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 52:020

Permittee Name:	**University of Kentucky**
Mailing Address:	**225 Frank D. Peterson Service Bldg., Lexington, KY 40506**
Source Name:	**University of Kentucky**
Mailing Address:	**225 Frank D. Peterson Service Bldg., Lexington, KY 40506**
Source Location:	**Between S. Upper St. and S. Limestone**
Permit ID:	**V-25-005**
Agency Interest #:	**1104**
Activity ID:	**APE20240002, APE20250002**
Review Type:	**Title V, Construction/Operating**
Source ID:	**21-067-00003**
Regional Office:	**Frankfort Regional Office 300 Sower Boulevard, 1st Floor Frankfort, KY 40601 (502) 564-3358**
County:	**Fayette**
Application Complete Date:	**April 8, 2025**
Issuance Date:	
Expiration Date:	

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

TABLE OF CONTENTS

Permit	**Permit type**	**Activity #**	**Complete Date**	**Issuance Date**	**Summary of Action**
V-25-005	Renewal	APE20240002 APE20250001	4/8/2025		Permit Renewal and several Off Permit and 502(b)(10) changes incorporated Significant Permit Revision for Campus Heating Upgrade Project to Replace Coal fired Boilers 13-1, and 13-2 with new Natural Gas fired Boiler.
		APE20250002	8/8/2025		

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 52:020, Title V Permits.

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

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

Emission Units 01 02 & EU97: Dual Fuel-Fired Indirect Heat Exchangers

Description:

EU 01 and 02 (Central Heating Plant Boiler #1 and Boiler #2)
EU97 (Central Heating Plant Boiler #3)

Maximum Continuous Rating (MMBtu/hr):	127 each (EU 01 & 02) & 120.3 (EU97)
Construction commenced:	2017 (EU 01 & EU02) &2025 EU97
Fuels:	Natural Gas & Ultra Low Sulfur Fuel Oil
Control:	Low NOx Burners (EU01 and EU02) Ultra Low NOx Burner (EU97)

APPLICABLE REGULATIONS:

401 KAR 59:015, New indirect heat exchangers

401 KAR 60:005, Section 2(2)(c) 40 C.F.R. 60.40b through 60.49b (Subpart Db), Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

401 KAR 63:002, Section 2(4)(jjjjj) 40 C.F.R. 63.11193 through 63.11237, Tables 1 through 8 (Subpart JJJJJJ), National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

PRECLUDED REGULATIONS:

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

1. **Operating Limitations:**

   a. The permittee shall meet the work practice standards established in 40 CFR Part 63, Table 2 to Subpart JJJJJJ, as established in 401 KAR 63:002, Section 2(4)(jjjjj). [401 KAR 59:015, Section 7(2)(c)]

   b. The permittee shall minimize the boilers' startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures. If manufacturer's recommended procedures are not available, the permittee shall follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. [401 KAR 59:015, Section 7(2)(c) and 40 CFR 63.11201(b) referencing Table 2, Item 1.]

   Compliance Demonstration Method:
   See **6. Specific Reporting Requirements k.3.**

   c. To preclude applicability of 40 CFR 60.42b, 40 CFR 60.43b, and 40 CFR 60.48b, the units shall use only natural gas and very low sulfur oil that contains no more than 0.30 weight percent sulfur [40 CFR 60.42b(k)(2); 40 CFR 60.43b(h)(5); and 40 CFR 60.48b(j)(2)]. Additionally, to preclude the applicability of the PM emission limitation in 40 CFR 63,

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

Subpart JJJJJJ, Table 1, the boilers shall combust only ultra-low-sulfur liquid fuel (distillate oil with less than 15 ppm sulfur) [40 CFR 63.11210(f)]

d. To preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality (PSD), emission unit EU97 shall not combust more than 413,000-gallon fuel oil per year on twelve (12) month rolling total.

Compliance Demonstration Method:
Compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements a d.** and **f.** and **6. Specific Reporting Requirements i.**

e. The permittee shall conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in 40 CFR 63.11223(b)(1) through (7). Boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up shall conduct a tune-up of the boiler every 5 years as specified in 40 CFR 63.11223(c). [401 KAR 59:015, Section 7(2)(c); 40 CFR 63.11201(b) referencing Table 2, Item 5.; and 40 CFR 63.11223(b) and (c)]

1. Each biennial tune-up shall be conducted no more than 25 months after the previous tune-up [40 CFR 63.11223(b)]. Each 5-year tune-up shall be conducted no more than 61 months after the previous tune-up [40 CFR 63.11223(c)]

2. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection) [40 CFR 63.11223(b)(1)].

3. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available [40 CFR 63.11223(b)(2)].

4. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection) [40 CFR 63.11223(b)(3)].

5. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject [40 CFR 63.11223(b)(4)].

6. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before

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

and after the adjustments are made). Measurements may be taken using a portable CO analyzer [40 CFR 63.11223(b)(5)].

7. If the unit is not operating on the required date for a tune-up, the tune-up shall be conducted within 30 days of startup [40 CFR 63.11223(b)(7)]

Compliance Demonstration Method:
compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements g. through i.** and **6. Specific Reporting Requirements k.**

f. At all times, the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by 40 CFR 63, Subpart JJJJJJ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.11205(a)]

g. See **Section D - Source Emission Limitations and Testing Requirements.**

2. Emission Limitations:

a. Particulate matter (PM) emissions from each stack shall not exceed

1. 0.10 lbs/MMBtu [401 KAR 59:015, Section 4(1)(c)].

Compliance Demonstration Method:
Units are assumed in compliance with the 401 KAR 59:015 PM emission standard while combusting natural gas or fuel oil.

2. While the boilers combust only ultra-low-sulfur liquid fuel, the permittee is not subject to the PM emission limitation in 40 CFR 63, Subpart JJJJJJ, Table 1. If the permittee intends to burn a fuel other than ultra-low-sulfur liquid fuel or gaseous fuels as defined in 40 CFR 63.11237, the permittee shall conduct a performance test within 60 days of burning the new fuel [40 CFR 63.11210(f)].

Compliance Demonstration Method:
Compliance may be demonstrated according to **5. Specific Recordkeeping Requirements h.2.ii.**

b. Opacity emissions from each stack shall not exceed 20 percent opacity except [401 KAR 59:015, Section 4(2)]:

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

1. A maximum of 27 percent opacity shall be allowed for one six minute period in any 60 consecutive minutes [401 KAR 59:015, Section 4(2)(a)];

2. For emissions caused by building a new fire, emissions during the period required to bring the boiler up to operating conditions shall be allowed, if the method used is recommended by the manufacturer and the time does not exceed the manufacturer's recommendations [401 KAR 59:015, Section 4(2)(c)].

Compliance Demonstration Method:

I. These units are assumed to be in compliance with the 401 KAR 59:015 opacity standard while combusting natural gas.

II. While combusting fuel oil, the units shall comply with **2. Emission Limitations c**.

c. While combusting fuel oil, visible emissions from each stack shall not exceed 20 percent opacity (6-minute average) except for one 6-minute period per hour of not more than 27 percent opacity [40 CFR 60.43b(f)]. This opacity standard applies at all times, except during periods of startup, shutdown, or malfunction [40 CFR 60.43b(g)].

Compliance Demonstration Method:
Compliance shall be demonstrated according to **3. Testing Requirements b., 4. Specific Monitoring Requirements d.,** and **5. Specific Recordkeeping Requirements c.** and **e**.

d. Sulfur dioxide (SO_2) emissions from each stack shall not exceed 0.8 lb/MMBtu [401 KAR 59:015, Section 5(1)].

Compliance Demonstration Method:

I. Units are assumed to be in compliance with the 401 KAR 59:015 SO_2 emission standard while combusting natural gas.

II. While combusting fuel oil, compliance shall be demonstrated by **5. Specific Recordkeeping Requirements d**. and **6. Specific Reporting Requirements i.**

e. Emissions of nitrogen oxides (expressed as NO_2) from each stack shall not exceed 0.20 lb/MMBtu based on a 30-day rolling average [40 CFR 60.44b(a) and (i)]. This NO_X standard applies at all times including periods of startup, shutdown, or malfunction [40 CFR 60.44b(h)].

Compliance Demonstration Method:
Compliance shall be demonstrated by performance testing under 40 CFR 60.46b(e), recordkeeping, and reporting [40 CFR 60.46b(c)]. See **3. Testing Requirements a.**, **4. Specific Monitoring Requirements b. and c, 5. Specific Recordkeeping Requirements b. e and f.** and **6. Specific Reporting Requirements c. through h.**

f. See **Section D - Source Emission Limitations and Testing Requirements**.

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

3. **Testing Requirements:**

a. For Emission Unit 97, the permittee shall conduct an initial performance test of CO and NO_x emissions to confirm the validity of manufacturer's emission data relied upon in the application. The initial performance test shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up. Performance testing shall be conducted using the following U.S. EPA Reference Test Methods: [401 KAR 50:045, Section 1]

1. U.S. EPA Reference Method 10 for CO;

2. U.S. EPA Reference Method 7 for NO_x; or

3. Other methods, as approved by the Division.

b. To determine compliance with the emission limits for NO_X required under 40 CFR 60.44b, the permittee shall conduct a performance test using the continuous system for monitoring NO_X under 40 CFR 60.48b(b)(NO_X PEMS) within 60 days after achieving the maximum production rate at which the emission units will be operated, but not later than 180 days after initial startup, or at such other times specified in 40 CFR Part 60, and at such other times as may be required by the Administrator [40 CFR 60.46b(e) and 40 CFR 60.8].

c. For the initial compliance test, NO_X emissions from the steam generating units shall be monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NO_X emission standards under 40 CFR 60.44b. The 30-day average emission rate shall be calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period [40 CFR 60.46b(e)(1)].

d. Following the date on which the initial performance test is completed, the permittee shall upon request, determine compliance with the NO_X standards in 40 CFR 60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NO_X emissions data collected pursuant to 40 CFR 60.48b(g)(1) or 40 CFR 60.48b(g)(2) shall be used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports but will not be used to determine compliance with the NO_X emission standards. A new 30-day rolling average emission rate shall be calculated for each steam generating unit operating day as the average of all of the hourly NO_X emission data for the preceding 30 steam generating unit operating days [40 CFR 60.46b(e)(4)].

e. To determine compliance with the opacity limits under 40 CFR 60.43b (fuel oil), the permittee shall conduct an initial performance test as required under 40 CFR 60.8, and shall conduct subsequent performance tests as requested by the Administrator, using U.S. EPA

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

Reference Method 9 of Appendix A of 40 CFR Part 60 [40 CFR 60.46b(d)(7)]. The permittee shall conduct subsequent U.S. EPA Reference Method 9 performance testing according to the following schedule, as determined by the most recent U.S. EPA Reference Method 9 performance test results: [401 KAR 52:020, Section 10]

1. If no visible emissions are observed, a subsequent U.S. EPA Reference Method 9 performance test shall be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

2. If visible emissions are observed but the maximum 6-minute average opacity is lass than or equal to 5 percent, a subsequent U.S. EPA Reference Method 9 performance test shall be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

3. If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent U.S. EPA Reference Method 9 performance test shall be completed within 3 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or

4. If the maximum 6-minute average opacity is greater than 10 percent, a subsequent U.S. EPA Reference Method 9 performance test shall be completed within 45 calendar days from the date that the most recent performance test was conducted.

f. Testing shall be conducted at such time as may be requested by the Cabinet [401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 4].

5. **Specific Monitoring Requirements:**

a. The permittee shall monitor the amount of natural gas combusted (in MMscf) and the amount of fuel oil combusted (in gallons) during each day and on a monthly basis. [40 CFR 60.49b(d)(1)]

b. The permittee shall [40 CFR 60.48b(g)]:

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

2. Monitor steam generating unit operating conditions and predict NO_X emission rates as specified in a plan submitted pursuant to 40 CFR 60.49b(c) [40 CFR 60.48b(g)(2)]. See **6. Specific Reporting Requirements d.**

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

c. If the option to operate NO_X CEMS is selected, the permittee shall install, calibrate, maintain, and operate CEMS for measuring NO_X and O_2 (or CO_2) emissions discharged to the atmosphere, and shall record the output of the system [40 CFR 60.48b(b)(1)].

1. The CEMS shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments [40 CFR 60.48b(c)].

2. The 1-hour average NO_X emission rates measured by the continuous NO_X monitor shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2) [40 CFR 60.48b(d)].

3. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems [40 CFR 60.48b(e)].

4. The NO_X CEMS span value is 200 ppm [40 CFR 60.48(e)(2)(ii)].

5. When NO_X emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 or 7A of appendix A to 40 CFR Part 60 or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days [40 CFR 60.48b(f)].

d. While combusting fuel oil, the permittee shall conduct a performance test using U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 and the procedures in 40 CFR 60.11 to demonstrate compliance with the applicable limit in 40 CFR 60.43b, and shall comply with either 40 CFR 60.48b(a)(1), (2), or (3). The observation period for U.S. EPA Reference Method 9 of Appendix A-4 or 40 CFR Part 60 performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation [40 CFR 60.48b(a)].

1. Except as provided in 40 CFR 60.48b(a)(2) and (a)(3), the permittee shall conduct subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance tests using the procedures in 40 CFR 60.48b(a) according to the applicable schedule in 40 CFR 60.48b(a)(1)(i) through (a)(1)(iv), as determined by the most recent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test results [40 CFR 60.48b(a)(1)].

i. If no visible emissions are observed, a subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted

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

or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; [40 CFR 60.48b(a)(1)(i)]

ii. If visible emissions are observed, but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; [40 CFR 60.48b(a)(1)(ii)]

iii. If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or [40 CFR 60.48b(a)(1)(iii)]

iv. If the maximum 6-minute average opacity is greater than 10 percent, a subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 test must be completed within 45 calendar days from the date that the most recent performance test was conducted [40 CFR 60.48b(a)(1)(iv)].

2. If the maximum 6-minute opacity is less than 10 percent during the most recent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test, the permittee may, as an alternative to performing subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance tests, elect to perform subsequent monitoring using U.S. EPA Reference Method 22 of Appendix A-7 of 40 CFR Part 60 according to the procedures specified in 40 CFR 60.48b(a)(2)(i) and (ii) [40 CFR 60.48b(a)(2)].

i. The permittee shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using U.S. EPA Reference Method 22 of Appendix A-7 of 40 CFR Part 60 and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (i.e., 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (i.e., 90 seconds per 30 minute period), the permittee shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observations (i.e. 90 seconds) or conduct a new U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60

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

performance test using the procedures in 40 CFR 60.48b(a) within 45 calendar days according to the requirements in 40 CFR 60.46d(d)(7). [40 CFR 60.48b(a)(2)(i)]

ii. If no visible emissions are observed for 10 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed. [40 CFR 60.48b(a)(2)(ii)]

3. If the maximum 6-minute opacity is less than 10 percent during the most recent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test, the permittee may, as an alternative to performing subsequent U.S. EPA Reference Method 9 of Appendix A-4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in 40 CFR 60.48b(a)(2). For reference purposes in preparing the monitoring plan, see OAQPS "Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems." This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods. [40 CFR 60.47c(a)(3)]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the amount of natural gas combusted (in MMscf) and the amount of fuel oil combusted (in gallons) each day and on a monthly basis. [40 CFR 60.49b(d)(1)]]

b. The permittee shall maintain records of the following information for each steam generating unit operating day [40 CFR 60.49b(g)]:

1. Calendar date;

2. The average hourly NO_X emission rates (expressed as NO_2) (ng/J or lb/MMBtu heat input) measured or predicted;

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

4. Identification of the steam generating unit operating days when the calculated 30-day average NO_X emission rates are in excess of the NO_X emissions standards under 40

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

CFR 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;

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

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

7. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;

8. Identification of the times when the pollutant concentration exceeded full span of the CEMS;

9. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

10. Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of 40 CFR Part 60.

c. For each performance test conducted using Method 9 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in 40 CFR 60.49 (f)(1)(i) through (iii) [40 CFR 60.49b(f)(1)]:

1. Dates and time intervals of all opacity observation periods [40 CFR 60.49b(f)(1)(i)];

2. Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test [40 CFR 60.49b(f)(1)(ii)]; and

3. Copies of all visible emission observer opacity field data sheets [40 CFR 60.49b(f)(1)(iii)].

d. The permittee shall obtain and maintain at the affected facility fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the oil meets the definition of distillate oil and gaseous fuel meets the definition of natural gas as defined in 40 CFR 60.41b and the applicable sulfur limit. For the purposes of 40 CFR 60, Subpart Db the distillate oil need not meet the fuel nitrogen content specification in the definition of distillate oil [40 CFR 60.49b(r)(1)].

e. The permittee shall maintain records of all performance tests [40 CFR 60.49b, 401 KAR 52:020, Section 10].

