in light liquid service after the initial startup date for the process unit must be monitored for the first time within 30 days after the end of its startup period, except for a pump that replaces a leaking pump and except as provided in 40 CFR 60.482-1(c) and (f) and 40 CFR 60.482-2 (d), (e), and (f). [40 CFR 60.482-2(a)(1)]
- e. Each pump in light liquid service shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal, except as provided in 40 CFR 60.482-1(f). [40 CFR 60.482-2(a)(2)]
- f. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. [40 CFR 60.482-2(b)(1)]
- g. If there are indications of liquids dripping from the pump seal, the permittee shall follow the procedure specified in either 40 CFR 60.482-2(b)(2)(i) or (ii). This requirement does not apply to a pump that was monitored after a previous weekly inspection if the instrument reading for that monitoring event was less than 10,000 ppm and the pump was not repaired since that monitoring event. [40 CFR 60.482-2(b)(2)]
 - i. Monitor the pump within 5 days as specified in 40 CFR 60.485(b). If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. The leak shall be repaired using the procedures in 40 CFR 60.482-2(c). [40 CFR 60.482-2(b)(2)(i)]
 - ii. Designate the visual indications of liquids dripping as a leak, and repair the leak within 15 days of detection by eliminating the visual indications of liquids dripping. [40 CFR 60.482-2(b)(2)(ii)]

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

- h. When a leak is detected, 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. [40 CFR 60.482-2(c)(1)]
- i. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the practices described in
 - i. Tightening the packing gland nuts; [40 CFR 60.482-2(c)(2)(i)]
 - ii. Ensuring that the seal flush is operating at design pressure and temperature. [40 CFR 60.482-2(c)(2)(ii)]
- j. Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 40 CFR 60.482-2(a), provided the requirements specified in 40 CFR 60.482-2(d)(1) through (6) are met. [40 CFR 60.482-2(d)]
 - i. Each dual mechanical seal system is— [40 CFR 60.482-2(d)(1)]
 - 1. Operated with the barrier fluid at a pressure that is at all times greater than the pump stuffing box pressure; or [40 CFR 60.482-2(d)(1)(i)]
 - 2. 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 60.482-10; or [40 CFR 60.482-2(d)(1)(ii)]
 - 3. Equipped with a system that purges the barrier fluid into a process stream with zero VOC emissions to the atmosphere. [40 CFR 60.482-2(d)(1)(iii)]
 - ii. The barrier fluid system is in heavy liquid service or is not in VOC service. [40 CFR 60.482-2(d)(2)]
 - iii. Each barrier fluid system is equipped with a sensor that will detect failure of the seal system, the barrier fluid system, or both. [40 CFR 60.482-2(d)(3)]
 - iv. Each pump is checked by visual inspection, each calendar week, for indications of liquids dripping from the pump seals. [40 CFR 60.482-2(d)(4)(i)]
 - v. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, the permittee shall follow the procedure specified in either 40 CFR 60.482-2(d)(4)(ii)(A) or (B). [40 CFR 60.482-2(d)(4)(ii)]
 - 1. Monitor the pump within 5 days as specified in 40 CFR 60.485(b) to determine if there is a leak of VOC in the barrier fluid. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. [40 CFR 60.482-2(d)(4)(ii)(A)]
 - 2. Designate the visual indications of liquids dripping as a leak. [40 CFR 60.482-2(d)(4)(ii)(B)]
 - vi. Each sensor as described in 40 CFR 60.482-2(d)(3) is checked daily or is equipped with an audible alarm. [40 CFR 60.482-2(d)(5)(i)]
 - vii. The permittee determines, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. [40 CFR 60.482-2(d)(5)(ii)]
 - viii. If the sensor indicates failure of the seal system, the barrier fluid system, or both, based on the criterion established in 40 CFR 60.482-2(d)(5)(ii), a leak is detected. [40 CFR 60.482-2(d)(5)(iii)]
 - ix. When a leak is detected pursuant to 40 CFR 60.482-2(d)(4)(ii)(A), it shall be repaired as specified in 40 CFR 60.482-2(c). [40 CFR 60.482-2(d)(6)(i)]

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

- x. A leak detected pursuant to 40 CFR 60.482-2(d)(5)(iii) shall be repaired within 15 days of detection by eliminating the conditions that activated the sensor. [40 CFR 60.482-2(d)(6)(ii)]
- xi. A designated leak pursuant to 40 CFR 60.482-2(d)(4)(ii)(B) shall be repaired within 15 days of detection by eliminating visual indications of liquids dripping. [40 CFR 60.482-2(d)(6)(iii)]

- k. Any pump that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-2(a), (c), and (d) if the pump: [40 CFR 60.482-2(e)]
 - i. Has no externally actuated shaft penetrating the pump housing, [40 CFR 60.482-2(e)(1)]
 - ii. Is demonstrated to be operating with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background as measured by the methods specified in 40 CFR 60.485(c), and [40 CFR 60.482-2(e)(2)]
 - iii. Is tested for compliance with 40 CFR 60.482-2(e)(2) initially upon designation, annually, and at other times requested by the Administrator. [40 CFR 60.482-2(e)(3)]

- l. If any pump is equipped with a closed vent system capable of capturing and transporting any leakage from the seal or seals to a process or to a fuel gas system or to a control device that complies with the requirements of 40 CFR 60.482-10, it is exempt from 40 CFR 60.482-2(a) through (e). [40 CFR 60.482-2(f)]