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

f. All records required under 40 CFR 60.49b shall be maintained for a period of 2 years following the date of such record [40 CFR 60.49b(o)], and five years per **Section F - Monitoring, Recordkeeping, and Reporting Requirements 2**.

g. The permittee shall maintain on-site and submit, if requested by the Administrator, a report containing the following information [40 CFR 63.11223(b)(6)]:

1. The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of each boiler [40 CFR 63.11223(b)(6)(i)].

2. A description of any corrective actions taken as a part of the tune-up of each boiler [40 CFR 63.11223(b)(6)(ii)].

3. The type and amount of fuel used over the 12 months prior to the tune-up of each boiler. Units sharing a fuel meter may estimate the fuel use by each unit [40 CFR 63.11223(b)(6)(iii)].

h. The permittee shall maintain the following records [40 CFR 63.11225(c)]:

1. A copy of each notification and report that was submitted to comply with 40 CFR 63, Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted [40 CFR 63.11225(c)(1)].

2. Records to document conformance with the work practices, emission reduction measure, and management practices required by 40 CFR 63.11214 and 40 CFR 63.11223 as specified below [40 CFR 63.11225(c)(2)]:

i. Records shall identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned [40 CFR 63.11225(c)(2)(i)].

3. Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment [40 CFR 63.11225(c)(4)].

4. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation [40 CFR 63.11225(c)(5)].

i. Records shall be in a form suitable and readily available for expeditious review. The permittee shall keep each record for 5 years following the date of each recorded action. The permittee shall keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after

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

the date of each recorded action. The permittee may keep the records off site for the remaining 3 years. [40 CFR 63.11225(d)]

6. Specific Reporting Requirements:

a. The permittee shall calculate the annual capacity factor individually for natural gas and fuel oil for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month. [40 CFR 60.49b(d)(1)]

b. The permittee shall submit notification of the date of initial startup, as provided by 40 CFR 60.7. This notification shall include [40 CFR 60.49b(a)]:

1. The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility; and

2. The annual capacity factor at which the permittee anticipates operating the facility based on all fuels fired and based on each individual fuel fired.

c. The permittee of each affected facility subject to the SO_2, PM, or NO_X emission limits under 40 CFR 60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in Appendix B of 40 CFR Part 60 [40 CFR 60.49b(b)].

d. The permittee of each affected facility subject to the NO_X standard in 40 CFR 60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions in the provisions of 40 CFR 60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored in 40 CFR 60.48b(g)(2) and the records to be maintained in 40 CFR 60.49b(g). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. If the plan is approved, the permittee shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall [40 CFR 60.49b(c)]:

1. Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NO_X emission rates (*i.e.*, ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (*i.e.*, the ratio of primary air to secondary and/or tertiary air) and the level of excess air (*i.e.*, flue gas O_2 level) [40 CFR 60.49b(c)];

2. Include the data and information that the permittee used to identify the relationship between NO_X emission rates and these operating conditions; and

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

3. Identify how these operating conditions, including steam generating unit load, will be monitored under 40 CFR 60.48b(g) on an hourly basis by the permittee during the period of operation of the emission units; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the permittee under 40 CFR 60.49b(g).

e. The permittee shall submit excess emission reports for any excess emissions that occurred during the reporting period [40 CFR 60.49b(h)]. For purposes of 40 CFR 60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average NO_X emission rate, as determined under 40 CFR 60.46b(e), that exceeds the applicable emission limits in 40 CFR 60.44b [40 CFR 60.49b(h)(4)].

f. The permittee shall submit reports of the following information for each steam generating unit operating day [40 CFR 60.49b(i)]:

1. Calendar date;

2. The average hourly NO_X emission rates (expressed as NO_2) (ng/J or lb/MMBtu heat input) measured or predicted;

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

4. Identification of the steam generating unit operating days when the calculated 30-day average NO_X emission rates are in excess of the NO_X emissions standards under 40 CFR 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;

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

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

7. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;

8. Identification of the times when the pollutant concentration exceeded full span of the CEMS;

9. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

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

10. Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of 40 CFR Part 60.

g. The permittee may submit electronic quarterly reports for NO_X in lieu of submitting the written reports required under 40 CFR 60.49b(h), (i), (j), (k) or (l). The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the permittee, indicating whether compliance with the applicable emission standards and minimum data requirements of 40 CFR 60 Subpart Db was achieved during the reporting period. Before submitting reports in the electronic format, the permittee shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format [40 CFR 60.49b(v)].

h. The reporting period for the reports required under 40 CFR 60, Subpart Db is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period [40 CFR 60.49b(w)].

i. Reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting the definition in 40 CFR 60, Subpart Db, natural gas, wood, and/or other fuels that are known to contain insignificant amounts of sulfur were combusted in the affected facility during the reporting period [40 CFR 60.49b(r)(1)].

j. The permittee shall submit to the Administrator all of the notifications in 40 CFR 63.7(b); 63.8(e) and (f); and 63.9(b) through (e), (g), and (h) that apply within 120 days after the boilers become subject to the standard. [40 CFR 63.11225(a)(1) and (2)]

k. The permittee shall prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the company name and address and a statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of 40 CFR 63, Subpart JJJJJJ. The notification shall include the following certification(s) of compliance, as applicable, and signed by a responsible official: [40 CFR 63.11225(b)(1) and (2)]

1. "This facility complies with the requirements in 40 CFR 63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler." [40 CFR 63.11225(b)(2)(i)]

2. For units that do not qualify for a statutory exemption as provided in Section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit." [40 CFR 63.11225(b)(2)(ii)]

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

3. "This facility complies with the requirement in 40 CFR 63.11201(b) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available." [40 CFR 63.11223(g) and 40 CFR 63.11225(b)(2)(iii)]

l. See **Section F - Monitoring, Recordkeeping, and Reporting Requirements**.

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

Emission Units 15 and 16: Dual Fuel-Fired Indirect Heat Exchangers

Description:

EU 15 and 16 (Central Utility Plant Boiler #2 and Boiler #3)

Maximum Continuous Rating (MMBtu/hr):	150 each (EU 15 & 16)
Construction commenced:	EU 15: 2007; EU 16: 2009
Fuels:	Natural Gas & Ultra Low Sulfur Fuel Oil
Control:	Ultra Low NOx Burners

APPLICABLE REGULATIONS:

401 KAR 59:015, New indirect heat exchangers

401 KAR 60:005, Section 2(2)(c) 40 C.F.R. 60.40b through 60.49b (Subpart Db), Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units

401 KAR 63:002, Section 2(4)(jjjjj) 40 C.F.R. 63.11193 through 63.11237, Tables 1 through 8 (Subpart JJJJJJ), National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

PRECLUDED REGULATIONS:

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

1. **Operating Limitations:**

   a. To preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality (PSD), sulfur weight percent shall not exceed 0.3 percent for fuel oil and 2.0 grains/SCF for natural gas.

      Compliance Demonstration Method:
      Compliance shall be demonstrated by **5. Specific Recordkeeping Requirements d**.

   b. To preclude applicability of 40 CFR 60.42b, 40 CFR 60.43b, and 40 CFR 60.48b, the units shall use only natural gas and very low sulfur oil that contains no more than 0.30 weight percent sulfur [40 CFR 60.42b(k)(2); 40 CFR 60.43b(h)(5); and 40 CFR 60.48b(j)(2)].

      Compliance Demonstration Method:
      Compliance shall be demonstrated by **5. Specific Recordkeeping Requirements d.** and **f.** and **6. Specific Reporting Requirements i.**

   c. The permittee shall meet the work practice standards established in 40 CFR Part 63, Table 2 to Subpart JJJJJJ, as established in 401 KAR 63:002, Section 2(4)(jjjjj). [401 KAR 59:015, Section 7(2)(c)]

   d. The permittee shall conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in 40 CFR 63.11223(b)(1) through (7). Boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to

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

a biennial tune-up shall conduct a tune-up of the boiler every 5 years as specified in 40 CFR 63.11223(c). [401 KAR 59:015, Section 7(2)(c); 40 CFR 63.11201(b) referencing Table 2, Item 4.; and 40 CFR 63.11223(b) and (c)]

1. Each biennial tune-up shall be conducted no more than 25 months after the previous tune-up [40 CFR 63.11223(b)]. Each 5-year tune-up shall be conducted no more than 61 months after the previous tune-up [40 CFR 63.11223(c)]

2. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection) [40 CFR 63.11223(b)(1)].

3. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available [40 CFR 63.11223(b)(2)].

4. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection) [40 CFR 63.11223(b)(3)].

5. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject [40 CFR 63.11223(b)(4)].

6. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer [40 CFR 63.11223(b)(5)].

7. If the unit is not operating on the required date for a tune-up, the tune-up shall be conducted within 30 days of startup [40 CFR 63.11223(b)(7)].

Compliance Demonstration Method:
Continuous compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements g. through i.** and **6. Specific Reporting Requirements l.**

e. At all times, the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by 40 CFR 63, Subpart JJJJJJ have been achieved.

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

Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.11205(a)]

Compliance Demonstration Method:
Compliance shall be demonstrated by **5. Specific Recordkeeping Requirements h.4.**

f. See **Section D - Source Emission Limitations and Testing Requirements.**

2. Emission Limitations:

a. Particulate matter emissions from each stack shall not exceed 0.10 lbs/MMBtu [401 KAR 59:015, Section 4(1)(c)].

Compliance Demonstration Method:
Units are assumed in compliance with the 401 KAR 59:015 PM emission standard while combusting natural gas or fuel oil.

b. Opacity emissions from each stack shall not exceed 20 percent opacity except [401 KAR 59:015, Section 4(2)]:

1. A maximum of 27 percent opacity shall be allowed for one six minute period in any 60 consecutive minutes [401 KAR 59:015, Section 4(2)(a)];

2. For emissions caused by building a new fire, emissions during the period required to bring the boiler up to operating conditions shall be allowed, if the method used is recommended by the manufacturer and the time does not exceed the manufacturer's recommendations [401 KAR 59:015, Section 4(2)(c)].

Compliance Demonstration Method:

I. These units are assumed to be in compliance with the 401 KAR 59:015 opacity standard when combusting natural gas.

II. While combusting fuel oil, the units shall comply with **2. Emission Limitations c**.

c. While combusting fuel oil, visible emissions from each stack shall not exceed 20 percent opacity (6-minute average) except for one 6-minute period per hour of not more than 27 percent opacity [40 CFR 60.43b(f)]. This opacity standard applies at all times, except during periods of startup, shutdown, or malfunction [40 CFR 60.43b(g)].

Compliance Demonstration Method:
Compliance shall be demonstrated by **3. Testing Requirements d., 4. Specific Monitoring Requirements d.,** and **5. Specific Recordkeeping Requirements c.** and **e**.

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

d. Sulfur dioxide emissions from each stack shall not exceed 0.8 lb/MMBtu [401 KAR 59:015, Section 5(1)].

Compliance Demonstration Method:

I. Units are assumed to be in compliance with the 401 KAR 59:015 SO_2 emission standard while combusting natural gas.

II. While combusting fuel oil, compliance shall be demonstrated by **5. Specific Recordkeeping Requirements d.** and **6. Specific Reporting Requirements i.**

e. Emissions of nitrogen oxides (expressed as NO_2) from each stack shall not exceed 0.20 lb/MMBtu based on a 30-day rolling average [40 CFR 60.44b(a) and (i)]. This NO_X standard applies at all times including periods of startup, shutdown, or malfunction [40 CFR 60.44b(h)].

Compliance Demonstration Method:
Compliance shall be demonstrated by performance testing under 40 CFR 60.46b(e), recordkeeping, and reporting [40 CFR 60.46b(c)]. See **3. Testing Requirements a., b. and c.**, **4. Specific Monitoring Requirements a., b. and c.** (if applicable)**, 5. Specific Recordkeeping Requirements b. and e.,** and **6. Specific Reporting Requirements c. through h.**

f. See **Section D - Source Emission Limitations and Testing Requirements**.

3. Testing Requirements:

a. To determine compliance with the emission limits for NO_X required under 40 CFR 60.44b, the permittee shall conduct a performance test using the continuous system for monitoring NO_X under 40 CFR 60.48b(b)(NO_X CEMS) within 60 days after achieving the maximum production rate at which the emission units will be operated, but not later than 180 days after initial startup, or at such other times specified in 40 CFR Part 60, and at such other times as may be required by the Administrator [40 CFR 60.46b(e) and 40 CFR 60.8].

b. For the initial compliance test, NO_X emissions from the steam generating units shall be monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NO_X emission standards under 40 CFR 60.44b. The 30-day average emission rate shall be calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period [40 CFR 60.46b(e)(1)].

c. Following the date on which the initial performance test is completed, the permittee shall upon request determine compliance with the NO_X standards in 40 CFR 60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NO_X emissions data collected pursuant to 40 CFR 60.48b(g)(1) or 40 CFR 60.48b(g)(2) shall be used to calculate a 30-day rolling average emission rate on a daily basis and used

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

to prepare excess emission reports, but will not be used to determine compliance with the NO_X emission standards. A new 30-day rolling average emission rate shall be calculated for each steam generating unit operating day as the average of all of the hourly NO_X emission data for the preceding 30 steam generating unit operating days [40 CFR 60.46b(e)(4)].

d. To determine compliance with the opacity limits under 40 CFR 60.43b (fuel oil), the permittee shall conduct an initial performance test as required under 40 CFR 60.8, and shall conduct subsequent performance tests as requested by the Administrator, using U.S. EPA Reference Method 9 of Appendix A of 40 CFR Part 60 [40 CFR 60.46b(d)(7)].

e. Testing shall be conducted at such time as may be requested by the Cabinet [401 KAR 50:045, Section 1 and 401 KAR 59:005, Section 2(2)].

4. Specific Monitoring Requirements:

a. The permittee shall monitor the amount of natural gas combusted (in MMscf) and the amount of fuel oil combusted (in gallons) during each day and on a monthly basis. [40 CFR 60.49b(d)(1)]

b. The permittee shall [40 CFR 60.48b(g)]:

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

2. Monitor steam generating unit operating conditions and predict NO_X emission rates as specified in a plan submitted pursuant to 40 CFR 60.49b(c) [40 CFR 60.48b(g)(2)]. See **6. Specific Reporting Requirements d.**

c. If the option to operate NO_X CEMS is selected, the permittee shall install, calibrate, maintain, and operate CEMS for measuring NO_X and O_2 (or CO_2) emissions discharged to the atmosphere, and shall record the output of the system [40 CFR 60.48b(b)(1)].

1. The CEMS shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments [40 CFR 60.48b(c)].

2. The 1-hour average NO_X emission rates measured by the continuous NO_X monitor shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under 40 CFR 60.44b. The 1-hour averages shall be calculated using the data points required under 40 CFR 60.13(h)(2) [40 CFR 60.48b(d)].

3. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems [40 CFR 60.48b(e)].

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

4. The NO_X CEMS span value is 200 ppm [40 CFR 60.48(e)(2)(ii)].

5. When NO_X emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 or 7A of appendix A to 40 CFR Part 60 or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days [40 CFR 60.48b(f)].

d. While combusting fuel oil, the permittee shall conduct a performance test using U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 and the procedures in 40 CFR 60.11 to demonstrate compliance with the applicable limit in 40 CFR 60.43b, and shall comply with either 40 CFR 60.48b(a)(1), (2), or (3). The observation period for U.S. EPA Reference Method 9 of Appendix A-4 or 40 CFR Part 60 performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation [40 CFR 60.48b(a)].

1. Except as provided in 40 CFR 60.48b(a)(2) and (a)(3), the permittee shall conduct subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance tests using the procedures in 40 CFR 60.48b(a) according to the applicable schedule in 40 CFR 60.48b(a)(1)(i) through (a)(1)(iv), as determined by the most recent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test results [40 CFR 60.48b(a)(1)].

i. If no visible emissions are observed, a subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; [40 CFR 60.48b(a)(1)(i)]

ii. If visible emissions are observed, but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; [40 CFR 60.48b(a)(1)(ii)]

iii. If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or [40 CFR 60.48b(a)(1)(iii)]

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

iv. If the maximum 6-minute average opacity is greater than 10 percent, a subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 test must be completed within 45 calendar days from the date that the most recent performance test was conducted [40 CFR 60.48b(a)(1)(iv)].

2. If the maximum 6-minute opacity is less than 10 percent during the most recent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test, the permittee may, as an alternative to performing subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance tests, elect to perform subsequent monitoring using U.S. EPA Reference Method 22 of Appendix A-7 of 40 CFR Part 60 according to the procedures specified in 40 CFR 60.48b(a)(2)(i) and (ii) [40 CFR 60.48b(a)(2)].

   i. The permittee shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using U.S. EPA Reference Method 22 of Appendix A-7 of 40 CFR Part 60 and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (i.e., 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (i.e., 90 seconds per 30 minute period), the permittee shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observations (i.e. 90 seconds) or conduct a new U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test using the procedures in 40 CFR 60.48b(a) within 45 calendar days according to the requirements in 40 CFR 60.46d(d)(7). [40 CFR 60.48b(a)(2)(i)]

   ii. If no visible emissions are observed for 10 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed. [40 CFR 60.48b(a)(2)(ii)]

3. If the maximum 6-minute opacity is less than 10 percent during the most recent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test, the permittee may, as an alternative to performing subsequent U.S. EPA Reference Method 9 of Appendix A-4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in 40 CFR 60.48b(a)(2). For reference purposes in preparing the monitoring plan, see OAQPS “Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis

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

Systems." This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods. [40 CFR 60.47c(a)(3)]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the amount of natural gas combusted (in MMscf) and the amount of fuel oil combusted (in gallons) each day and on a monthly basis. [40 CFR 60.49b(d)(1)]

b. The permittee shall maintain records of the following information for each steam generating unit operating day [40 CFR 60.49b(g)]:

1. Calendar date;

2. The average hourly NO_X emission rates (expressed as NO_2) (ng/J or lb/MMBtu heat input) measured or predicted;

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

4. Identification of the steam generating unit operating days when the calculated 30-day average NO_X emission rates are in excess of the NO_X emissions standards under 40 CFR 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;

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

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

7. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;

8. Identification of the times when the pollutant concentration exceeded full span of the CEMS;

9. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

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

10. Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of 40 CFR Part 60.

c. For each performance test conducted using Method 9 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in 40 CFR 60.49 (f)(1)(i) through (iii) [40 CFR 60.49b(f)(1)]:

1. Dates and time intervals of all opacity observation periods [40 CFR 60.49b(f)(1)(i)];

2. Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test [40 CFR 60.49b(f)(1)(ii)]; and

3. Copies of all visible emission observer opacity field data sheets [40 CFR 60.49b(f)(1)(iii)].

d. The permittee shall obtain and maintain at the affected facility fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the oil meets the definition of distillate oil and gaseous fuel meets the definition of natural gas as defined in 40 CFR 60.41b and the applicable sulfur limit. For the purposes of 40 CFR 60, Subpart Db the distillate oil need not meet the fuel nitrogen content specification in the definition of distillate oil [40 CFR 60.49b(r)(1)].

e. The permittee shall maintain records of all performance tests [40 CFR 60.49b, 401 KAR 52:020, Section 10].

f. All records required under 40 CFR 60.49b shall be maintained for a period of 2 years following the date of such record [40 CFR 60.49b(o)], and five years per **Section F - Monitoring, Recordkeeping, and Reporting Requirements 2**.

g. The permittee shall maintain on-site and submit, if requested by the Administrator, a report containing the following information [40 CFR 63.11223(b)(6)]:

1. The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of each boiler [40 CFR 63.11223(b)(6)(i)].

2. A description of any corrective actions taken as a part of the tune-up of each boiler [40 CFR 63.11223(b)(6)(ii)].

3. The type and amount of fuel used over the 12 months prior to the tune-up of each boiler. Units sharing a fuel meter may estimate the fuel use by each unit [40 CFR 63.11223(b)(6)(iii)].

h. The permittee shall maintain the following records [40 CFR 63.11225(c)]:

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

1. A copy of each notification and report that was submitted to comply with 40 CFR 63, Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted [40 CFR 63.11225(c)(1)].

2. Records to document conformance with the work practices, emission reduction measure, and management practices required by 40 CFR 63.11214 and 40 CFR 63.11223 as specified below [40 CFR 63.11225(c)(2)]:

   i. Records shall identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned [40 CFR 63.11225(c)(2)(i)].

3. The permittee must keep a copy of the energy assessment report for each boiler [CFR 63.11225(c)(iii)].

4. Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment [40 CFR 63.11225(c)(4)].

5. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation [40 CFR 63.11225(c)(5)].

i. Records shall be in a form suitable and readily available for expeditious review. The permittee shall keep each record for 5 years following the date of each recorded action. The permittee shall keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. The permittee may keep the records off site for the remaining 3 years [40 CFR 63.11225(d)].

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

a. The permittee shall calculate the annual capacity factor individually for natural gas and fuel oil for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month [40 CFR 60.49b(d)(1)].

b. The permittee shall submit notification of the date of initial startup, as provided by 40 CFR 60.7. This notification shall include [40 CFR 60.49b(a)]:

   1. The design heat input capacity of the affected facility and identification of the fuels to be combusted in the affected facility; and

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

2. The annual capacity factor at which the permittee anticipates operating the facility based on all fuels fired and based on each individual fuel fired.

c. The permittee of each affected facility subject to the SO_2, PM, or NO_X emission limits under 40 CFR 60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in Appendix B of 40 CFR Part 60 [40 CFR 60.49b(b)].

d. The permittee of each affected facility subject to the NO_X standard in 40 CFR 60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions in the provisions of 40 CFR 60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored in 40 CFR 60.48b(g)(2) and the records to be maintained in 40 CFR 60.49b(g). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. If the plan is approved, the permittee shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall [40 CFR 60.49b(c)]:

1. Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NO_X emission rates (*i.e.*, ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion (*i.e.*, the ratio of primary air to secondary and/or tertiary air) and the level of excess air (*i.e.*, flue gas O_2 level) [40 CFR 60.49b(c)];

2. Include the data and information that the permittee used to identify the relationship between NO_X emission rates and these operating conditions; and

3. Identify how these operating conditions, including steam generating unit load, will be monitored under 40 CFR 60.48b(g) on an hourly basis by the permittee during the period of operation of the emission units; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the permittee under 40 CFR 60.49b(g).

e. The permittee shall submit excess emission reports for any excess emissions that occurred during the reporting period [40 CFR 60.49b(h)]. For purposes of 40 CFR 60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average NO_X emission rate, as determined under 40 CFR 60.46b(e), that exceeds the applicable emission limits in 40 CFR 60.44b [40 CFR 60.49b(h)(4)].

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

f. The permittee shall submit reports of the following information for each steam generating unit operating day [40 CFR 60.49b(i)]:

1. Calendar date;

2. The average hourly NO_X emission rates (expressed as NO_2) (ng/J or lb/MMBtu heat input) measured or predicted;

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

4. Identification of the steam generating unit operating days when the calculated 30-day average NO_X emission rates are in excess of the NO_X emissions standards under 40 CFR 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;

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

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

7. Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;

8. Identification of the times when the pollutant concentration exceeded full span of the CEMS;

9. Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

10. Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of 40 CFR Part 60.

g. The permittee may submit electronic quarterly reports for NO_X in lieu of submitting the written reports required under 40 CFR 60.49b(h), (i), (j), (k) or (l). The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the permittee, indicating whether compliance with the applicable emission standards and minimum data requirements of 40 CFR 60 Subpart Db was achieved during the reporting period. Before submitting reports in the electronic format, the permittee shall coordinate with the

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

permitting authority to obtain their agreement to submit reports in this alternative format [40 CFR 60.49b(v)].

h. The reporting period for the reports required under 40 CFR 60, Subpart Db is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period [40 CFR 60.49b(w)].

i. Reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting the definition in 40 CFR 60, Subpart Db, natural gas, wood, and/or other fuels that are known to contain insignificant amounts of sulfur were combusted in the affected facility during the reporting period [40 CFR 60.49b(r)(1)].

j. The permittee shall submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed according to Table 2 of 40 CFR 63, Subpart JJJJJJ and that the assessment is an accurate depiction of the facility at the time of the assessment or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended. [40 CFR 63.11214(c)]

k. The permittee shall submit to the Administrator all of the notifications in 40 CFR 63.7(b); 63.8(e) and (f); and 63.9(b) through (e), (g), and (h) that apply within 120 days after the boilers become subject to the standard. [40 CFR 63.11225(a)(1) and (2)]

l. The permittee shall prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the company name and address and a statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of 40 CFR 63, Subpart JJJJJJ. The notification shall include the following certification(s) of compliance, as applicable, and signed by a responsible official: [40 CFR 63.11225(b)(1) and (2)]

    1. "This facility complies with the requirements in 40 CFR 63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler." [40 CFR 63.11225(b)(2)(i)]

    2. For units that do not qualify for a statutory exemption as provided in Section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit." [40 CFR 63.11225(b)(2)(ii)]

m. See **Section F - Monitoring, Recordkeeping, and Reporting Requirements.**

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

Emission Units 09, 10 and 82: Dual Fuel-Fired Indirect Heat Exchangers

Description:

EU 09 and EU 10 (Medical Center Boiler #3 and Boiler #4); EU 82 (Samaritan 03)

Maximum Continuous Rating (MMBtu/hr):	144 each (EU 9 & EU 10) 20.9 (EU 82)
Construction commenced:	Before 1970
Fuels:	Natural Gas & Ultra Low Sulfur Fuel Oil

APPLICABLE REGULATIONS:

401 KAR 61:015, Existing indirect heat exchangers

401 KAR 63:002, Section 2(4)(jjjjj) 40 C.F.R. 63.11193 through 63.11237, Tables 1 to 8 (Subpart JJJJJJ), National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

1. **Operating Limitations:**

   a. The permittee shall meet the work practice standards established in 40 CFR Part 63, Table 2 to Subpart JJJJJJ, as established in 401 KAR 63:002, Section (2)(4)(jjjjj). [401 KAR 61:015, Section 9(2)(c)]

   b. The permittee shall conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in 40 CFR 63.11223(b)(1) through (7). Boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up shall conduct a tune-up of the boiler every 5 years as specified in 40 CFR 63.11223(c). [401 KAR 61:015, Section 9(2)(c); 40 CFR 63.11201(b) referencing Table 2, Item 4.; and 40 CFR 63.11223(b) and (c)]

      1. Each biennial tune-up shall be conducted no more than 25 months after the previous tune-up [40 CFR 63.11223(b)]. Each 5-year tune-up shall be conducted no more than 61 months after the previous tune-up [40 CFR 63.11223(c)]

      2. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection) [40 CFR 63.11223(b)(1)].

      3. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available [40 CFR 63.11223(b)(2)].

      4. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection) [40 CFR 63.11223(b)(3)].

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

5. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject [40 CFR 63.11223(b)(4)].

6. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer [40 CFR 63.11223(b)(5)].

7. If the unit is not operating on the required date for a tune-up, the tune-up shall be conducted within 30 days of startup [40 CFR 63.11223(b)(7)].

Compliance Demonstration Method:
Continuous compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements c. through e.** and **6. Specific Reporting Requirements c.**

c. At all times, the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by 40 CFR 63, Subpart JJJJJJ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.11205(a)]

Compliance Demonstration Method:
Compliance shall be demonstrated by **5. Specific Recordkeeping Requirements d.4.**

d. See **Section D - Source Emission Limitations and Testing Requirements**.

2. Emission Limitations:

a. For EU 09 and 10, particulate emissions from each stack shall not exceed 0.29 lb/MMBtu [401 KAR 61:015, Section 4(1)], and for EU 82, particulate emissions from the stack shall not exceed 0.53 lb/MMBtu [401 KAR 61:015, Section 4(1)].

Compliance Demonstration Method:
Units are assumed to be in compliance with the 401 KAR 61:015 emission standard while combusting natural gas or fuel oil.

b. Opacity emissions from each stack shall not exceed 40 percent opacity except that for emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions if the method used is that

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

recommended by the manufacturer and the time does not exceed the manufacturer's recommendations [401 KAR 61:015, Section 4(1)(c) and 4(1)(c)3.].

Compliance Demonstration Method:

I. Units are assumed to be in compliance with the 401 KAR 61:015 emission standard while combusting natural gas.

II. While combusting fuel oil, see **4. Specific Monitoring Requirements b.** and **5. Specific Recordkeeping Requirements b.**

c. For EU 09 and 10, sulfur dioxide emissions from each stack shall not exceed 4.0 lb/MMBtu [401 KAR 61:015, Section 5(1)], and for EU 82, sulfur dioxide emissions from the stack shall not exceed 4.97 lb/MMBtu [401 KAR 61:015, Section 5(1)].

Compliance Demonstration Method:
Units are considered in compliance with the 401 KAR 61:015 emission standards while combusting natural gas or fuel oil.

d. See **Section D - Source Emission Limitations and Testing Requirements**.

3. Testing Requirements:

Testing shall be conducted at such time as may be requested by the Cabinet [401 KAR 50:045, Section 1 and 401 KAR 61:005, Section 2(2)].

4. Specific Monitoring Requirements:

a. The permittee shall monitor the amount of natural gas combusted (in MMscf) and the amount of fuel oil combusted (in gallons) on a monthly basis [401 KAR 52:020, Section 10; and 401 KAR 61:015, Section 6(5)].

b. While combusting fuel oil, the permittee shall perform a qualitative visual observation of the opacity of emissions at each stack on a weekly basis while the affected facility is operating. If visible emissions from the stacks are observed (not including condensed water in the plume), the permittee shall determine the opacity using U.S. EPA Reference Method 9. In lieu of determining the opacity using U.S. EPA Reference Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume) [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain the records of the amount of natural gas combusted (in MMscf) and the amount of fuel oil combusted (in gallons) on a monthly basis. [401 KAR 52:020, Section 10; and 401 KAR 61:015, Section 6(5)].

b. The permittee shall maintain a log of the qualitative visual observations made as specified in **4. Monitoring Requirements** including the date, time, initials of observer, whether any

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

emissions were observed (yes/no), and any U.S. EPA Reference Method 9 readings taken [401 KAR 52:020, Section 10].

c. The permittee shall maintain on-site and submit, if requested by the Administrator, a report containing the following information [40 CFR 63.11223(b)(6)]:

1. The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of each boiler [40 CFR 63.11223(b)(6)(i)].

2. A description of any corrective actions taken as a part of the tune-up of each boiler [40 CFR 63.11223(b)(6)(ii)].

3. The type and amount of fuel used over the 12 months prior to the tune-up of each boiler. Units sharing a fuel meter may estimate the fuel use by each unit [40 CFR 63.11223(b)(6)(iii)].

d. The permittee shall maintain the following records [40 CFR 63.11225(c)]:

a. A copy of each notification and report that was submitted to comply with 40 CFR 63, Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted [40 CFR 63.11225(c)(1)].

b. Records to document conformance with the work practices, emission reduction measure, and management practices required by 40 CFR 63.11214 and 40 CFR 63.11223 as specified below [40 CFR 63.11225(c)(2)]:

i. Records shall identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer’s specifications to which the boiler was tuned [40 CFR 63.11225(c)(2)(i)].

c. The permittee must keep a copy of the energy assessment report for each boiler. [CFR 63.11225(c)(iii)]

d. Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment [40 CFR 63.11225(c)(4)].

e. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation [40 CFR 63.11225(c)(5)].

e. Records shall be in a form suitable and readily available for expeditious review. The permittee shall keep each record for 5 years following the date of each recorded action.

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

The permittee shall keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. The permittee may keep the records off site for the remaining 3 years. [40 CFR 63.11225(d)]

6. Specific Reporting Requirements:

a. The permittee shall submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed according to Table 2 of 40 CFR 63, Subpart JJJJJJ and that the assessment is an accurate depiction of the facility at the time of the assessment or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended. [40 CFR 63.11214(c)]

b. The permittee shall submit to the Administrator all of the notifications in 40 CFR 63.7(b); 63.8(e) and (f); and 63.9(b) through (e), (g), and (h) that apply within 120 days after the boilers become subject to the standard. [40 CFR 63.11225(a)(1) and (2)]

c. The permittee shall prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the company name and address and a statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of 40 CFR 63, Subpart JJJJJJ. The notification shall include the following certification(s) of compliance, as applicable, and signed by a responsible official: [40 CFR 63.11225(b)(1) and (2)]

1. "This facility complies with the requirements in 40 CFR 63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler." [40 CFR 63.11225(b)(2)(i)]

2. For units that do not qualify for a statutory exemption as provided in Section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit." [40 CFR 63.11225(b)(2)(ii)]

d. See **Section F - Monitoring, Recordkeeping, and Reporting Requirements**.

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

Emission Units 20-21, 57, 87, 102, and 103: Twenty Natural Gas-Fired Indirect Heat Exchangers

Emission Unit	Make and Model	Unit bldg	Max. Rating MMBtu/hr	Construction Commenced
EU 20-21	Kewanee L3W-60-G94677	Bruce Poundstone bldg. 275	2*2.5	1987
EU57-1	Weil-McLain K12	Eng. Transportation bldg. 20	2.31	1981
EU57-2 thru EU57- 5	Johnson Air AR-105GP & 85DP- Weil-McLain LGB-7 & LGB-16	Nutter Field House bldg. 285	3*2.14 1*1.95	1993
EU57-6		410 Rose Lane bldg. 507	2.06	1999
EU57-7 EU57-8	Applied Air DFC-218-HRS-75/25	Boone Tennis Center bldg. 0213	2*1.38	1986
EU57-9 EU57-10	Lochinvar CHN1440	Building 200 bldg. 655	2*1.44	1997
EU87	Sellers J091720-1	Still bldg. 719	2.93 ~~29~~	6/1/2023
EU102	Bell & Gossett SU66-2	Barnhart bldg. 276	1.5	2/14 ~~2~~/2025
EU103	Shell and Tube PVI Industries	Craft Football Training bldg. 280	6*1.6	5/28/2025

APPLICABLE REGULATIONS:

401 KAR 59:015, New indirect heat exchangers

1. **Operating Limitations:**
   a. At all times, including periods of start-up, 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

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

control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the cabinet which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [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 of each affected facility during startup periods and shutdown periods, shall be documented by 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 the manufacturer's recommended procedures or 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 of the affected facility [401 KAR 59:015, Section 7(1)(e)1. and 2.]

Compliance Demonstration Method for a through e:
See **5. Specific Recordkeeping Requirements b**.