- m. Any pump that is designated, as described in 40 CFR 60.486(f)(1), as an unsafe-to-monitor pump is exempt from the monitoring and inspection requirements of 40 CFR 60.482-2(a) and (d)(4) through (6) if: [40 CFR 60.482-2(g)]
 - i. The permittee of the pump demonstrates that the pump is unsafe-to-monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-2(a); and [40 CFR 60.482-2(g)(1)]
 - ii. The permittee of the pump has a written plan that requires monitoring of the pump as frequently as practicable during safe-to-monitor times but not more frequently than the periodic monitoring schedule otherwise applicable, and repair of the equipment according to the procedures in 40 CFR 60.482-2(c) if a leak is detected. [40 CFR 60.482-2(g)(2)]

- n. Any pump that is located within the boundary of an unmanned plant site is exempt from the weekly visual inspection requirement of 40 CFR 60.482-2(a)(2) and (d)(4), and the daily requirements of 40 CFR 60.482-2(d)(5), provided that each pump is visually inspected as often as practicable and at least monthly. [40 CFR 60.482-2(h)]

Standards: Compressors. [40 CFR 60.482-3]

- o. Each barrier fluid system as described in 40 CFR 60.482-3(a) shall be equipped with a sensor that will detect failure of the seal system, barrier fluid system, or both. [40 CFR 60.482-3(d)]

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

- p. Each sensor as required in 40 CFR 60.482-3(d) shall be checked daily or shall be equipped with an audible alarm. [40 CFR 60.482-3(e)(1)]
- q. The permittee shall determine, based on design considerations and operating experience, a criterion that indicates failure of the seal system, the barrier fluid system, or both. [40 CFR 60.482-3(e)(2)]
- r. If the sensor indicates failure of the seal system, the barrier system, or both based on the criterion determined under 40 CFR 60.482-3(e)(2), a leak is detected. [40 CFR 60.482-3(f)]
- s. When a leak is detected, 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. [40 CFR 60.482-3(g)(1)]
- t. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-3(g)(2)]
- u. Any compressor that is designated, as described in 40 CFR 60.486(e)(1) and (2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-3(a)-(h) if the compressor:
 - i. Is demonstrated to be operating with no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, as measured by the methods specified in 40 CFR 60.485(c); and [40 CFR 60.482-3(i)(1)]
 - ii. Is tested for compliance with 40 CFR 60.482-3(i)(1) initially upon designation, annually, and at other times requested by the Administrator. [40 CFR 60.482-3(i)(2)]

Standards: Pressure relief devices in gas/vapor service. [40 CFR 60.482-4]

- v. Except during pressure releases, each pressure relief device in gas/vapor service 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). [40 CFR 60.482-4(a)]
- w. 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. [40 CFR 60.482-4(b)(1)]
- x. 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). [40 CFR 60.482-4(b)(2)]

Standards: Valves in gas/vapor service and in light liquid service. [40 CFR 60.482-7]

- y. Each valve shall be monitored monthly to detect leaks by the methods specified in 40 CFR 60.485(b) and shall comply with 40 CFR 60.482-7(b) through (e), except as

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

provided in 40 CFR 60.782-7(f), (g), and (h), 60.482-1(c) and (f), and 60.483-1 and 60.483-2. [40 CFR 60.482-7(a)(1)]

- z. A valve that begins operation in gas/vapor service or light liquid service after the initial startup date for the process unit must be monitored according to 40 CFR 60.482-7(a)(2)(i) or (ii), except for a valve that replaces a leaking valve and except as provided in 41 CFR 60.482-7(f), (g), and (h), 60.482-1(c), and 60.483-1 and 60.483-2. [40 CFR 60.482-7(a)(2)]
 - i. Monitor the valve as in 40 CFR 60.482-7(a)(1). The valve must be monitored for the first time within 30 days after the end of its startup period to ensure proper installation. [40 CFR 60.482-7(a)(2)(i)]
 - ii. If the valves on the process unit are monitored in accordance with 40 CFR 60.483-1 or 60.483-2, count the new valve as leaking when calculating the percentage of valves leaking as described in 40 CFR 60.483-2(b)(5). If less than 2.0 percent of the valves are leaking for that process unit, the valve must be monitored for the first time during the next scheduled monitoring event for existing valves in the process unit or within 90 days, whichever comes first. [40 CFR 60.482-7(a)(2)(ii)]
- aa. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. [40 CFR 60.482-7(b)]
- bb. 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. [40 CFR 60.482-7(c)(1)(i)]
- cc. As an alternative to monitoring all of the valves in the first month of a quarter, the permittee may elect to subdivide the process unit into 2 or 3 subgroups of valves and monitor each subgroup in a different month during the quarter, provided each subgroup is monitored every 3 months. The permittee must keep records of the valves assigned to each subgroup. [40 CFR 60.482-7(c)(1)(ii)]
- dd. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months. [40 CFR 60.482-7(c)(2)]
- ee. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected, except as provided in 40 CFR 60.482-9. [40 CFR 60.482-7(d)(1)]
- ff. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.482-7(d)(2)]
- gg. First attempts at repair include, but are not limited to, the following best practices where practicable: [40 CFR 60.482-7(e)]
 - i. Tightening of bonnet bolts; [40 CFR 60.482-7(e)(1)]
 - ii. Replacement of bonnet bolts; [40 CFR 60.482-7(e)(2)]
 - iii. Tightening of packing gland nuts; [40 CFR 60.482-7(e)(3)]
 - iv. Injection of lubricant into lubricated packing. [40 CFR 60.482-7(e)(4)]

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

- hh. Any valve that is designated, as described in 40 CFR 60.486(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background, is exempt from the requirements of 40 CFR 60.482-7(a) if the valve: [40 CFR 60.482-7(f)]
 - i. Has no external actuating mechanism in contact with the process fluid, [40 CFR 60.482-7(f)(1)]
 - ii. Is operated with emissions less than 500 ppm above background as determined by the method specified in 40 CFR 60.485(c), and [40 CFR 60.482-7(f)(2)]
 - iii. Is tested for compliance with 40 CFR 60.482-7(f)(2) initially upon designation, annually, and at other times requested by the Administrator. [40 CFR 60.482-7(f)(3)]
- ii. Any valve that is designated, as described in 401 CFR 60.486(f)(1), as an unsafe-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: [40 CFR 60.482-7(g)]
 - i. The permittee of the valve demonstrates that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with 40 CFR 60.482-7(a), and [40 CFR 60.482-7(g)(1)]
 - ii. The permittee of the valve adheres to a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. [40 CFR 60.482-7(g)(2)]
- jj. Any valve that is designated, as described in 40 CFR 60.486(f)(2), as a difficult-to-monitor valve is exempt from the requirements of 40 CFR 60.482-7(a) if: [40 CFR 60.482-7(h)]
 - i. The permittee of the valve demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface. [40 CFR 60.482-7(h)(1)]
 - ii. The process unit within which the valve is located either becomes an affected facility through 40 CFR 60.14 or 60.15 or the permittee designates less than 3.0 percent of the total number of valves as difficult-to-monitor, and [40 CFR 60.482-7(h)(2)]
 - iii. The permittee of the valve follows a written plan that requires monitoring of the valve at least once per calendar year. [40 CFR 60.482-7(h)(3)]

Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors. [40 CFR 60.482-8]

- kk. If evidence of a potential leak is found by visual, audible, olfactory, or any other detection method at pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and connectors, the permittee shall follow either one of the following procedures: [40 CFR 60.782-8(a)]
 - i. The permittee shall monitor the equipment within 5 days by the method specified in 40 CFR 60.485(b) and shall comply with the requirements of 40 CFR 60.482-8(b) through (d). [40 CFR 60.782-8(a)(1)]
 - ii. The permittee shall eliminate the visual, audible, olfactory, or other indication of a potential leak within 5 calendar days of detection. [40 CFR 60.782-8(a)(2)]
- ll. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected. [40 CFR 60.782-8(b)]

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

- mm. When a leak is detected, 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. [40 CFR 60.782-8(c)(1)]
- nn. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. [40 CFR 60.782-8(c)(2)]
- oo. First attempts at repair include, but are not limited to, the best practices described under 40 CFR 60.482-2(c)(2) and 60.482-7(e). [40 CFR 60.782-8(d)]

Standards: Delay of repair. [40 CFR 60.482-9]

- pp. Delay of repair of equipment for which leaks have been detected will be allowed if repair within 15 days is technically infeasible without a process unit shutdown. Repair of this equipment shall occur before the end of the next process unit shutdown. Monitoring to verify repair must occur within 15 days after startup of the process unit. [40 CFR 60.482-9(a)]
- qq. 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)]
- rr. Delay of repair for valves will be allowed if: [40 CFR 60.482-9(c)]
 - i. The permittee demonstrates that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and [40 CFR 60.482-9(c)(1)]
 - ii. When repair procedures are effected, 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)(2)]
- ss. Delay of repair for pumps will be allowed if: [40 CFR 60.482-9(d)]
 - i. Repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and [40 CFR 60.482-9(d)(1)]
 - ii. Repair is completed as soon as practicable, but not later than 6 months after the leak was detected. [40 CFR 60.482-9(d)(2)]
- tt. 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(e)]
- uu. When delay of repair is allowed for a leaking pump or valve that remains in service, the pump or valve may be considered to be repaired and no longer subject to delay of repair requirements if two consecutive monthly monitoring instrument readings are below the leak definition. [40 CFR 60.482-9(f)]
- vv. The permittee shall monitor the critical operational parameters as specified in **7. Specific Control Equipment Operating Conditions.** [401 KAR 52:030, Section 10]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**5. Specific Recordkeeping Requirements:**

- a. The permittee shall comply with the recordkeeping requirements of 40 CFR 60.486. [40 CFR 60.486(a)(1)]
- b. An owner or operator of more than one affected facility subject to the provisions of 40 CFR 60, Subpart VV may comply with the recordkeeping requirements for these facilities in one recordkeeping system if the system identifies each record by each facility. [40 CFR 60.486(a)(2)]
- c. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply: [40 CFR 60.486(b)]
 - i. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. [40 CFR 60.486(b)(1)]
 - ii. 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. [40 CFR 60.486(b)(2)]
 - iii. The identification on equipment except on a valve, may be removed after it has been repaired. [40 CFR 60.486(b)(3)]
- d. When each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location: [40 CFR 60.486(c)]
 - i. The instrument and operator identification numbers and the equipment identification number. [40 CFR 60.486(c)(1)]
 - ii. The date the leak was detected and the dates of each attempt to repair the leak. [40 CFR 60.486(c)(2)]
 - iii. Repair methods applied in each attempt to repair the leak. [40 CFR 60.486(c)(3)]
 - iv. "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. [40 CFR 60.486(c)(4)]
 - v. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak. [40 CFR 60.486(c)(5)]
 - vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown. [40 CFR 60.486(c)(6)]
 - vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days. [40 CFR 60.486(c)(7)]
 - viii. Dates of process unit shutdowns that occur while the equipment is unrepaired. [40 CFR 60.486(c)(8)]
 - ix. The date of successful repair of the leak. [40 CFR 60.486(c)(9)]
- e. 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 kept in a readily accessible location: [40 CFR 60.486(d)]
 - i. Detailed schematics, design specifications, and piping and instrumentation diagrams. [40 CFR 60.486(d)(1)]
 - ii. The dates and descriptions of any changes in the design specifications. [40 CFR 60.486(d)(2)]