2. Emission Limitations:

a. For EU 20-21 particulate emissions from each stack shall not exceed 0.26 lb/MMBtu and for EU 57, particulate emissions from each stack shall not exceed 0.10 lb/MMBtu [401 KAR 59:015, Section 4(1)(b)].

b. Emissions shall not exceed 20 percent opacity except [401 KAR 59:015, Section 4(2)]:

11. A maximum of 27 percent opacity shall be allowed for one six minute period in any 60 consecutive minutes [401 KAR 59:015, Section 4(2)(a)]; and

12. For emissions caused by building a new fire, emissions during the period required to bring the boiler up to operating conditions shall be allowed, if the method used is recommended by the manufacturer and the time does not exceed the manufacturer's recommendations [401 KAR 59:015, Section 4(2)(c)].

c. For EU 20-21 and EU 57 sulfur dioxide emissions from each unit shall not exceed 0.8 lb/MMBtu [401 KAR 59:015, Section 5(1)(b)].

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

Compliance Demonstration Method for a through c:
These units are considered in compliance with the PM, opacity and SO_2 emission standards while combusting natural gas.

d. See **Section D - Source Emission Limitations and Testing Requirements.**

3. Testing Requirements:

Testing shall be conducted at such time as may be requested by the Cabinet [401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 1].

4. Specific Monitoring Requirements:

The permittee shall monitor the amount of natural gas combusted (in MMscf) on a monthly basis [401 KAR 52:020, Section 10].

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 52:020, Section 10].

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 actions taken [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

See **Section F - Monitoring, Recordkeeping, and Reporting Requirements**.

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

Emission Units 22-48: Twelve Natural Gas-Fired Indirect Heat Exchangers

Description:

Emission Unit	Make and Model	Unit bldg	Max. Rating MMBtu/hr	Construction Commenced
EU22 EU23	Weil-McLain J-11 16643 & 44	Shawneetown Bldg A bldg 189	2*1.25	Pre 1956
EU24 EU25	Weil-McLain J-11 16645 & 46	Shawneetown Bldg B bldg 190	2*1.25	Pre 1956
EU26 EU27	Weil-McLain J-11 16653 & 54	Shawneetown Bldg C bldg 194	2*1.25	Pre 1956
EU28 EU29	Weil-McLain J-11 16655 & 56	Shawneetown Bldg D bldg 191	2*1.25	Pre 1956
EU30 EU31	Weil-McLain J-11 16657 & 58	Shawneetown Bldg E bldg 193	2*1.25	Pre 1956
EU32 EU33	Weil-McLain J-11 16659 & 60	Shawneetown Bldg F bldg 192	2*1.25	Pre 1956

APPLICABLE REGULATIONS:

401 KAR 61:015, Existing indirect heat exchangers

1. **Operating Limitations:**

   a. At all times, including periods of start-up, 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 cabinet which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [401 KAR 61:015 Section 9(1)(a)].

   b. The frequency and duration of startup periods or shutdown periods shall be minimized by the affected facility [401 KAR 61:015, Section 9(1)(b)].

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

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 61:015, Section 9(1)(c)].

d. The actions, including duration of the startup period, of the permittee during startup periods and shutdown periods, shall be documented by signed, contemporaneous logs or other relevant evidence [401 KAR 61:015, Section 9(1)(d)].

e. Startups and shutdowns shall be conducted according to either the manufacturer's recommended procedures or 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 of the affected facility [401 KAR 61:015, Section 9(1)(e)(1) and (2)]

Compliance Demonstration Method for a through e:
See **5. Specific Recordkeeping Requirements b**.

2. Emission Limitations:

a. Particulate emissions from each stack shall not exceed 0.29 lb/MMBtu [401 KAR 61:015, Section 4].

b. Emissions from each stack shall not exceed 40 percent opacity with respect to particulate matter based on a six-minute average [401 KAR 61:015, Section 4(3)].

c. Emissions from an indirect heat exchanger shall not exceed 40 percent opacity based on a six minute average except during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations [401 KAR 61:015, Section 4(3)(c)].

d. Sulfur dioxide emissions from each unit shall not exceed 4.0 lb/MMBtu [401 KAR 61:015, Section 5(1)].

Compliance Demonstration Method for a through d:
These units are considered in compliance with the PM, opacity and SO_2 emission standards while combusting natural gas.

e. See **Section D - Source Emission Limitations and Testing Requirements.**

3. Testing Requirements:

Testing shall be conducted at such time as may be requested by the Cabinet [401 KAR 50:045, Section 1 and 401 KAR 61:005, Section 2(2)].

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

4. Specific Monitoring Requirements:

The permittee shall monitor the amount of natural gas combusted (in MMscf) on a monthly basis [401 KAR 52:020, Section 10].

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 52:020, Section 10; and 401 KAR 61:015, Section 6(5)].

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 actions taken [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

See **Section F - Monitoring, Recordkeeping, and Reporting Requirements**.

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

Emission Units 51, 83 and 84: Dual Fuel-Fired Indirect Heat Exchangers

Description:

EU 51 (Central Utility Plant Boiler #1); EU 83 and 84 (Samaritan 01 and 02)

Maximum Continuous Rating (MMBtu/hr):	72.3 (EU 51); 12.0 (EU 83) and 12.0 (EU 84)
Construction commenced:	EU 51 before 2004 EU 83 and 84 before 2006
Primary fuel:	Natural Gas
Secondary fuel:	#2 fuel oil
Control:	EU 51, low NOx burner

APPLICABLE REGULATIONS:

401 KAR 59:015, New indirect heat exchangers

401 KAR 60:005, Section 2(2)(d) 40 C.F.R. 60.40c through 60.48c (Subpart Dc), Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

401 KAR 63:002, Section 2(4)(jjjjj) 40 C.F.R. 63.11193 through 63.11237, Tables 1 to 8 (Subpart JJJJJJ), National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

PRECLUDED REGULATIONS:

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

1. Operating Limitations:

a. The permittee shall meet the work practice standards established in 40 CFR 63, Table 2 to Subpart JJJJJJ, as established in 401 KAR 63:002, Section 2(4)(jjjjj). [401 KAR 59:015, Section 7(2)(c)]

b. The permittee shall conduct a tune-up of the boiler biennially to demonstrate continuous compliance as specified in 40 CFR 63.11223(b)(1) through (7). Boilers with an oxygen trim system that maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune-up shall conduct a tune-up of the boiler every 5 years as specified in 40 CFR 63.11223(c). [401 KAR 59:015, Section 7(2)(c); 40 CFR 63.11201(b) referencing Table 2, Item 4.; and 40 CFR 63.11223(b) and (c)]

1. Each biennial tune-up shall be conducted no more than 25 months after the previous tune-up [40 CFR 63.11223(b)]. Each 5-year tune-up shall be conducted no more than 61 months after the previous tune-up [40 CFR 63.11223(c)]

2. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the permittee may delay the burner inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection) [40 CFR 63.11223(b)(1)].

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

3. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available [40 CFR 63.11223(b)(2)].

4. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the permittee may delay the inspection until the next scheduled unit shutdown, not to exceed 36 months from the previous inspection) [40 CFR 63.11223(b)(3)].

5. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject [40 CFR 63.11223(b)(4)].

6. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer [40 CFR 63.11223(b)(5)].

7. If the unit is not operating on the required date for a tune-up, the tune-up shall be conducted within 30 days of startup [40 CFR 63.11223(b)(7)].

Compliance Demonstration Method:
Continuous compliance shall be demonstrated according to **5. Specific Recordkeeping Requirements e. through g.** and **6. Specific Reporting Requirements d.**

c. At all times, the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by 40 CFR 63, Subpart JJJJJJ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.11205(a)]

Compliance Demonstration Method:
Compliance shall be demonstrated by **5. Specific Recordkeeping Requirements d.4.**

d. See **Section D - Source Emission Limitations and Testing Requirements**.

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

2. Emission Limitations:

a. For EU 51, particulate emissions from the stack shall not exceed 0.1 lb/ MMBtu, and for EU 83 and 84, particulate emissions from the stacks shall not exceed 0.39 lb/MMBtu. [401 KAR 59:015, Section 4(1)(c)]

Compliance Demonstration Method:
Units are considered in compliance with emission standard while combusting natural gas or fuel oil.

b. Opacity emissions from each stack shall not exceed 20 percent opacity except [401 KAR 59:015, Section 4(2)]:

1. A maximum of 27 percent opacity shall be allowed for one six minute period in any 60 consecutive minutes [401 KAR 59:015, Section 4(2)(a)];

2. For emissions caused by building a new fire, emissions during the period required to bring the boiler up to operating conditions shall be allowed, if the method used is recommended by the manufacturer and the time does not exceed the manufacturer's recommendations [401 KAR 59:015, Section 4(2)(c)].

Compliance Demonstration Method:

I. Units are considered in compliance with the emission standard while combusting natural gas.

II. While combusting fuel oil, the units shall comply with **2. Emission Limitations c**.

c. While burning fuel oil, visible emissions shall not exceed 20 percent opacity, based on a 6-minute average, except for one 6-minute period per hour of not more than 27 percent opacity. The opacity standard under 40 CFR 60.43c applies at all times, except during periods of startup, shutdown, or malfunction. [40 CFR 60.43c(c) and (d); and 401 KAR 59:015, Section 4(2)(a)]

Compliance Demonstration Method:

I. For EU 51 compliance shall be demonstrated according to **3. Testing Requirements a., 4. Specific Monitoring Requirements b., 5. Specific Recordkeeping Requirements b.**, and **6. Specific Reporting Requirements a.**

II. For EU 83 and 84 compliance shall be demonstrated according to **4. Specific Monitoring Requirements c.** and **5. Specific Recordkeeping Requirements c.**

d. For EU 51, sulfur dioxide emissions from the stack shall not exceed 0.8 lb/MMBtu and for EU 83 and 84, sulfur dioxide emissions from each stack shall not exceed 4.97 lb/MMBtu [401 KAR 59:015, Section 5 (1)(b)].

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

Compliance Demonstration Method:

I. Units are considered in compliance with emission standards while combusting natural gas.

II. While combusting fuel oil, compliance shall be demonstrated by 2. Emission Limitations e.

e. While combusting fuel oil, SO_2 emissions shall not exceed 0.50 lb/MMBtu (215 ng/J); or, as an alternative, the permittee shall not combust liquid fuel that contains greater than 0.5 weight percent sulfur. The SO_2 standard under 40 CFR 60.42c applies at all times, including periods of startup, shutdown, and malfunction. [40 CFR 60.42c(d) and (i)]

Compliance Demonstration Method:
Compliance shall be determined based on a certification from the fuel supplier, as described under 40 CFR 60.48c(f). [40 CFR 60.42c(h)(1)] and **5. Specific Recordkeeping Requirements d**.

f. See **Section D - Source Emission Limitations and Testing Requirements**

3. Testing Requirements:

a. For EU 51, to determine compliance with the opacity limits under 40 CFR 60.43c (fuel oil), the permittee shall conduct an initial performance test as required under 40 CFR 60.8, and shall conduct subsequent performance tests as requested by the Administrator, using U.S. EPA Reference Method 9 of Appendix A of 40 CFR Part 60 [40 CFR 60.45c(a)].

b. Testing shall be conducted at such time as may be requested by the Cabinet [401 KAR 50:045, Section 1 and 401 KAR 59:005, Section 2(2)].

4. Specific Monitoring Requirements:

a. The permittee shall monitor the amount of natural gas combusted (in MMscf) and the amount of fuel oil combusted (in gallons) on a monthly basis. [40 CFR 60.48c(g)(2)]

b. For EU 51, while combusting fuel oil, the permittee shall conduct a performance test using U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 and the procedures in 40 CFR 60.11 to demonstrate compliance with the applicable limit in 40 CFR 60.43c, and shall comply with either 40 CFR 60.47c(a)(1), (2), or (3). The observation period for U.S. EPA Reference Method 9 of Appendix A-4 or 40 CFR Part 60 performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation [40 CFR 60.47c(a)].

1. Except as provided in 40 CFR 60.47c(a)(2) and (a)(3), the permittee shall conduct subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance tests using the procedures in 40 CFR 60.47c(a) according to the applicable

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

schedule in 40 CFR 60.47c(a)(1)(i) through (a)(1)(iv), as determined by the most recent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test results [40 CFR 60.47c(a)(1)].

i. If no visible emissions are observed, a subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; [40 CFR 60.47c(a)(1)(i)]

ii. If visible emissions are observed, but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; [40 CFR 60.47c(a)(1)(ii)]

iii. If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or [40 CFR 60.47c(a)(1)(iii)]

iv. If the maximum 6-minute average opacity is greater than 10 percent, a subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 test must be completed within 45 calendar days from the date that the most recent performance test was conducted [40 CFR 60.47c(a)(1)(iv)].

2. If the maximum 6-minute opacity is less than 10 percent during the most recent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test, the permittee may, as an alternative to performing subsequent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance tests, elect to perform subsequent monitoring using U.S. EPA Reference Method 22 of Appendix A-7 of 40 CFR Part 60 according to the procedures specified in 40 CFR 60.47c(a)(2)(i) and (ii) [40 CFR 60.47c(a)(2)].

i. The permittee shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using U.S. EPA Reference Method 22 of Appendix A-7 of 40 CFR Part 60 and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (i.e., 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute

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

observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (i.e., 90 seconds per 30 minute period), the permittee shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observations (i.e. 90 seconds) or conduct a new U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test using the procedures in 40 CFR 60.47c(a) within 45 calendar days according to the requirements in 40 CFR 60.45c(a)(8). [40 CFR 60.47c(a)(2)(i)]

ii. If no visible emissions are observed for 10 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed. [40 CFR 60.47c(a)(2)(ii)]

3. If the maximum 6-minute opacity is less than 10 percent during the most recent U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60 performance test, the permittee may, as an alternative to performing subsequent U.S. EPA Reference Method 9 of Appendix A-4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in 40 CFR 60.47c(a)(2). For reference purposes in preparing the monitoring plan, see OAQPS "Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems." This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods. [40 CFR 60.47c(a)(3)]

c. For EU 83 and 84, while combusting fuel oil, the permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis while the affected facility is operating. If visible emissions from the stacks are observed (not including condensed water in the plume), the permittee shall determine the opacity using U.S. EPA Reference Method 9. In lieu of determining the opacity using U.S. EPA Reference Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume).[401 KAR 52:020, Section 10].

5. **Specific Recordkeeping Requirements:**

a. The permittee shall maintain records of the amount of natural gas combusted (in MMscf), and the amount of fuel oil combusted (in gallons) on a monthly basis. [40 CFR 60.48c(g)(2)]

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

b. The permittee shall maintain records according to the requirements specified in 40 CFR 60.48c(c)(1) through (3), as applicable to the visible emissions monitoring method used for compliance with 40 CFR 60, Subpart Dc [40 CFR 60.48c(c)].

1. For each performance test conducted using U.S. EPA Reference Method 9 of Appendix A-4 of 40 CFR Part 60, the permittee shall keep the records including the information specified in 40 CFR 60.48c(c)(1)(i) through (iii) [40 CFR 60.48c(c)(1)].

i. Dates and time intervals of all opacity observation periods [40 CFR 60.48c(c)(1)(i)];

ii. Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test [40 CFR 60.48c(c)(1)(ii)]; and

iii. Copies of all visible emission observer opacity field data sheets [40 CFR 60.48c(c)(1)(iii)];

2. For each performance test conducted using U.S. EPA Reference Method 22 of Appendix A-4 of 40 CFR Part 60, the permittee shall keep the records including the information specified in 40 CFR 60.48c(c)(2)(i) through (iv) [40 CFR 60.48c(c)(2)].

i. Dates and time intervals of all visible emission observation periods [40 CFR 60.48c(c)(2)(i)];

ii. Name and affiliation for each visible emission observer participating in the performance test [40 CFR 60.48c(c)(2)(ii)];

iii. Copies of all visible emission observer opacity field data sheets [40 CFR 60.48c(c)(2)(iii)]; and

iv. Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the permittee to demonstrate compliance with the applicable monitoring requirements [40 CFR 60.48c(c)(2)(iv)].

3. For each digital opacity compliance system, the permittee shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator [40 CFR 60.48c(c)(3)].

c. A log of the qualitative visual observations made as specified in **4. Monitoring Requirements** including the date, time, initials of observer, whether any emissions were observed (yes/no), and any U.S. EPA Reference Method 9 readings taken [401 KAR 52:020, Section 10].

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

d. The permittee shall maintain records of fuel supplier certification for fuel oil that includes the following information [40 CFR 60.48c(f)]

1. The name of the oil supplier;

2. A statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c; and

3. The sulfur content or maximum sulfur content of the oil.

e. The permittee shall maintain on-site and submit, if requested by the Administrator, a report containing the following information [40 CFR 63.11223(b)(6)]:

1. The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of each boiler [40 CFR 63.11223(b)(6)(i)].

2. A description of any corrective actions taken as a part of the tune-up of each boiler [40 CFR 63.11223(b)(6)(ii)].

3. The type and amount of fuel used over the 12 months prior to the tune-up of each boiler. Units sharing a fuel meter may estimate the fuel use by each unit [40 CFR 63.11223(b)(6)(iii)].

f. The permittee shall maintain the following records [40 CFR 63.11225(c)]:

1. A copy of each notification and report that was submitted to comply with 40 CFR 63, Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that was submitted [40 CFR 63.11225(c)(1)].