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

- iii. 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. [40 CFR 60.486(d)(3)]
 - iv. 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. [40 CFR 60.486(d)(4)]
 - v. 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. [40 CFR 60.486(d)(5)]
- f. 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 in a readily accessible location: [40 CFR 60.486(e)]
- i. A list of identification numbers for equipment subject to the requirements of 40 CFR 60, Subpart VV. [40 CFR 60.486(e)(1)]
 - ii. 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). [40 CFR 60.486(e)(2)(i)]
 - iii. The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 40 CFR 60.482-3(i), or 40 CFR 60.482-7(f) shall be signed by the permittee. Alternatively, the permittee may establish a mechanism with the Division that satisfies this requirement. [40 CFR 60.486(e)(2)(ii)]
 - iv. A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4. [40 CFR 60.486(e)(3)]
 - v. 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). [40 CFR 60.486(e)(4)(i)]
 - vi. The background level measured during each compliance test. [40 CFR 60.486(e)(4)(ii)]
 - vii. The maximum instrument reading measured at the equipment during each compliance test. [40 CFR 60.486(e)(4)(iii)]
 - viii. A list of identification numbers for equipment in vacuum service. [40 CFR 60.486(e)(5)]
 - ix. A list of identification numbers for equipment that the permittee designates as operating in VOC service less than 300 hr/yr in accordance with 40 CFR 60.482-1(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr. [40 CFR 60.486(e)(6)]
- g. The following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location: [40 CFR 60.486(f)]
- i. A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump. [40 CFR 60.486(f)(1)]

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

- ii. A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve. [40 CFR 60.486(f)(2)]
- h. The following information shall be recorded for valves complying with 40 CFR 60.483-2: [40 CFR 60.486(g)]
 - i. A schedule of monitoring. [40 CFR 60.486(g)(1)]
 - ii. The percent of valves found leaking during each monitoring period. [40 CFR 60.486(g)(2)]
- i. The following information shall be recorded in a log that is kept in a readily accessible location: [40 CFR 60.486(h)]
 - i. Design criterion required in 40 CFR 60.482-2(d)(5) and 60.482-3(e)(2) and explanation of the design criterion; and [40 CFR 60.486(h)(1)]
 - ii. Any changes to this criterion and the reasons for the changes. [40 CFR 60.486(h)(2)]
- j. The following information shall be recorded in a log that is kept in a readily accessible location for use in determining exemptions as provided in 40 CFR 60.480(d): [40 CFR 60.486(i)]
 - i. An analysis demonstrating the design capacity of the affected facility, [40 CFR 60.486(i)(1)]
 - ii. A statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol, and [40 CFR 60.486(i)(2)]
 - iii. An analysis demonstrating that equipment is not in VOC service. [40 CFR 60.486(i)(3)]
- k. 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 in a readily accessible location. [40 CFR 60.486(j)]
- l. The provisions of 40 CFR 60.7 (b) and (d) do not apply to affected facilities subject to 40 CFR 60, Subpart VV. [40 CFR 60.486(k)]
- m. Any records required to be maintained by 40 CFR 60, Subpart VV that are submitted electronically via the EPA's Compliance and Emissions Data Reporting Interface (CEDRI) may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to a delegated air agency or the EPA as part of an on-site compliance evaluation. [40 CFR 60.486(l)]
- n. The permittee shall maintain records of the critical operational parameters as specified in **7. Specific Control Equipment Operating Conditions.**

6. Specific Reporting Requirements:

- a. The permittee shall submit semiannual reports to the Administrator beginning six months after the initial startup date. Beginning on July 15, 2025, or once the report template for this subpart has been available on the CEDRI website (<https://www.epa.gov/electronic-reporting-air-emissions/cedri>) for 1 year, whichever date is later, submit all subsequent

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

reports using the appropriate electronic report template on the CEDRI website for 40 CFR 60, Subpart VV and following the procedure specified in 40 CFR 60.487(g). The date report templates become available will be listed on the CEDRI website. Unless the Administrator or delegated state agency or other authority has approved a different schedule for submission of reports, the report must be submitted by the deadline specified in 40 CFR 60, Subpart VV, regardless of the method in which the report is submitted. [40 CFR 60.487(a)]