2. Records to document conformance with the work practices, emission reduction measure, and management practices required by 40 CFR 63.11214 and 40 CFR 63.11223 as specified below [40 CFR 63.11225(c)(2)]:

i. Records shall identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned [40 CFR 63.11225(c)(2)(i)].

3. The permittee must keep a copy of the energy assessment report for each boiler. [CFR 63.11225(c)(iii)]

4. Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment [40 CFR 63.11225(c)(4)].

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

5. Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation [40 CFR 63.11225(c)(5)].

g. Records shall be in a form suitable and readily available for expeditious review. The permittee shall keep each record for 5 years following the date of each recorded action. The permittee shall keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least 2 years after the date of each recorded action. The permittee may keep the records off site for the remaining 3 years. [40 CFR 63.11225(d)]

6. Specific Reporting Requirements:

a. The permittee shall submit excess emission reports for any emissions in excess of the 40 CFR 60.43c(c) opacity limit that occur during the reporting period. The permittee shall submit reports including fuel oil fuel supplier certifications with a statement signed by the permittee that the records of fuel supplier certification submitted represent all of the fuel oil combusted during the reporting period. [40 CFR 60.48c(c) and (e)]

b. The permittee shall submit a signed certification in the Notification of Compliance Status report that an energy assessment of the boiler and its energy use systems was completed according to Table 2 of 40 CFR 63, Subpart JJJJJJ and that the assessment is an accurate depiction of the facility at the time of the assessment or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended. [40 CFR 63.11214(c)]

c. The permittee shall submit to the Administrator all of the notifications in 40 CFR 63.7(b); 63.8(e) and (f); and 63.9(b) through (e), (g), and (h) that apply within 120 days after the boilers become subject to the standard. [40 CFR 63.11225(a)(1) and (2)]

d. The permittee shall prepare, by March 1 of each year, and submit to the delegated authority upon request, an annual compliance certification report for the previous calendar year containing the company name and address and a statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of 40 CFR 63, Subpart JJJJJJ. The notification shall include the following certification(s) of compliance, as applicable, and signed by a responsible official: [40 CFR 63.11225(b)(1) and (2)]

1. "This facility complies with the requirements in 40 CFR 63.11223 to conduct a biennial or 5-year tune-up, as applicable, of each boiler." [40 CFR 63.11225(b)(2)(i)]

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

2. For units that do not qualify for a statutory exemption as provided in Section 129(g)(1) of the Clean Air Act: "No secondary materials that are solid waste were combusted in any affected unit." [40 CFR 63.11225(b)(2)(ii)]

e. See **Section F - Monitoring, Recordkeeping, and Reporting Requirements**.

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

Emission Units 07 and 08: Two Coal-Fired Indirect Heat Exchangers

Description:

(Medical Center Boiler #1 and #2)

Maximum Continuous Rating (MMBtu/hr):	75.0 each boiler (EU 07 & 08)
Construction commenced:	before 1958
Primary fuel:	Coal
Control Device:	Cyclone integral to operation

APPLICABLE REGULATIONS:

401 KAR 61:015, Existing indirect heat exchangers

401 KAR 63:002, Section 2(4)(jjjjj) 40 C.F.R. 63.11193 through 63.11237, Tables 1 through 8 (Subpart JJJJJJ), National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources

PRECLUDED REGULATIONS:

401 KAR 63:002, Section 2(4)(iiii) 40 C.F.R. 63.7480 through 63.7575, Tables 1 through 13 (Subpart DDDDD), National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters

1. **Operating Limitations:**

   a. The permittee shall minimize the boiler's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures. If manufacturer's recommended procedures are not available, the permittee shall follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. [401 KAR 61:015, Section 9(2)(c); and 40 CFR 63.11201(b) referencing Table 2, Item 1.]

      Compliance Demonstration Method:
      The permittee shall include a signed statement that this requirement was met in the Notification of Compliance Status Report [40 CFR 63.11223(g)]. See **5. Specific Recordkeeping Requirements b**.

   b. To preclude the applicability of 401 KAR 51:017 and 40 CFR 63, Subpart DDDDD, to satisfy 40 CFR 63, Subpart JJJJJJ, the facility shall comply with the emission limitations set forth in **Section D - Source Emission Limitations and Testing Requirements** for hydrogen chloride (HCl) and total HAPS.

      Compliance Demonstration Method:
      See **4. Specific Monitoring Requirements d**. and **5. Specific Recordkeeping Requirements d**.

   c. At all times, the permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner

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

consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require any further efforts to reduce emissions if levels required by 40 CFR 63, Subpart JJJJJJ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.11205(a)]

d. The permittee must demonstrate compliance with all applicable emission limits using performance stack testing, fuel analysis, or a continuous monitoring system (CMS), including a continuous emission monitoring system (CEMS), a continuous opacity monitoring system, or a continuous parameter monitoring system (CPMS) where applicable. The permittee may demonstrate compliance with the applicable mercury emission limit using fuel analysis if the emission rate calculated according to 40 CFR 63.11211(c) is less than the applicable emission limit. Otherwise, the permittee must demonstrate compliance using stack testing [40 CFR 63.11205(b)].

2. Emission Limitations:

a. Particulate emissions from the stack shall not exceed 1.09 lb/MMBtu [401 KAR 61:015, Section 4(1)(a)].

Compliance Demonstration Method:
See **3. Testing Requirements a.**

b. Opacity emissions from the stack shall not exceed forty (40) percent except that for stoker fired indirect heat exchangers, a maximum of sixty (60) percent opacity shall be permissible for not more than six consecutive minutes in any sixty consecutive minutes during cleaning the fire box or blowing soot [401 KAR 61:015, Section 4(1)(c) and 4(1)(c)2.]. Emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions if the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations [401 KAR 61:015, Section 4(1)(c)3.].

Compliance Demonstration Method:
See **3. Testing Requirements b., 4. Specific Monitoring Requirements c. and 5. Specific Recordkeeping Requirements a.**

c. The sulfur dioxide emissions from the stack shall not exceed 6.0 lb/MMBtu [401 KAR 61:015, Section 5(1)]:

Compliance Demonstration Method:
See **4. Specific Monitoring Requirements a.** & **b.** and **5. Specific Recordkeeping Requirements d.**

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

d. Mercury emissions shall not exceed 2.2E-05 lb/MMBtu of heat input [40 CFR 63.11201(a), referencing Item 6.a. of Table 1. of 40 CFR 63, Subpart JJJJJJ]. The permittee shall achieve compliance with this standard no later than one-hundred-eighty (180) days after the date specified in 40 CFR 63.11196(a)(2) [40 CFR 63.11210(b)].

Compliance Demonstration Method:
The permittee shall meet the requirements of 40 CFR 63.11222(a). The permittee shall demonstrate compliance with the mercury emission limit either by:

I. by stack testing according to **3. Testing Requirements c**.

II. or fuel analysis according to **3. Testing Requirements d** and **4. Specific Monitoring Requirements f.**

III. If the permittee chooses to demonstrate compliance with fuel analysis, the permittee shall maintain the fuel type or fuel mixture, by annual average, such that the mercury emission rate calculated according to 40 CFR 63.11211(c) is less than the emission limit for mercury given above [40 CFR 63.11201(c), referencing Item 6. of Table 3., and Item 6.a. of Table 7. of 40 CFR 63 Subpart JJJJJJ].

e. CO emissions shall not exceed 420 ppm by volume on a dry basis corrected to 3 percent oxygen. [Referencing Item 6.c. of Table 1. of 40 CFR 63, Subpart JJJJJJ]. The permittee shall achieve compliance with this standard no later than one-hundred-eighty (180) days after the date specified in 40 CFR 63.11196(a)(2) [40 CFR 63.11210(b) and 40 CFR 63.11201(a)].

Compliance Demonstration Method:
The permittee shall demonstrate compliance with the CO emission limit by stack testing according to **3. Testing Requirements e.**

I. The permittee shall install, operate, and maintain a continuous monitoring system (CMS) for oxygen according to **4. Specific Monitoring Requirements g**.

II. The permittee shall maintain the oxygen level at or above the lowest one (1) hour average oxygen level measured during the most recent CO performance stack test [40 CFR 63.11201, referencing Item 8. of Table 3. of 40 CFR 63 Subpart JJJJJJ, and 40 CFR 63.11222, referencing Item 7. of Table 7. of 40 CFR 63 Subpart JJJJJJ].

III. The permittee must demonstrate continuous compliance with each emission limit and operating limit in Tables 1 and 3 to 40 CFR 63 Subpart JJJJJJ that applies according to the methods specified in table 7 to 40 CFR 63 Subpart JJJJJJ and 40 CFR 63.11222 (a)(1) through (4) [40 CFR 63.11222].

f. See **Section D - Source Emission Limitations and Testing Requirements**.

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

3. Testing Requirements:

a. The permittee shall conduct performance tests for particulate emissions using U.S. EPA Reference Method 5 and for HCl using U.S. EPA Reference Method 26 within 5 years of the last test for PM and HCl to demonstrate compliance with the applicable standard. The permittee shall submit a schedule within six months from the date of the third year issuance of the final permit to conduct at least one performance test for PM [401 KAR 50:045]. Upon completion of this test, PM and HCl tests shall occur every five years thereafter.

b. When the unit is in operation, the permittee shall read, the opacity of emissions frequently but no less than every seven calendar days using U.S. EPA Reference Method 9. The monitoring shall be performed while the affected facility is in operation. [401 KAR 52:020, Section 10].

c. Stack testing for mercury, if required for compliance with **2. Emission Limitations d.**, shall be performed according to Item 2. of Table 4. of 40 CFR 63, Subpart JJJJJJ [40 CFR 63.11205(b) and 40 CFR 63.11210(a)].

1. The stack testing shall be performed according to 40 CFR 63.11212.

2. Subsequent stack tests must be conducted on a triennial basis, unless permitted otherwise by 40 CFR 63.11220.

d. Fuel analysis for mercury, if possible for compliance with the mercury emission limitation, shall be performed according to the procedures of 40 CFR 63.11211(c) and 40 CFR 63.11213.

e. Stack testing for CO shall be performed according to Item 3. of Table 4. of 40 CFR 63, Subpart JJJJJJ [40 CFR 63.11210(a)].

3. The stack testing shall be performed according to 40 CFR 63.11212.

4. The stack testing shall establish a unit-specific limit for a minimum oxygen level according to Item 3. of Table 6. of 40 CFR 63, Subpart JJJJJJ and 40 CFR 63.11211(a).

5. Subsequent stack tests must be conducted on a triennial basis, unless permitted otherwise by 40 CFR 63.11220.

f. For boilers that demonstrate compliance with a performance stack test, the permittee shall maintain the operating load of each unit such that it does not exceed 110 percent of the average operating load recorded during the most recent performance stack test. [Referencing Item 7. of Table 3. of 40 CFR 63, Subpart JJJJJJ and 40 CFR 63.11201].

g. If a performance stack test is required, the permittee shall submit a Notification of Intent to conduct a performance test at least 60 days before the performance stack test is scheduled to begin [40 CFR 63.11225(a)(3)].

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

4. **Specific Monitoring Requirements:**

   a. Monitoring of operations for sulfur dioxide emissions shall be conducted by representative sampling and analysis of fuel monthly. Records of the fuel sampling and analysis and sulfur and heat content shall be maintained for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 61:015, Section 6 (6)].

   b. The rate of fuel combustion shall be recorded at least monthly. The heating value and ash content of fuels shall be ascertained per delivered shipment [401 KAR 61:015, Section 6 (3)].

   c. The permittee shall perform a qualitative visual observation of the opacity of emissions at each stack no less than weekly while the affected facility is operating. If visible emissions from the stacks are observed (not including condensed water in the plume), the permittee shall determine the opacity using U.S. EPA Reference Method 9. In lieu of determining the opacity using U.S. EPA Reference Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume).[401 KAR 52:020, Section 10]

   d. The permittee shall monitor the fuel usage (in tons/hr) of each unit and determine the HCl emissions from each unit on a monthly basis. HCl emissions shall be determined based on the equation listed in **Section D - Source Emission Limitations and Testing Requirements 10** [401 KAR 52:020, Section 10].

   e. The permittee shall adhere to the minimum requirements of 40 CFR 63.11221.

   f. If the permittee chooses to demonstrate compliance with the mercury emission limit, by fuel analysis, then the permittee shall maintain records of the mercury content and amount of all coal burned in the boiler according to 40 CFR 63.11222(a)(2) and (3) [40 CFR 63.11222].

   g. The permittee, since the boiler is subject to a CO emission limit in Table 1 to 40 CFR 63 Subpart JJJJJJ, must either install, operate, and maintain a CEMS for CO and oxygen according to the procedures in 40 CFR 63.11224(a)(1) through (6) (40 CFR 63.11224), or install, calibrate, operate, and maintain an oxygen analyzer system, as defined in 40 CFR 63.11237, according to the manufacturer's recommendations and 40 CFR 63.11224(a)(7) and (d) (40 CFR 63.11224), as applicable, by the compliance date specified in 40 CFR 63.11196. Where a certified CO CEMS is used, the CO level shall be monitored at the outlet of the boiler, after any add-on controls or flue gas recirculation system and before release to the atmosphere. Boilers that use a CO CEMS are exempt from the initial CO performance testing and oxygen concentration operating limit requirements specified in 40 CFR 63.11211(a) of 40 CFR 63 Subpart JJJJJJ. [Referencing Item 6. of Table 1. of 40 CFR 63 Subpart JJJJJJ and 40 CFR 63.11224].

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

5. **Specific Recordkeeping Requirements:**

   a. A log of the qualitative visual observations made as specified in **4. Monitoring Requirements** including the date, time, initials of observer, whether any emissions were observed (yes/no), and any U.S. EPA Reference Method 9 readings taken [401 KAR 52:020, Section 10].

   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 actions taken [401 KAR 52:020, Section 10].

   c. The permittee shall maintain records of the control equipment maintenance [401 KAR 52:020, Section 10].

   d. Records of fuel usage, HCl emissions calculated, the sulfur content, and heat content of monthly coal analysis of bulk coal samples shall be maintained by the permittee [401 KAR 52:020, Section 10].

   e. Records, including those documenting the results of each compliance test, shall be kept [401 KAR 52:020, Section 10].

   f. The permittee shall maintain the records specified in 40 CFR 63.11225(c) [40 CFR 63.11225].

      1. The records shall be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1).

      2. As specified in 40 CFR 63.10(b)(1), the permittee shall keep each record for five (5) years following the date of each recorded action.

      3. The permittee shall keep each record onsite for at least two (2) years after the date of each recorded action according to 40 CFR 63.10(b)(1).

      4. The permittee must keep the record; according to requirements of 40 CFR 63.11225(c) and (d).

   g. See **Section F - Monitoring, Recordkeeping, and Reporting Requirements**.

6. Specific Reporting Requirements:

   a. The permittee shall report the fuel usage, sulfur content, and heat content [401 KAR 52:020, Section 10].

   b. The permittee shall report the number of excursions (excluding startup, shutdown, and malfunction data) above the opacity standard, date and time of excursions, opacity value

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

of the excursions, and percentage of the opacity data showing excursions above the opacity standard in each calendar quarter [401 KAR 52:020, Section 10].

c. The permittee shall report the number of excursions above the sulfur dioxide standard, date of excursions, value of the excursions, and percentage of the sulfur dioxide data showing excursions from emission limitation in each calendar quarter [401 KAR 52:020, Section 10].

d. The permittee shall submit a signed certification in the Notification of Compliance Status report that an energy assessment of each applicable boiler and its energy use systems was completed and submit, upon request, the energy assessment report [40 CFR 63.11214(c)].

e. The permittee shall report each instance in which the permittee did not meet each applicable emission limit and operating limit from Tables 1 and 3 of 40 CFR 63 Subpart JJJJJJ, according to the requirements in 40 CFR 63.11225 [40 CFR 63.11222(b)].

f. The permittee shall submit initial notifications, notifications of intent to conduct a performance test, and notifications of compliance status as required in 40 CFR 63.11225(a), and annual compliance certification reports as required in 40 CFR 63.11225(b) [40 CFR 63.11225(a) and 40 CFR 63.11225(b)].

g. Within 60 days after the date of completing each performance test (as defined in 40 CFR 63.2) required by 40 CFR 63 Subpart JJJJJJ, the permittee shall submit the results of the performance tests, including any associated fuel analyses, required by 40 CFR 63 Subpart JJJJJJ following the procedure specified in 40 CFR 63.11225(e)(1)(i) or (ii). [40 CFR 63.11225(e)(1)]

1. For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (*https://www3.epa.gov/ttn/chief/ert/ert_info.html*) at the time of the test, the permittee shall submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (*https://cdx.epa.gov/*).) Performance test data shall be submitted in a file format generated through the use of the EPA's ERT or an alternative electronic file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site. If the permittee claims that some of the performance test information being submitted is confidential business information (CBI), the permittee shall submit a complete file generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT Web site, including information claimed to be CBI, on a compact disc, flash drive, or other commonly used electronic storage media to the EPA. The electronic media shall be clearly marked as CBI and mailed to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT or alternate file with the CBI omitted shall be

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

submitted to the EPA via the EPA's CDX as described earlier. [40 CFR 63.11225(e)(1)(i)]

2. For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, the permittee shall submit the results of the performance test to the Administrator at the appropriate address listed in 40 CFR 63.13. [40 CFR 63.11225(e)(1)(ii)]

h. See **Section D - Source Emission Limitations and Testing Requirements** and **Section F - Monitoring, Recordkeeping, and Reporting Requirements**.