- b. The initial semiannual report to the Administrator shall include the following information: [40 CFR 60.487(b)]
 - i. Process unit identification. [40 CFR 60.487(b)(1)]
 - ii. Number of valves subject to the requirements of 40 CFR 60.482-7, excluding those valves designated for no detectable emissions under the provisions of 40 CFR 60.482-7(f). [40 CFR 60.487(b)(2)]
 - iii. Number of pumps subject to the requirements of 40 CFR 60.482-2, excluding those pumps designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e) and those pumps complying with 40 CFR 60.482-2(f). [40 CFR 60.487(b)(3)]
 - iv. Number of compressors subject to the requirements of 40 CFR 60.482-3, excluding those compressors designated for no detectable emissions under the provisions of 40 CFR 60.482-3(i) and those compressors complying with 40 CFR 60.482-3(h). [40 CFR 60.487(b)(4)]

- c. All semiannual reports to the Administrator shall include the following information, summarized from the information in 40 CFR 60.486: [40 CFR 60.487(c)]
 - i. Process unit identification. [40 CFR 60.487(c)(1)]
 - ii. For each month during the semiannual reporting period, [40 CFR 60.487(c)(2)]
 - 1. Number of valves for which leaks were detected as described in 40 CFR 60.482-7(b) or 40 CFR 60.483-2, [40 CFR 60.487(c)(2)(i)]
 - 2. Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1), [40 CFR 60.487(c)(2)(ii)]
 - 3. Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b), (d)(4)(ii)(A) or (B), or (d)(5)(iii), [40 CFR 60.487(c)(2)(iii)]
 - 4. Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6), [40 CFR 60.487(c)(2)(iv)]
 - 5. Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f), [40 CFR 60.487(c)(2)(v)]
 - 6. Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1), and [40 CFR 60.487(c)(2)(vi)]
 - 7. The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible. [40 CFR 60.487(c)(2)(vii)]
 - iii. Dates of process unit shutdowns which occurred within the semiannual reporting period. [40 CFR 60.487(c)(3)]
 - iv. Revisions to items reported according to 40 CFR 60.487(b) if changes have occurred since the initial report or subsequent revisions to the initial report. [40 CFR 60.487(c)(4)]

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

- d. An owner or operator electing to comply with the provisions of 40 CFR 60.483-1 or 40 CFR 60.483-2 shall notify the Administrator of the alternative standard selected 90 days before implementing either of the provisions. [40 CFR 60.487(d)]
- e. The permittee shall report the results of all performance tests in accordance with 40 CFR 60.8 of the General Provisions. The provisions of 40 CFR 60.8(d) do not apply to affected facilities subject to the provisions of 40 CFR 60, Subpart VV except that the permittee must notify the Administrator of the schedule for the initial performance tests at least 30 days before the initial performance tests. [40 CFR 60.487(e)]
- f. The requirements of 40 CFR 60.487(a) through (c) remain in force until and unless EPA, in delegating enforcement authority to Kentucky under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected sources within the State will be relieved of the obligation to comply with the requirements of paragraphs (a) through (c) of this section, provided that they comply with the requirements established by the State. The EPA will not approve a waiver of electronic reporting to the EPA in delegating enforcement authority. Thus, electronic reporting to the EPA cannot be waived, and as such, the provisions of this paragraph cannot be used to relieve owners or operators of affected facilities of the requirement to submit the electronic reports required in this section to the EPA. [40 CFR 60.487(f)]
- g. If the permittee is required to submit notifications or reports following the procedure specified in 40 CFR 60.487(g), the permittee must submit notifications or reports to the EPA via CEDRI, which can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). The EPA will make all the information submitted through CEDRI available to the public without further notice to the permittee. Do not use CEDRI to submit information the owner or operator claims as CBI. Although the EPA does not expect persons to assert a claim of CBI, if the permittee wishes to assert a CBI claim for some of the information in the report or notification, the permittee must submit a complete file in the format specified in 40 CFR 60, Subpart VV, including information claimed to be CBI, to the EPA following the procedures in 40 CFR 60.487(g)(1) and (2). Clearly mark the part or all of the information claimed to be CBI. Information not marked as CBI may be authorized for public release without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2. All CBI claims must be asserted at the time of submission. Anything submitted using CEDRI cannot later be claimed CBI. Furthermore, under CAA section 114(c), emissions data is not entitled to confidential treatment, and the EPA is required to make emissions data available to the public. Thus, emissions data will not be protected as CBI and will be made publicly available. The permittee must submit the same file submitted to the CBI office with the CBI omitted to the EPA via the EPA's CDX as described earlier in 40 CFR 60.487(g). [40 CFR 60.487(g)]
- h. The permittee shall report any exceedances or excursions from emission limitations or operating limitations in accordance with **Section F**.

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

7. Specific Control Equipment Operating Conditions:

The condensers associated with EP 10-17, and EP 10-25, must be operated at all times during production with a recovery efficiency of at least 80% and 89.1%, respectively. Refer to Section E.

Compliance Demonstration Method:

- The MAPO process (EP 10-17) shall be deemed to be in compliance when the critical operational parameters are within ranges listed in the following table. Deviations from these ranges shall be investigated and corrective action taken.
- The GAP process (EP 10-25) shall be deemed to be in compliance when the critical operational parameters are within the ranges listed in the following table. Deviations from these ranges shall be investigated and corrective action taken.

MAPO Condenser (HX3011) EP 10-17

Critical Operational Parameters	MAPO Process Design Parameters	MAPO Process Operating Limitations	Control Point Location, Type and ID Tag	Recordkeeping Frequency
Shell Side Coolant Inlet Temperature	35 - 40°F	40°F Maximum	Process Area Chiller Outlet Temperature Indicator (TI37)	Continuously throughout the batch
Shell Side Coolant Outlet Temperature	50 - 60°F	60°F Maximum	Process Area Heat Exchanger Outlet Temperature Indicator (TI38)	Continuously throughout the batch
Coolant Flow Rate	17.3 - 30.0 gpm	17.3 gpm minimum	Process Area Rotameter (RM1055)	Hourly throughout the batch
Tube Side Reactor Vapor Inlet Temperature	75 - 105°F	105°F Maximum	MRF Reactor Vapor Outlet Thermocouple (TE24)	Continuously throughout the batch
Tube Side Heat Exchanger Vapor Outlet Temperature	50 - 70°F	70°F Maximum	Process Area Heat Exchanger Outlet Temperature Indicator (TI36)	Continuously throughout the batch
Pressure Drop Range	0.5 - 1.0 in H ₂ O	≥ 0.5 in H ₂ O	Process Area Inlet / Outlet on Heat Exchanger Differential Pressure Gauge (PR5016)	Hourly throughout the batch

Note: "Continuously throughout the batch" readings are intended as readings that are taken manually and recorded every 30 minutes.

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

MAPO Shell & Tube Heat Exchanger (HX536) EP 10-17

Critical Operational Parameters	MAPO Process Design Parameters	MAPO Process Operating Limitations	Control Point Location, Type and ID Tag	Recordkeeping Frequency
Shell Side Coolant Inlet Temperature	35 - 40°F	40°F Maximum	Mechanical Room Chiller Outlet Thermocouple (TE35)	Continuously throughout the batch
Shell Side Collant Outlet	50 - 60°F	60°F Maximum	Vacuum Pump Room Heat Exchanger Outlet Thermocouple (TE29)	Continuously throughout the batch
Coolant Flow Rate	11.7 - 30.0 gpm	11.7 gpm minimum	Heat exchanger in Vacuum Pump Room Rotameter (RM1054)	Hourly throughout the batch
Tube Side Reactor Vapor Inlet Temperature	75 - 105°F	105°F Maximum	MRF Reactor Vapor Outlet Thermocouple (TE24)	Continuously throughout the batch
Tube Side Heat Exchanger Vapor Outlet Temperature	60 - 90°F	90°F Maximum	Vacuum Pump Room Heat Exchanger Outlet Thermocouple (TE34)	Continuously throughout the batch
Pressure Drop Range	0.5 - 1.0 in H ₂ O	≥ 0.5 in H ₂ O	Vacuum Pump Room Building Inlet / Outlet on Heat Exchanger Differential Pressure Gauge (PR5015)	Hourly throughout the batch

Note: "Continuously throughout the batch" readings are intended as readings that are taken manually and recorded every 30 minutes.

GAP Shell & Tube Exchanger (HX536) EP 10-25

Critical Operational Parameters	Operating Limitation	Control Point Location, Type and ID Tag	Recordkeeping Frequency
Shell Side Coolant Inlet Temperature	40°F (4°C) Maximum	Mechanical Room Chiller Outlet Thermocouple (TE35)	Continuously throughout the batch
Shell Side Coolant outlet Temperature	60°F (16°C) Maximum	Vacuum Pump Room Heat Exchanger Outlet Thermocouple (TE29)	Continuously throughout the batch
Coolant Flow Rate	11.7 gpm Minimum	Mechanical Room Chiller Outlet Rotameter (RM251)	Hourly throughout the batch
Tube Side Reactor Vapor Inlet Temperature	300°F (148°C) Maximum	MRF Reactor Vapor Outlet Thermocouple (TE24)	Continuously throughout the batch
Tube Side Reactor Vapor Outlet Temperature	104°F (40°C) Maximum	Vacuum Pump Room Heat Exchanger Outlet Thermocouple (TE33)	Continuously throughout the batch
Pressure drop range	> 1.0 in H ₂ O	Vacuum Pump Room Building Inlet/Outlet on Heat Exchanger Differential Pressure Gauge (P108)	Hourly throughout the batch

Note: Continuous readings are intended as readings that are taken manually and recorded every 30 minutes

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**EP 99 (99) - Outdoor Test Site****Description:**

Explosives detonation for quality control, R&D, and product demonstrations

Maximum Rating: 8 lb/hr net explosive weight

Construction Date: 2000

Control Device: None

APPLICABLE REGULATIONS:

401 KAR 63:010, *Fugitive emissions.*

1. Operating Limitations:

- a. The permittee shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished; or a road to be used without taking reasonable precaution to prevent particulate matter from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]
 - i. Use, if possible, of water or suitable chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land; [401 KAR 63:010, Section 3(1)(a)]
 - ii. Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts; [401 KAR 63:010, Section 3(1)(b)]
 - iii. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations; [401 KAR 63:010, Section 3(1)(c)]
 - iv. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; [401 KAR 63:010, Section 3(1)(d)]
 - v. The maintenance of paved roadways in a clean condition; or [401 KAR 63:010, Section (3)(1)(e)]
 - vi. The prompt removal of earth or other material from a paved street to which earth or other material has been transported by trucking or earth moving equipment or erosion by water. [401 KAR 63:010, Section 3(1)(f)]
- b. If dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate any administrative regulation, the secretary may order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that all air and gases and air or gas-borne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air. [401 KAR 63:010, Section 3(3)]
- c. At all times while in motion, open bodied trucks, operating outside company property, transporting materials likely to become airborne shall be covered. [401 KAR 63:010, Section 4(1)]