7. **Specific Control Equipment Operating Conditions:**

i. The emission unit and associated integral cyclones shall be operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and/or standard operating practices [401 KAR 50:055].

j. Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].

k. See **Section E - Source Control Equipment Requirements**.

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

Emission Units 49-50: Paint Spray Booths

Description:

(Frank D. Peterson Bldg.)
Operating rate: 2.0 gal/hr, each for EU 49-50, Maintenance Shop Paint Spray Booths (2)
Control Device: Fabric filter
Construction Commenced: 1975

APPLICABLE REGULATIONS:

401 KAR 59:010, New process operations

1. **Operating Limitations:**

   The permittee shall limit the hours of operation of the paint booths to 300 hours per year (12 month rolling total) per booth.

2. **Emission Limitations:**

   a. Particulate emissions shall not exceed 2.34 lb/hr [401 KAR 59:010, Section 3(2)].

   b. Visible emissions shall not equal or exceed 20 percent opacity [401 KAR 59:010, Section 3(1)].

      Compliance Demonstration Method
      The permittee shall operate and maintain the unit consistent with manufacturer's recommendations and procedures.

   c. See **Section D - Source Emission Limitations and Testing Requirements**.

3. **Testing Requirements:**

   Testing shall be conducted at such times as may be requested by the Cabinet [401 KAR 50:045, Section 1 and 401 KAR 59:005, Section 2(2)]

4. **Specific Monitoring Requirements:**

   The amount of each coating used and hours of operations shall be monitored on a monthly basis per booth [401 KAR 52:020, Section 10].

5. **Specific Recordkeeping Requirements:**

   a. Records of each coating used and hours of operation shall be kept on a monthly basis per booth [401 KAR 52:020, Section 10].

   b. Records of all routine and non-routine maintenance [401 KAR 52:020, Section 10].

6. **Specific Reporting Requirements:**

   See **Section F - Monitoring, Recordkeeping, and Reporting Requirements**.

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

7. Specific Control Equipment Operating Conditions:

a. While the paint spray booths are in operation, the associated fabric filter shall be continuously operated [401 KAR 50:055]

b. Records regarding the maintenance of the control equipment shall be maintained [401 KAR 52:020, Section 10].

c. See **Section E - Source Control Equipment Requirements**

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

Emission Units 53, 54, 55, 56, 59, 63, 64, 65 and 66: Fifty-Seven Diesel-Fired Emergency Generators

Description:

Emission Unit	Location	Manufacturer and Model No.	Maximum Engine Rating	Construction Commenced
53-01	CUP bldg.518	Cat. SR43516BDITA	2885	2004
54-01	MCHC - Campus bldg.85	Caterpillar SR4	749	pre-2005
54-02	UK Hospital - Chandler bldg. 293	Caterpillar 3512STD	1592	pre-2005
54-03	Bosomworth bldg. 305	Caterpillar SR-4	1332	1993
54-04	Ben Roach Cancer bldg. 93	Caterpillar SR4	750	pre-2005
54-05	Combs Building bldg. 96	Caterpillar 3412C	679	pre-2005
54-06	KY Clinic bldg. 284	Caterpillar SR4-3412	749	pre-2005
55-01	Plant Science bldg. 312	Caterpillar SR-4B	1502	pre-2005
55-02	W.T. Young bldg. 456	Caterpillar SR4	1482	pre-2005
55-03	ASTECC bldg. 286	Kohler 800ROZD71	1232	pre-2005
55-04	Central Heating bldg. 4	Kohler 30R82	752	pre-2005
55-05	MCHC Hospital #1 bldg. 85	Caterpillar SR4B	2385	pre-2005
55-06	Chemistry - Physics bldg. 55	Onan 300ROZ81	800	pre-2005
55-07	Patterson Tower bldg. 27	Cummins NUTTA-855-GS2	555	pre-2005
55-08	Anderson Eng bldg. 503	Caterpillar SR48	562	pre-2005
55-09	Robotics bldg. 108	Magnamax 57IRSL3024A-F312W	455	pre-2005
56-01	Multi Dis Science bldg. 82	Caterpillar 3406DI	429	pre-2004
56-02	Dental Science bldg. 297	Caterpillar 3406	449	pre-2004
56-04	MRISC - PAV WH bldg. 98	Caterpillar 3306	335	pre-2004
56-05	UK - Chandler bldg. 293	Generac 3286A-1266A	330	pre-2004
56-06	College of Nursing bldg. 232	Caterpillar 3306 PG	227	pre-2004
56-07	Research Bldg #1 bldg. 3	Kohler 30R82	39	1996
59-01	Ag Science North bldg. 91	Onan 300DFCB	472	pre-2004
59-03	Gluck Equine bldg. 99	Caterpillar SR-4	472	pre-2004
59-04	Chemistry - Physics bldg. 55	Onan 300ROZ81	472	pre-2004
59-05	Funkhouser bldg. 54	Kohler 200R0ZD81	315	pre-2004
59-06	Bradley Hall bldg. 58	Kohler 200R0ZD81	315	pre-2004
59-07	Garrigus bldg. 215	Kohler 115R7852329A29	230	pre-2004
59-09	Bruce Poundstone bldg. 275	Kohler 100RZ281	157	pre-2004
59-10	EJ Nutter Training Center bldg. 277	Kohler 4BT3.9/GC	79	pre-2004
59-11	Seaton bldg. 219	Onan 45-ODEF-15R/11164F	71	pre-2004
59-16	Mines & Minerals bldg. 107	Caterpillar SR-4	275	pre-2004
59-17	Fine Arts Guignol bldg. 22	Katolight D45FPH4	71	pre-2004
59-21	KY Tobacco Research bldg. 236	Mecon 500FDF4656AA-M315W	448	pre-2004

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

Emission Unit	Location	Manufacturer and Model No.	Maximum Engine Rating	Construction Commenced
59-23	Kroger Field-North bldg. 222	Kohler 23RE0ZD	378	pre-2004
59-24	Gray Design bldg. 101	Delco-AC 15278KO	220	pre-2004
59-25	Safety & Security bldg. 23	Onan DGDB-3375637	157	pre-2004
59-26	441 Penn bldg. 505	Onan DEDB-4960835	157	pre-2004
59-28	Singletary Center bldg. 241	Kohler 100R0Z81	157	pre-2004
59-29	Dickey Hall bldg. 17	Kohler 80R0ZJ81	126	pre-2004
59-30	Hardymon bldg. 495	KOHLER 60ROZJ	98	pre-2004
59-31	Indoor Track & Field bldg. 746	KOHLER 60REOZJ	96	pre-2004
59-32	Stuckert Career Center bldg. 494	Spectrum 6008	94	pre-2004
59-35	410 Rose Lane bldg. 507	Kohler 40ROZJ81	63	pre-2004
59-37	Johnson Center bldg. 220	Onan DGBB-495597	55	pre-2004
59-38	Little Fine Arts bldg. 224	Kohler 30R022 81	52	pre-2004
59-40	Bradley Hall bldg. 58	Generac 96A07003-5	39	pre-2004
59-41	Parking #1 bldg. 197	Kohler 20ROZJ61	39	pre-2004
59-43	Boone Faculty Club bldg. 14	Kohler 15RMOY81	24	pre-2004
59-45	Eng Annex bldg. 38	Kohler 8.5RM081	13	pre-2004
59-48	Parking #7 bldg. 572	Winco S100ADS-4R/A	157	pre-2004
59-57	Oldham Court bldg. 353	Generac SD050	80	2007
59-58	Grehan bldg.42	Kohler 200REOZJF	315	2019
60-01	MCHC Hospital #4 bldg. 85	Cat. SR4B-GD3516B	3286	2007
61-01	MCHC Hospital #3 bldg. 85	Cat. SR4B-GD3516B	3286	2007
62-01	MCHC Hospital #2 bldg. 85	Cat. SR4B-GD3516B	3286	2007
63-01	Roselle Hall bldg. 568	Cat. SR43306B	390	2005
64-01	Baldwin Hall bldg. 566	Caterpillar 3306B	390	2005
65-01	Joe Craft Center bldg. 604	Cummins 150DGFA	277	2006
66-01	Parking #7 bldg. 572	Olympian D100P1	166	2005

APPLICABLE REGULATIONS:

N/A

PRECLUDED REGULATIONS:

401 KAR 63:002, Section 2(4)(eeee) 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

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

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

1. Operating Limitations:

a. For EU 53, to preclude 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality, the unit shall not operate more than 200 hours per year (12 month rolling total) and shall not burn more than 27,000 gallons of diesel fuel per year (12 month rolling total.)

b. For EU 63, 64, 65, and 66, to preclude the applicability of KAR 51:017, each emission unit shall not operate more than 500 hours per year (12 month rolling total) and shall be further restricted such that the total hours operating limit listed in **Section D - Source Emission Limitations and Testing Requirements** for these units is not exceeded. Additionally, the fuel sulfur weight percent shall not exceed 0.3 percent for fuel oil, and the usage rate of fuel oil (12 month rolling total) in all affected facilities shall be restricted so the emission limitations as set forth in **Section D - Source Emission Limitations and Testing Requirements** are not exceeded.

Compliance Demonstration Method for a & b:
See **4. Specific Monitoring Requirements a. and b.** and **5. Specific Recordkeeping Requirements a. and b.**

c. To preclude 40 CFR 63, Subpart ZZZZ, the stationary RICE shall meet the definition of an emergency stationary RICE in 40 CFR 63.6675, which includes operating according to the provisions specified in 40 CFR 63.6640(f) [40 CFR 63.6585(f)] and shall not operate for the purpose specified in 40 CFR 63.6640(f)(4)(ii) [40 CFR 63.6585(f)(3)].

Compliance Demonstration Method:
See **4. Specific Monitoring Requirements a.** and **5. Specific Recordkeeping Requirements a.**

2. Emission Limitations:

See **Section D - Source Emission Limitations and Testing Requirements.**

3. Testing Requirements:

Testing shall be conducted at such time as may be requested by the Cabinet [401 KAR 50:045, Section 1].

4. Specific Monitoring Requirements:

a. The permittee shall monitor the hours of operation for each engine on a monthly basis [401 KAR 52:020, Section 10].

b. The permittee shall monitor the amount of diesel fuel combusted (in gallons) of EU 53 and EUs 63-66 on a monthly basis. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the hours of operation for each engine on a monthly and on a consecutive twelve (12) month rolling basis. [401 KAR 52:020, Section 10]

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

b. The permittee shall maintain records of the total amount of diesel fuel consumed by engines no. 53, 63, 64, 65 and 66 on a monthly and on a consecutive twelve (12) month rolling total basis [401 KAR 52:020, Section 10].

6. Specific Reporting Requirements:

See **Section F - Monitoring, Recordkeeping, and Reporting Requirements**

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

Emission Units 60–62, 67, 69, 70, 71, 75-77, 79, 81-1, 81-2, 85, 86, 88, 89, 91-94, 98-101: Twenty-Eight Diesel-Fired Emergency Generators

Description:

Emission Unit	Location	Manufacturer and Model No.	Maximum Engine Rating	Construction Commenced
60 -62	MCHC Plant bldg. 85	Cat. SR4B-GD3516B	3 * 3,286 HP	2007
67	Central Utility Plant bldg. 518	Cat. SR4B-GD3516B	3,286 HP	2009
69	Central Utility Plant bldg. 518	Cat. 3516C-HD	3,634 HP	2017
70-1	Gatton B & E bldg. 34	Onan 300DFCB39471F	762 HP	2015
70-2	Kroger Field Stadium bldg. 222	Kohler 230RE0ZD	755 HP	2015
71-1	Football Training bldg.280	Generac SD0200KG178	320 HP	2015
71-2	KY Proud Baseball Stadium bldg. 682	Kohler 300REOZJ	463 HP	2017
75	Davis Marksbury bldg. 633	Generac SD150	229 HP	2010
76	Parking #2 bldg. 198	Generac SD400	611 HP	2011
77	Wildcat Lodge bldg. 644	Cat. D100-6 305-0477	157 HP	2011
79	Softball Complex Fire Pump	Clarke 8100	64 HP	2013
81-1	Jacobs Science bldg. 174	Cummins 800DQCC	1200 HP	9/1/2016
81-2	Gatton Student Center bldg. 676	Cummins 2500QKAN	3640 HP	11/1/2016
85-1	Samaritan Hospital bldg. 612	Caterpillar C27 750	1125 HP	2009
85-2	Samaritan Hospital bldg. 612	Caterpillar C27 750	1125 HP	2009
86	Rosenberg Law bldg. 48	Cummins DQDAA	464 HP	2019
88	Still bldg. 719	Caterpillar C25	69 HP	6/1/2023
89	Samaritan Hospital bldg. 612	Caterpillar C27	1114 HP	3/1/2023
91	Sanders Brown bldg. 239	Kohler 600REOZVB	903 HP	6/1/2024
92	Pence Hall bldg. 41	Cat. C15D500GC	201 HP	4/1/2025
93	Memorial Coliseum bldg.19	Kohler 500REOZVC	757 HP	2/1/2024
94	Parking #8 bldg. 601	Cat D500 GC	762 HP	2/1/2025
98	Central Heating Plant	Caterpillar C15	670 HP	2/1/2026
99	Ag Research bldg. 364	Caterpillar 3516E	3685 HP	1/1/205

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

100	MD Health Ed bldg. 724	Caterpillar 3512C	2010 HP	1/1/2025
101	Barnhart bldg. 276	Kohler 500REOZVC	757 HP	1/1/2025

APPLICABLE REGULATIONS:

401 KAR 63:002, Section 2(4)(eeee) 40 C.F.R. 63.6580 through 63.6675, Tables 1a to 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

401 KAR 60:005, Section 2(2)(dddd) 40 C.F.R. 60.4200 through 60.4219, Tables 1 to 8 (Subpart IIII), Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

PRECLUDED REGULATION:

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

1. **Operating Limitations:**

   a. The permittee shall meet the requirements of 40 CFR Part 63 by meeting the requirements of 40 CFR 60, Subpart IIII. No further requirements apply under 40 CFR Part 63. [40 CFR 63.6590(c) and (c)(1)]

   b. For EU 60-62 and 67, to preclude the applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality (PSD), emission units combined shall not operate more than 500 hours per year (12 month rolling total) and shall be further restricted such that the total hours operating limit listed in **Section D - Source Emission Limitations and Testing Requirements** for these units is not exceeded. Additionally, the fuel sulfur weight percent shall not exceed 0.3 percent for fuel oil, and the usage rate of fuel oil (12 month rolling total) in all affected facilities shall be restricted so the emission limitations as set forth in **Section D - Source Emission Limitations and Testing Requirements** of this permit are not exceeded.

      Compliance Demonstration Method:
      See **4. Specific Monitoring Requirements c. and d.** and **5. Specific Recordkeeping Requirements c. and d.**

   c. The permittee shall operate the emergency stationary ICE according to the requirements in 40 CFR 60.4211(f)(1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 CFR 60, Subpart IIII, any operation other than emergency operation, maintenance and testing and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 60.4211(f)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in 40 CFR 60.4211(f)(1) through (3), the engine will not be considered an emergency engine under this subpart IIII and shall meet all requirements for non-emergency engines [40 CFR 60.4211(f)].
      i. There is no time limit on the use of emergency stationary ICE in emergency situations [40 CFR 60.4211(f)(1)].

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

ii. The permittee may operate the emergency stationary ICE for the purpose specified in 40 CFR 60.4211(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 60.4211(f)(2). Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year [40 CFR 60.4211(f)(2) and 60.4211(f)(2)(i)].

iii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR 60.4211(f)(2). Except as provided in 40 CFR 60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all the following conditions are met [40 CFR 60.4211(f)(3) and 60.4211(f)(3)(i)]:

1. The engine is dispatched by the local balancing authority or local transmission and distribution system operator [40 CFR 60.4211(f)(3)(i)(A)].

2. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region [40 CFR 60.4211(f)(3)(i)(B)].

3. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines [40 CFR 60.4211(f)(3)(i)(C)].

4. The power is provided only to the facility itself or to support the local transmission and distribution system [40 CFR 60.4211(f)(3)(i)(D)].

5. The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee [40 CFR 60.4211(f)(3)(i)(E)].

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

d. The permittee of an emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, you must install non-resettable hour meters prior to startup of each engine [40 CFR 60.4209(a)].

e. The permittee shall operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's emission-related written instructions, change only those emission-related settings that are permitted by the manufacturer; and meet the requirements of 40 CFR parts 1068, as they apply [40 CFR 60.4211(a)].

f. The permittee shall use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel [40 CFR 60.4207(b

g. The permittee shall operate and maintain the stationary CI ICE such that the emission standards required in 40 CFR 60.4205 are achieved over the entire life of the engine [40 CFR 60.4206].

h. If the engine and control device are not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or emission-related settings are changed in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance according to 40 CFR 60.4211(g)(3) [40 CFR 60.4211(g)].

2. Emission Limitations:

a. The emergency engines maximum engine power greater than 37 KW (50 HP) but less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder shall comply with the Tier 2 or Tier 3 emission standards for new nonroad Cl engines for the same rated power as described in 40 CFR part 1039, Appendix I for all pollutants and the smoke standards as specified in 40 CFR 1039.105 [40 CFR 60.4205(b) referencing 40 CFR 60.4202(a)(2)].

EU #	NMHC+NOx g/KW-hr	CO g/KW-hr	PM g/KW-hr
88	4.7	5.0	0.4
69, 70-1, 70-1, 81-1, 85-1, 85-2, 89, 91, 93, 94, 98, 100, 101	6.4	3.5	0.2
71-1, 71-2, 75, 76, 86, 92	4	3.5	0.2
77	4	5	0.3

The emergency engines maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder shall comply with the Tier 2 emission standards for new nonroad Cl engines for the same rated power as described in 40 CFR

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

part 1039, Appendix I for all pollutants and the smoke standards as specified in 40 CFR 1039.105. [40 CFR 60.4205(b) referencing 40 CFR 60.4202(b)(2)].

EU #	NMHC+NOx g/KW-hr	CO g/KW-hr	PM g/KW-hr
60, 61, 62, 67, 68, 81-2, 99	6.4	3.5	0.2

Compliance Demonstration Method:

i. Compliance shall be demonstrated by purchasing an engine certified to the emissions standards in 40 CFR 60.4205(b), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine shall be installed and configured according to the manufacturer's specifications, except as permitted in 40 CFR 60.4211(g) [40 CFR 60.4211(c)].

ii. Except as permitted under 40 CFR 60.4211(g), the permittee shall operate and maintain the stationary CI ICE and control device according to the manufacturer's written emission-related instructions or procedures developed by the permittee that are approved by the engine manufacturer. In addition, the permittee may only change those settings that are permitted by the manufacturer. The permittee shall also meet the requirements of 40 CFR Parts 1068, as they apply [40 CFR 60.4211(a)].

iii. If the permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or the emission-related settings are changed in a way that is not permitted by the manufacturer, the permittee shall demonstrate compliance by keeping a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action. [40 CFR 60.4211(g)(1)]

b. For EU 79, the permittee shall certify the engine to the emission standards in the table below [40 CFR 60.4205(c) referencing Table 4 to Subpart IIII of Part 60].

NMHC + NOX g/kw-hr (g/hp-hr)	PM g/kw-hr (g/hp-hr)
4.7 (3.5)	0.40 (0.30)

Compliance Demonstration Method:

The permittee shall comply with the emission standards specified in 40 CFR 60.4205(b) by purchasing an engine certified to the emission standards in 40 CFR 60.4205(b) for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications. [40 CFR 60.4211(c)]

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

c. See **Section D - Source Emission Limitations and Testing Requirements**

3. Testing Requirements:

a. Testing shall be conducted at such times as may be required by the Cabinet [401 KAR 50:045, Section 4].

b. If a non-certified engine is purchased or a certified engine and control device not operated and maintained according to the manufacturer's written emission-related instructions, the permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after the permittee changes emission-related settings in a way that is not permitted by the manufacturer. For engines greater than 500 HP, the permittee shall conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards [40 CFR 60.4211(g)].

4. Specific Monitoring Requirements:

a. If the emergency stationary CI internal combustion engine that does not meet the standards applicable to non-emergency engines, then the permittee shall install non-resettable hour meters prior to startup of each engine [40 CFR 60.4209(a)].

b. If the engine is equipped with a diesel particulate filter to comply with the emission standards in 40 CFR 60.4204, the diesel particulate filter shall be installed with a backpressure monitor that notifies the permittee when the high backpressure limit of the engine is approached [40 CFR 60.4209(b)].

c. The permittee shall monitor the hours of operation of each engine on a monthly basis. [401 KAR 52:020, Section 10]

d. The permittee shall monitor the combined hours of operation of EUs 60-62 and EU 67 on a monthly basis. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:

a. If the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee shall record the time of operation of the engine and the reason the engine was in operation during that time [40 CFR 60.4214(b)].

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

b. For engines equipped with a diesel particulate filter, the permittee shall keep records of any corrective action taken after the backpressure monitor has notified the permittee that the high backpressure limit of the engine is approached [40 CFR 60.4214(c)].

c. The permittee shall maintain records of the hours of operation of each engine on a monthly basis. [401 KAR 52:020, Section 10]

d. The permittee shall maintain records of the combined hours of operation of EUs 60-62 and EU 67 on a monthly and 12 month rolling total basis. [401 KAR 52:020, Section 10]

e. The permittee shall maintain records of the manufacturer's certified emissions certificate, manufacturer's written operating instructions, and any procedures developed by the permittee that are approved by the engine manufacturer, over the entire life of the engine [401 KAR 52:020, Section 10].

f. See **Section F - Monitoring, Recordkeeping, and Reporting Requirements**.

6. Specific Reporting Requirements:

a. If the engines operate or are contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in 40 CFR 60.4211(f)(3) the permittee shall submit an annual report according to the following requirements [40 CFR 60.4214(d)].

1. The report shall contain the following information: [40 CFR 60.4214(d)(1)]

i. Company name and address where the engine is located.

ii. Date of the report and beginning and ending dates of the reporting period.

iii. Engine site rating and model year.

iv. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

v. Hours spent for operation for the purposes specified in 40 CFR 60.4211(f)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4211(f)(3)(i). The report shall also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

2. The first annual report shall cover the current calendar year and shall be submitted no later than March 31 of the following calendar year. Subsequent annual reports for each calendar year shall be submitted no later than March 31 of the following calendar year [40 CFR 60.4214(d)(2)].

3. The annual report shall be submitted electronically using the 40 CFR 60 Subpart IIII specific reporting form in the Compliance and Emissions Data Reporting Interface

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

(CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4. Beginning on February 26, 2025, submit annual report electronically according to 40 CFR 60.4214(g) [40 CFR 60.4214(d)(3)].

b. Beginning on February 26, 2025, within 60 days after the date of completing each performance test, you must submit the results following the procedures specified 40 CFR 60.4214(f). Data collected using test methods that are supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert) at the time of the test must be submitted in a file format generated using the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test must be included as an attachment in the ERT or an alternate electronic file [40 CFR 60.4214(f)]

c. If the permittee is required to submit notifications or reports following the procedure specified 40 CFR 60.4214(g), you must submit notifications or reports to the EPA via the Compliance and Emissions Data Reporting Interface (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 you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information in the report or notification, you must submit a complete file in the format specified in this subpart, including information claimed to be CBI, to the EPA following the procedures in 40 CFR 60.4214(g)(1) and (2) [40 CFR 60.4214(g)].

d. See **Section F - Monitoring, Recordkeeping, and Reporting Requirements**.

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

Emission Unit 78: Ten Gas-Fired Emergency Generators

Description:

Emission Unit	Location	Manufacturer and Model	Maximum Engine Rating	Construction Commenced
78-1	M I King bldg 39	Kohler 45R827813413	60 HP	1961
78-3	Terrell (not operative) bldg. 52	Onan 15RJC-4R8/13S	23 HP	1969
78-4	Memorial Hall bldg. 19	Kohler 7.5RMW82	12 HP	1969
78-5	Multi-Disciplinary Research #3 bldg. 216	Onan 45.0EM-15R/13D	68 HP	1971
78-6	Garrigus Bldg. bldg. 215	Kohler 150R0Z-J71	150 HP	1973
78-7	T. H. Morgan Biological bldg 225	Onan 45.0EM-15R/1562D	68 HP	1973
78-8	Oswald bldg.235 (propane)	Onan 55.0-KB-15R/16540S	83 HP	1975
78-9	IRIS bldg.564	Generac SG015-G361	23 HP	2004
78-11	Building 200 bldg. 655	Olympian 96A04626-S	38 HP	1996
78-13	Building 274 (propane)	Onan 12.55C-18R/17637AB	20 HP	Pre 2004

APPLICABLE REGULATIONS:

N/A

PRECLUDED REGULATION:

401 KAR 63:002, Section 2(4)(eeee), 40 C.F.R. 63.6580 through 63.6675, Tables 1a through 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

1. **Operating Limitations:**

   To preclude 40 CFR 63, Subpart ZZZZ, the stationary RICE shall meet the definition of an emergency stationary RICE in 40 CFR 63.6675, which includes operating according to the provisions specified in 40 CFR 63.6640(f) [40 CFR 63.6585(f)] and shall not operate for the purpose specified in 40 CFR 63.6640(f)(4)(ii). [40 CFR 63.6585(f)(3)]

   Compliance Demonstration Method:
   See **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements**.

2. **Emission Limitations:**

   See **Section D - Source Emission Limitations and Testing Requirements**.

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

3. Testing Requirements:

Testing shall be conducted at such time as may be requested by the Cabinet. [401 KAR 50:045, Section 1]

4. Specific Monitoring Requirements:

The permittee shall monitor the hours of operation of each engine on a monthly basis. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the hours of operation for each engine on a monthly basis. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

See **Section F - Monitoring, Recordkeeping, and Reporting Requirements**.

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

Emission Units 72, 80(1-3), and 90 : Five Natural Gas-Fired Emergency Generators

Description:

Emission Unit	Location	Manufacturer and Model	Maximum Engine Rating	Construction Commenced
72	The 90 bldg. 139	Cummins 450GFGA	701 HP	2015
80-1	Building 400 bldg. 657	Generac SG0045	82 HP	2014
80-2	Agronomy Headhouse bldg. 66	Generac SG0050	85 HP	2014
80-3	Arts and Visual bldg. 90	Kohler 150RE2GC	259 HP	2015
90	Gray Design bldg. 101	Generac SG500	729 HP	11/2023

APPLICABLE REGULATIONS:

401 KAR 60:005, Section 2(2)(eeee), 40 C.F.R. 60.4230 through 60.4248, Tables 1 to 4 (Subpart JJJJ), Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

401 KAR 63:002, Section 2(4)(eeee) 40 C.F.R. 63.6580 through 63.6675, Tables 1a to 8, and Appendix A (Subpart ZZZZ), National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

1. **Operating Limitations:**

   a. The permittee shall meet the requirements of 40 CFR Part 63 by meeting the requirements of 40 CFR 60, Subpart JJJJ. No further requirements apply under 40 CFR Part 63 [40 CFR 63.6590(c) and 63.6590(c)(1)].

   a. If the certified stationary SI internal combustion engine and control device are not operated and maintained according to the manufacture's emission-related written instructions, the engine will be considered a non-certified engine, and compliance shall be demonstrated according to 40 CFR 60.4243(a)(2)(i) through (iii), as appropriate [40 CFR 60.4243(a)(2)].

   b. The permittee shall operate the emergency stationary ICE according to the requirements in 40 CFR 60.4243(d)(1) through (3). In order for the engine to be considered an emergency stationary ICE under 40 CFR, 60, Subpart JJJJ, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR 60.4243(d)(1) through (3), is prohibited. If the permittee does not operate the engine according to the requirements in 40 CFR 60.4243(d)(1) through (3), the engine will not be considered an emergency engine under 40 CFR, 60, Subpart JJJJ and must meet all requirements for non-emergency engines [40 CFR 60.4243(d)].

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

i. There is no time limit on the use of emergency stationary ICE in emergency situations [40 CFR 60.4243(d)(1)].

ii. The permittee may operate the emergency stationary ICE for the purpose specified in 40 CFR 60.4243(d)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR 60.4243(d)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR 60.4243(d)(2). Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year [40 CFR 60.4243(d)(2) and 40 CFR 60.4243(d)(2)(i)].

iii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR 60.4243(d)(2). Except as provided in 40 CFR 60.4243(d)(3)(i), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all the following criteria are met [40 CFR 60.4243(d)(3) and 40 CFR 60.4243(d)(3)(i)]:

A. The engine is dispatched by the local balancing authority or local transmission and distribution system operator [40 CFR 60.4243(d)(3)(i)(A)].

B. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region [40 CFR 60.4243(d)(3)(i)(B)].

C. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines [40 CFR 60.4243(d)(3)(i)(C)].

D. The power is provided only to the facility itself or to support the local transmission and distribution system [40 CFR 60.4243(d)(3)(i)(D)].

E. The permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the permittee [40 CFR 60.4243(d)(3)(i)(E)].

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

c. If the certified stationary SI internal combustion engine and control device are not operated and maintained according to the manufacture's emission-related written instructions, the engine will be considered a non-certified engine, and compliance shall be demonstrated according to 40 CFR 60.4243(a)(2)(i) through (iii), as appropriate [40 CFR 60.4243(a)(2)].

d. The permittee may operate the engines using propane for a maximum of 100 hours per year as an alternative fuel solely during emergency operations, but shall keep records of such use [40 CFR 60.4243(e)].

e. Engines equipped with three-way catalysts/non-selective catalytic reduction are expected to use air-to-fuel ratio (AFR) controllers. The AFR controller shall be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40 CFR 60.4243(g)]

2. Emission Limitations:

a. The permittee shall comply with the emission standards in 40 CFR 60, Subpart JJJJ Table 1 [40 CFR 60.4233(d) and (e), Referencing 40 CFR 60, Subpart JJJJ Table 1]:

EU #	NO_x+HC g/HP-hr	NO_x g/HP-hr (ppm @ 15% O_2)	CO g/HP-hr (ppm @ 15% O_2)	VOC g/HP-hr (ppm @ 15% O_2)
72	N/A	2.0 (160)	4.0 (540)	1.0 (86)
80 (80-1)	10	N/A	387	N/A
80 (80-2)	10	N/A	387	N/A
80 (80-3)	N/A	2.0 (160)	4.0 (540)	1.0 (86)
90	N/A	2.0 (160)	4.0 (540)	1.0 (86)

Compliance Demonstration Method:

i. Purchasing an engine certified according to procedures specified in 40 CFR 60, Subpart JJJJ, for the same model year and demonstrating compliance according to one of the methods specified in 40 CFR 60.4243(a) or [40 CFR 60.4243(b)(1)]; or

ii. Purchasing a non-certified engine and demonstrating compliance with the emission standards specified in 40 CFR 60.4233(d) or (e) and according to the requirements specified in 60.4244, as applicable, and according to 40 CFR 60.4243(b)(2)(i) and (ii) [40 CFR 60.4243(b)(2)].

b. The permittee shall operate and maintain the stationary SI ICE such that the emission standards required in 40 CFR 60.4233 are achieved over the entire life of the engine [40 CFR 60.4234].

3. Testing Requirements:

a. Testing shall be conducted at such times as may be required by the Cabinet [401 KAR 50:045, Section 4].

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

b. If propane is used for more than 100 hours per year in an engine that is not certified to the emission standards when using propane, the permittee shall conduct a performance test to demonstrate compliance with the emission standards of 40 CFR 60.4233 [40 CFR 60.4243(e)].

c. If a non-certified engine greater than 25 HP and less than or equal to 500 HP is purchased or a certified engine and control device not operated and maintained according to the manufacturer's written emission-related instructions, the permittee shall perform initial performance testing as indicated in 40 CFR 60.4233. Subsequent performance testing is not required unless the stationary engine is rebuilt or undergoes major repair or maintenance. Engine rebuilding means to overhaul an engine or to otherwise perform extensive service on the engine (or on a portion of the engine or engine system). For the purpose of 40 CFR 60.4243(f), perform extensive service means to disassemble the engine (or portion of the engine or engine system), inspect and/or replace many of the parts, and reassemble the engine (or portion of the engine or engine system) in such a manner that significantly increases the service life of the resultant engine [40 CFR 60.4243 (b)(2)(i) and 40 CFR 60.4243(f)].

d. If a non-certified engine greater than 500 HP is purchased or a certified engine and control device not operated and maintained according to the manufacturer's written emission-related instructions, the permittee shall perform initial performance testing as indicated in 40 CFR 60.4233. In addition, you must conduct an initial performance test within 1 year of engine startup and conduct subsequent performance testing every 8,760 hours or 3 years, whichever comes first, thereafter to demonstrate compliance. [40 CFR 60.4243 (b)(2)(ii)].

e. If the permittee is required to conduct performance testing the permittee shall following the following procedures listed section 40 CFR 60.4244 (a) through (f) [40 CFR 60.4244 (a) through (f)].

f. If the permittee chooses to measure VOC emissions using either Method 18 of 40 CFR part 60, appendix A, or Method 320 of 40 CFR part 63, appendix A, then it has the option of correcting the measured VOC emissions to account for the potential differences in measured values between these methods and Method 25A. The results from Method 18 and Method 320 can be corrected for response factor differences using Equations 4 and 5 of section 40 CFR 60.4244 (g). The corrected VOC concentration can then be placed on a propane basis using Equation 6 of 40 CFR 60.4244 (g) [40 CFR 60.4244(g)].