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

- d. The permittee shall not cause, suffer, or allow earth or other material being transported by truck or earth moving equipment to be deposited onto a paved street or roadway. [401 KAR 63:010, Section 4(3)]

2. Emission Limitations:

- a. The permittee shall not cause, suffer, or allow visible fugitive dust emissions beyond the lot line of the property on which the emissions originate, as determined by Reference Method 22 of Appendix A in 40 C.F.R. Part 60, for: [401 KAR 63:010, Section 3(2)]
 - i. More than five (5) minutes of emission time during any sixty (60) minute observation period; or [401 KAR 63:010, Section 3(2)(a)]
 - ii. More than twenty (20) minutes of emission time during any twenty-four (24) hour period. [401 KAR 63:010, Section 3(2)(b)]

3. Testing Requirements:

Pursuant to 401 KAR 50:045, Section 1, performance testing using the reference methods specified in 401 KAR 50:015 shall be conducted if required by the Cabinet.

4. Specific Monitoring Requirements:

- a. The permittee shall monitor the reasonable precautions taken to prevent particulate matter from becoming airborne on a daily basis. [401 KAR 52:030, Section 10]
- b. If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct Reference Method 22 (visual determination of fugitive emissions) observations per Appendix A of 40 C.F.R. Part 60. In lieu of conducting U.S. EPA Reference Method 22, the permittee shall immediately perform a corrective action which results in no visible fugitive dust emissions beyond the lot line of the property. [401 KAR 52:030, Section 10]
- c. The permittee shall monitor the following: [401 KAR 52:030, Section 10]
 - i. Monthly amount and composition of explosives being used; and
 - ii. Monthly hours of operation.
- d. Refer to **Section F** for general monitoring requirements.

5. Specific Recordkeeping Requirements:

- a. The permittee shall maintain a log of the reasonable precautions taken to prevent particulate matter from becoming airborne, on a daily basis. Notation of the operating status, down-time, or relevant weather conditions are acceptable for entry to the log. [401 KAR 52:030, Section 10]
- b. The permittee shall maintain a log of the following: [401 KAR 52:030, Section 10]
 - i. Qualitative fugitive emissions observations conducted including the date, time, initials of observer, whether any fugitive dust emissions were observed;
 - ii. Any Reference Method 22 performed and field records identified in Reference Method 22.
 - iii. Any corrective action taken and the results.

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

- c. The permittee shall maintain records of the following: [401 KAR 52:030, Section 10]
 - i. Monthly amount and composition of explosives being used; and
 - ii. Monthly hours of operation.

- d. Refer to **Section F** for general recordkeeping requirements.

6. Specific Reporting Requirements:

Refer to **Section F** for general reporting requirements.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:030, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

<u>Description</u>	<u>Generally Applicable Regulation</u>
1. Parts cleaners using water and/or alkaline cleaning solutions	None
2. MTF-8 and MTF-9, MRF storage tanks 8 and 9	None
3. MTF-10 and MTF-11, MRF storage tanks 10 and 11	None
4. MRF Boil Tank #1 – 1000 gallons	None
5. MRF Boil Tank #2 – 500 gallons	None
6. Touchup painting using low VOC water-based paint.	None
7. Boric Acid vapor collection from explosive mixing operation	None

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, 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. PM, SO₂, Opacity, VOC, single HAP, and combined HAP 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. The permittee shall not exceed source-wide volatile organic compound (VOC) emissions of 90.0 tons per year on a rolling 12-month basis: [To preclude 401 KAR 52:020 and 401 KAR 51:017]

Compliance Demonstration Method:

The permittee shall by monitor and record the amount of process materials used monthly and perform calculations using the following equations:

$$E_{VOCi} = \sum_{n=1}^N \frac{M_n \times \rho_n \left(1 - \frac{CE}{100}\right)}{2000 \text{ (lb/ton)}}$$

Where:

E_{VOCi} = Monthly VOC emissions for month i (tons/month)

M_n = Total amount of compound n used at each Emission Point (lbs of compound n used/month)

ρ_n = Percent by weight of VOC in compound n (lbs VOC/lb compound n used)

CE is the overall control efficiency (%).

N = Total number of compounds

The permittee shall record the total actual source-wide emissions of VOC for each month (tons per month). The permittee shall also keep records of the 12-month rolling total for VOC emissions using the following equation:

$$\text{Total VOC emissions (tons/year)} = \sum_{i=1}^{12} E_{VOCi}$$

4. The permittee shall not exceed source-wide combined HAP emissions of 22.5 tons and individual HAP emissions of 9.0 tons per year on a rolling 12-month basis. [To preclude 401 KAR 52:020]

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

Compliance Demonstration Method:

The permittee shall monitor and record the amount of process materials used monthly and perform calculations using the following equations:

$$E_{HAPi} = \sum_{n=1}^N \frac{M_n \times EF_{HAP} \left(1 - \frac{CE}{100}\right)}{2000 \text{ (lb/ton)}}$$

Where:

E_{HAPi} = Monthly HAP emissions for month i (tons/month)

M_n = Total amount of compound n used at each Emission Point (units of compound n used/month)

EF_{HAP} = Overall uncontrolled KYEIS HAP emission factor (pounds/unit),

CE is the overall control efficiency (%).

N = Total number of compounds

$$\text{Monthly combined HAP Emissions } \left(\frac{\text{tons}}{\text{month}}\right) = \sum E_{HAPi}$$

The permittee shall record the total source-wide actual emissions for individual and combined HAPs for each month (tons per month). The permittee shall also keep records of the 12-month rolling total for individual and HAP emissions using the following equation:

$$\text{Total HAP emissions (tons/year)} = \sum_{i=1}^{12} E_{HAPi}$$

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.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 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 (5) years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 52:030, Section 3(1)(f)1a, and Section 1a-7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
3. In accordance with the requirements of 401 KAR 52:030, Section 3(1)f, 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 [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
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 52:030, Section 22. If continuous

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

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 permittee shall promptly report deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken shall be submitted to the Regional Office listed on the front of this permit. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. Where the underlying applicable requirement does not identify a specific time frame for reporting deviations, prompt reporting, as required by Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26 shall be defined as follows:
 - a. For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in an applicable regulation) that continue for more than an hour in excess of permit requirements, the report must be made within 24 hours of the occurrence.
 - b. For emissions of any regulated air pollutant, excluding those listed in F.8.a., that continue for more than two hours in excess of permit requirements, the report must be made within 48 hours.
 - c. All deviations from permit requirements, including those previously reported, shall be included in the semiannual report required by F.6.
9. Pursuant to 401 KAR 52:030, 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 in accordance with the following requirements:
 - a. Identification of each 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,

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

- 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.
- f. The certification shall be submitted by January 30th of each year. Annual compliance certifications shall be sent to the Division for Air Quality, Owensboro Regional Office, 3032 Alvey Park Drive W. STE 700, Owensboro, KY 42303-2191.
10. In accordance with 401KAR 52:030, Section 3(1)(d), the permittee shall provide the Division with all information necessary to determine its subject emissions within 30 days of the date the Kentucky Emissions Inventory System (KYEIS) emissions survey is mailed to the permittee. If a KYEIS emissions survey is not mailed to the permittee, then the permittee shall comply with all other emissions reporting requirements in this permit.
11. The Cabinet may authorize the temporary use of an emission unit to replace a similar unit that is taken off-line for maintenance, if the following conditions are met:
- a. The owner or operator shall submit to the Cabinet, at least ten (10) days in advance of replacing a unit, the appropriate Forms DEP7007AI to DD that show:
 - (1) The size and location of both the original and replacement units; and
 - (2) Any resulting change in emissions;
 - b. The potential to emit (PTE) of the replacement unit shall not exceed that of the original unit by more than twenty-five (25) percent of a major source threshold, and the emissions from the unit shall not cause the source to exceed the emissions allowable under the permit;
 - c. The PTE of the replacement unit or the resulting PTE of the source shall not subject the source to a new applicable requirement;
 - d. The replacement unit shall comply with all applicable requirements; and
 - e. The source shall notify Regional office of all shutdowns and start-ups.
 - f. Within six (6) months after installing the replacement unit, the owner or operator shall:
 - (1) Re-install the original unit and remove or dismantle the replacement unit; or
 - (2) Submit an application to permit the replacement unit as a permanent change.

SECTION G - GENERAL PROVISIONS1. General Compliance Requirements

- a. The permittee shall comply with all conditions of this permit. A noncompliance shall be a violation of 401 KAR 52:030, Section 3(1)(b), and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to the termination, revocation and reissuance, revision, or denial of a permit [Section 1a-2 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, 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-5 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
- c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:030, Section 18. 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 52:030, Section 12;
 - (2) The Cabinet or the United States Environmental Protection Agency (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 [Sections 1a- 6 and 7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
- e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:030, Section 3(1)(c)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

- f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:030, Section 7(1)].
- g. 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-11 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
- h. 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-3 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
- i. All emission limitations and standards contained in this permit shall be enforceable as a practical matter. All emission limitations and standards contained in this permit are enforceable by the U.S. EPA and citizens except for those specifically identified in this permit as state-origin requirements. [Section 1a-12 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
- j. 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-9 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
- k. 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 52:030, Section 11(3)].
- l. This permit does not convey property rights or exclusive privileges [Section 1a-8 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26].
- m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.
- n. 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.
- o. 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.

SECTION G - GENERAL PROVISIONS (CONTINUED)

- p. 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.
- q. Pursuant to 401 KAR 52:030, 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 permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
 - (1) Applicable requirements that are included and specifically identified in this permit; and
 - (2) Non-applicable requirements expressly identified in this permit.

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 (6) 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 52:030, Section 12].
- b. The authority to operate granted through this permit 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 52:030, Section 8(2)].

3. Permit Revisions

- a. Minor permit revision procedures specified in 401 KAR 52:030, Section 14(3), 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 State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of 401 KAR 52:030, 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.

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

No construction authorized by Permit F-24-047.

SECTION G - GENERAL PROVISIONS (CONTINUED)**5. Testing Requirements**

- a. 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.
- b. 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, any required 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.
- c. 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.

6. 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.

7. Emergency Provisions

- a. Pursuant to 401 KAR 52:030, Section 23(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other 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) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two (2) working days of the time when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective

SECTION G - GENERAL PROVISIONS (CONTINUED)

actions taken.

(5) Notification of the Division does not relieve the source of any other local, state or federal notification requirements.

- b. Emergency conditions listed in General Provision G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:030, Section 23(3)].
- c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:030, Section 23(2)].

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.
- 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*.

9. 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 U.S. EPA using the RMP* eSubmit software.
- b. If requested, submit additional relevant information to the Division or the U.S. EPA.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

N/A