4. Specific Monitoring Requirements:

a. If the engine does not meet the standards applicable to non-emergency engines, the permittee shall install a non-resettable hour meter on each unit prior to the start-up of the engine [40 CFR 60.4237(a), (b) and (c)].

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

b. The permittee shall monitor the hours of operation of each engine on a monthly basis. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of hours of operation for each engine on a monthly basis. [401 KAR 52:020, Section 10]

b. The permittee shall maintain records of the manufacturer's certified emissions certificate, manufacturer's written operating instructions, and any procedures developed by the permittee that are approved by the engine manufacturer, over the entire life of the engine [401 KAR 52:020, Section 10].

c. The permittee shall keep records of the information listed below [40 CFR 60.4245(a)]:

1. All notifications submitted to comply with 40 CFR 60, Subpart JJJJ and all documentation supporting any notification.

2. Maintenance conducted on the engine.

3. If the stationary SI internal combustion engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.

d. The permittee shall keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation [40 CFR 60.4245(b)].

e. For stationary SI ICE that are subject to performance testing, the permittee shall submit a copy of each performance test as conducted in 40 CFR 60.4244 within 60 days after the test has been completed [40 CFR 60.4245(d)].

f. See **Section F - Monitoring, Recordkeeping, and Reporting Requirements**.

4. **Specific Reporting Requirements:**

a. If the emergency stationary SI ICE has a maximum engine power more than 100 HP and operates for the purpose specified in 40 CFR 60.4243(d)(3)(i), the permittee shall submit an annual report according to the requirements in 40 CFR 60.4245(e)(1) through (3) [40 CFR 60.4245(e)].

1. The report shall contain the following information: [40 CFR 60.4245(e)(1)].

i. Company name and address where the engine is located.

ii. Date of the report and beginning and ending dates of the reporting period.

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

iii. Engine site rating and model year.

iv. Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

v. Hours spent for operation for the purposes specified in 40 CFR 60.4243(d)(3)(i), including the date, start time, and end time for engine operation for the purposes specified in 40 CFR 60.4243(d)(3)(i). The report shall also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

2. The first annual report shall cover the calendar year 2015 and shall be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year shall be submitted no later than March 31 of the following calendar year [40 CFR 60.4245(e)(2).

3. The annual report shall be submitted electronically using the Subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in 40 CFR 60.4. Beginning on February 26, 2025, submit annual report electronically according to 40 CFR 60.4245(g) [40 CFR 60.4245(e)(3)].

b. Beginning on February 26, 2025, within 60 days after the date of completing each performance test, you must submit the results following the procedures specified 40 CFR 60.4245(g). Data collected using test methods that are supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert) at the time of the test must be submitted in a file format generated using the EPA's ERT. Alternatively, you may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website. Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test must be included as an attachment in the ERT or an alternate electronic file [40 CFR 60.4245(f)].

c. If the permittee is required to submit notifications or reports following the procedure specified 40 CFR 60.4245(g), you must submit notifications or reports to the EPA via the Compliance and Emissions Data Reporting Interface (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 you. Do not use CEDRI to submit information you claim as CBI. Although we do not expect persons to assert a claim of CBI, if you wish to assert a CBI claim for some of the information in the report or notification, you must submit a complete file in the

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

format specified in this subpart, including information claimed to be CBI, to the EPA following the procedures in 40 CFR 60.4245(g)(1) and (2) [40 CFR 60.4245(g)].

d. See Section F - Monitoring, Recordkeeping, and Reporting Requirements.

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

Emission Unit EU95 & 96 Gasoline Dispensing Facility

Description:

EU95: Cooling Plant #2 (bldg. 490)
EU96: AG Motor Pool (bldg. 88)
Storage Tank Capacity: 10,000 gal (EU95); 14,000 gal (EU96)

APPLICABLE REGULATIONS:

401 KAR 63:002, Section (2)(4)(ddddd) 40 C.F.R 63.11132, Tables 1 through 3 (Subpart CCCCCC) National Emission Standard for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facility

1. **Operating Limitations:**
   a. The permittee must, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.11115(a)]

   b. The permittee must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following: [40 CFR 63.11116(a) and 40 CFR 63.11117(a)]
      i. Minimize gasoline spills; [40 CFR 63.11116(a)(1)]
      ii. Clean up spills as expeditiously as practicable; [40 CFR 63.11116(a)(2)]
      iii. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; [40 CFR 63.11116(a)(3)]
      iv. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators. [40 CFR 63.11116(a)(4)]
      v. Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with 40 CFR 63.11116(d).

   c. The permittee must have records available within 24 hours of request by the administrator to document your gasoline throughput [40 CFR 63.11116(b)].

   d. For EU96, the permittee must only load gasoline into storage tanks at the facility by utilizing submerged filling, as specified in [40 CFR 63.11117(b ~~a~~)]

   e. For EU96, the permittee must submit the applicable notifications as required under 40 CFR 63.11124(a) [40 CFR 63.11117(e)].

2. **Emission Limitations:**

   N/A

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

3. Testing Requirements:

Testing shall be conducted at such times as may be requested by the Cabinet. [401 KAR 50:045, Section 1]

4. Specific Monitoring Requirements:

The permittee shall monitor the throughput of gasoline (in gallons) on a monthly basis [401 KAR 52:020, Section 10].

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the throughput of gasoline (in gallons) on a monthly basis [401 KAR 52:020, Section 10].

b. The permittee shall keep records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment [40 CFR 63.11125(d)(1)].

c. The permittee shall keep records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation [40 CFR 63.11125(d)(2)].

6. Specific Reporting Requirements:

a. The permittee shall, upon request by the Administrator, demonstrate that their monthly throughput is less than the 10,000-gallon threshold level for EU95 and the 100,000-gallon threshold level for EU96. [40 CFR 63.11111(e)]

b. For EU96, the permittee shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred. [40 CFR 63.11126(b)]

c. See **Section F - Monitoring, Recordkeeping, and Reporting Requirements**.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, 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.

EP	Description	Generally Applicable Regulation
IA01	Fuel Oil Storage Tanks & New fuel oil storage tank located in boiler building will be 30-60 Mgal capacity for Boiler #3	N/A
IA03	Laboratory Fume Hoods	N/A
IA04	TSD Consolidation	N/A
IA05	Transportation Research Center Spray Booth (5gal/yr)	N/A
IA06	Arts and Visual Bldg. Paint Spray Booth (Usage less than 50 gal/yr)	401 KAR 59:010
IA07	TK-76 Fuel oil storage tank (300 gal)	N/A
IA08	Fifty-Seven hot water heaters 8.4 MMBtu/hr combined	N/A
IA09	Four gas-fired space heaters 0.54 MMbtu/hr combined	N/A
IA10	One gas-fired furnace 0.08 MMBtu/hr	N/A
IA11	Seventeen natural gas-fired indirect heat exchangers under or equal to 1 MMBtu/hr each	
IA12	#2 Diesel Fuel Cylinder tank, and vehicle fulling underground (2 tanks)	
IA14	Grain Handling Operations (2.1 tons/hr)	401 KAR 59:010 401 KAR 63:010
IA15	Six 500-Gallon Fermenters	N/A
IA16	Aging Facility (952 bbl/yr)	401 KAR 63:010

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. Particulate matter, sulfur dioxide, nitrogen oxide, and hydrogen chloride emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 CFR Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. To preclude the applicability of 401 KAR 51:017, nitrogen oxide emissions from **emission units 51 and 53** shall not exceed 30 tons in any consecutive twelve months. NOx emissions from these units shall be calculated using the following equation:

   NOx emissions (tons) = [AP-42 emission factor or vendor certified emission factor (lbs/1000 gallons fuel burned or lbs/10^6feet^3 natural gas burned) x fuel burned per month (1000 gallons or 10^6feet^3)/ 2000 lbs/ton.

   To demonstrate compliance with this emission limitation, the total twelve-month rolling NOx emissions from **emission units 51 and 53** shall be calculated monthly and reported semi-annually (see **Section F - Monitoring, Recordkeeping, and Reporting Requirements**) [V-13-024].

4. To preclude the applicability of 401 KAR 51:017, sulfur dioxide emissions from **emission units 51 and 53** shall not exceed 26 tons in any consecutive twelve months. SO_2 emissions from these units shall be calculated using the following equation:

   SO_2 emissions (tons) = [AP-42 emission factor (lbs/1000 gallons fuel burned or lbs/10^6feet^3 natural gas burned) x fuel burned per month (1000 gallons or 10^6feet^3) / 2000 lbs/ton.

   To demonstrate compliance with this emission limitation, the total twelve-month rolling SO_2 emissions from **emission units 51 and 53** shall be calculated monthly and reported semi-annually (see **Section F - Monitoring, Recordkeeping, and Reporting Requirements**) [V-13-024].

5. To preclude the applicability of 401 KAR 51:017, carbon monoxide emissions from **emission units 51 and 53** shall not exceed 32 tons in any consecutive twelve months, and shall be calculated using the following equation:

   CO emissions (tons) = [AP-42 emission factor or vendor certified emission factor (lbs/1000 gallons fuel burned or lbs/10^6feet^3 natural gas burned) x fuel burned per month (1000 gallons or 10^6feet^3) / 2000 lbs/ton.

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

To demonstrate compliance with this emission limitation, the total twelve-month rolling CO emissions from **emission units 51 and 53** shall be calculated monthly and reported semi-annually (see **Section F - Monitoring, Recordkeeping, and Reporting Requirements**) [V-13-024].

6. To preclude the applicability of 401 KAR 51:017, combined nitrogen oxide emissions from **emission units 15, 16, 60, 61, 62, 63, 64, 65, 66, and 67,** shall not exceed 36 tons in any consecutive twelve months. NOx emissions from these units shall be calculated using the following equation:

   NOx emissions (tons) = [(AP-42 emission factor or vendor certified emission factor)(lbs/1000 gallons fuel burned or lbs/10^6feet^3 natural gas burned)] x fuel burned per month(1000 gallons or 10^6feet^3) / 2000 lbs/ton[V-13-024].

   To demonstrate compliance with this nitrogen oxide emission limitation, the total twelve-month rolling NOx emissions from **emission units 15, 16, 60, 61, 62, 63, 64, 65, 66, and 67** shall be calculated monthly and reported semi-annually (see **Section F - Monitoring, Recordkeeping, and Reporting Requirements**) [V-13-024].

7. To preclude the applicability of 401 KAR 51:017, combined sulfur dioxide emissions from **emission units 15, 16, 60, 61, 62, 63, 64, 65, 66, and 67** shall not exceed 36 tons in any consecutive twelve months. SO_2 emissions from these units shall be calculated using the following equation:

   SO_2 emissions (tons) = [AP-42 emission factor (lbs/1000 gallons fuel burned or lbs/10^6feet^3 natural gas burned] x fuel burned per month (1000 gallons or 10^6feet^3) / 2000 lbs/ton.

   To demonstrate compliance with this emission limitation, the total twelve-month rolling SO_2 emissions from **emission units 15, 16, 60, 61, 62, 63, 64, 65, 66, and 67** shall be calculated monthly and reported semi-annually (see **Section F - Monitoring, Recordkeeping, and Reporting Requirements**) [V-13-024].

8. To preclude the applicability of 401 KAR 51:017, carbon monoxide emissions from **emission units 15, 16, 60, 61, 62, 63, 64, 65, 66, and 67** shall not exceed 90 tons in any consecutive twelve months. CO emissions from emission these units shall be calculated using the following equation:

   CO emissions (tons) = [AP-42 emission factor or vendor certified emission factor (lbs/1000 gallons fuel burned or lbs/10^6feet^3 natural gas burned] x fuel burned per month (1000 gallons or 10^6feet^3) / 2000 lbs/ton.

   To demonstrate compliance with this emission limitation, the total twelve-month rolling CO emissions from **emission units 15, 16, 60, 61, 62, 63, 64, 65, 66, and 67** shall be calculated

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

monthly and reported semi-annually (see **Section F - Monitoring, Recordkeeping, and Reporting Requirements**) [V-13-024].

9. To preclude the applicability of 401 KAR 51:017, total combined annual operating hours (12 month rolling total) for **emission units 60, 61, 62, 63, 64, 65, 66, and 67** shall not exceed 1800 hours. To demonstrate compliance with this operating limitation, the permittee shall calculate the total twelve-month rolling hours of operation on a monthly basis [V-13-024].

10. To preclude the applicability of 40 CFR 63, Subpart DDDDD, **source-wide** emissions of Hydrogen Chloride (HCl) (Single Hazardous Air Pollutant (HAP)) shall not exceed 9.0 tons in any consecutive twelve months period. HCl emissions from each coal fired unit shall be calculated using the following equation:

    HCl, Single HAP Emissions (tons) = (Total tons coal burned) x (EF lb/ton)* / (2000 lb/ton)

    *For compliance with the HCl emission limit, an emission factor (EF) listed in Kentucky Emission Inventory System (KyEIS) or the emission factor (EF) resulting from the most recent stack test shall be used and the total twelve-month rolling HCl emissions shall be calculated monthly and reported semi-annually (see **Section F - Monitoring, Recordkeeping, and Reporting Requirements**) [V-13-024].

11. To preclude the applicability of 40 CFR 63, Subpart DDDDD, the permittee shall notify the Division at least thirty (30) days prior to any change in coal supplier, fuel type, or fuel mixture, used in **EU07 and EU08** from those fuels used in the stack tests to establish the HCl emission factor used above for determining compliance. This notification shall include a fuel analysis of the new fuel for Hydrogen Chloride. The Division may request additional stack testing be completed in addition to this fuel analysis [V-13-024].

12. To preclude the applicability of 40 CFR 63 Subpart DDDDD, **source-wide** (including insignificant activities) emissions of Total Hazardous Air Pollutants (HAPs) shall not exceed 22.5 tons in any consecutive twelve months period.

    To demonstrate compliance with this emission limitation, the total twelve-month rolling Total HAPs Emissions, from all units in Section B and C, shall be calculated monthly and reported semi-annually to the Regional Office (see **Section F - Monitoring, Recordkeeping, and Reporting Requirements**) [V-13-024].

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 Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place as defined in this permit, and time of sampling or measurements;
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five (5) years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

3. In accordance with the requirements of 401 KAR 52:020, Section 3(1)h, the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020, Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1, the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.

8. The 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 Title V Permits* incorporated by reference in 401 KAR 52:020, 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 52:020, Title V permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
   a. Identification of the term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

f. The certification shall be submitted by January 30th of each year. Annual compliance certifications shall be sent to the following addresses:

Division for Air Quality Frankfort Regional Office 300 Sower Bolevard Frankfort, KY 40601	U.S. EPA Region 4 Air Enforcement Branch Atlanta Federal Center 61 Forsyth St. SW Atlanta, GA 30303-8960

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within 30 days of the date the Kentucky Emissions Inventory System (KYEIS) emissions survey is mailed to the permittee.

SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

   a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020, 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 termination, revocation and reissuance, revision or denial of a permit [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
      (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
      (2) The Cabinet or the 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;
      (4) New requirements become applicable to a source subject to the Acid Rain Program.

      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- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

   e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:020, 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 52:020, 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-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, 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-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, 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-15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, 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-10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, 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 52:020, Section 11(3) b].

l. This permit does not convey property rights or exclusive privileges [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

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 [401 KAR 52:020, Section 11(3) d.].

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 [401 KAR 52:020, Section 11(3) a.].

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 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of 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 52:020, Section 12].

b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020, Section 8(2)].

3. Permit Revisions

a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the State Implementation Plan (SIP) or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).

b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

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

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction of the equipment described herein, emission units EU88, EU89,

SECTION G - GENERAL PROVISIONS (CONTINUED)

EU90, EU91, EU92, EU93, EU94, EU97, EU98, EU99, EU100, EU101, EU102, EU103, in accordance with the terms and conditions of this permit (V-25-005).

a. Construction of any process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

b. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, notification of the following:
   (1) The date when construction commenced.
   (2) The date of start-up of the affected facilities listed in this permit.
   (3) The date when the maximum production rate specified in the permit application was achieved.

c. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the Cabinet may extend these time periods if the source shows good cause.

d. Pursuant to 401 KAR 50:055, Section 2(1)(a), an owner or operator of any affected facility subject to any standard within the administrative regulations of the Division for Air Quality shall demonstrate compliance with the applicable standard(s) within sixty (60) days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up of such facility. Pursuant to 401 KAR 52:020, Section 3(3)(c), sources that have not demonstrated compliance within the timeframes prescribed in 401 KAR 50:055, Section 2(1)(a), shall operate the affected facility only for purposes of demonstrating compliance unless authorized under an approved compliance plan or an order of the cabinet.

e. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements. Testing must also be conducted in accordance with General Provisions G.5 of this permit.

f. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

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 52:020, Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
      (1) An emergency occurred and the permittee can identify the cause of the emergency;
      (2) The permitted facility was at the time being properly operated;
      (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
      (4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.1-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an

SECTION G - GENERAL PROVISIONS (CONTINUED)

emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.

(5) This requirement does not relieve the source of other local, state or federal notification requirements.

b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].

c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

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 82.155.

(5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156 and 40 CFR 82.157.

(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

N/A

SECTION I - COMPLIANCE SCHEDULE

N/A