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

Final

AIR QUALITY PERMIT

Issued under 401 KAR 52:020

Permittee Name:	**Kentucky Utilities Company**
Mailing Address:	**P.O. Box 32010** **Louisville, KY 40232**
Source Name:	**Kentucky Utilities Company** **(Ghent Generating Station)**
Mailing Address:	**U.S. Highway 42** **Ghent, KY 41045**
Source Location:	**U.S. Highway 42**
Permit:	**V-23-016 R2**
Agency Interest:	**704**
Activity:	**APE20240005**
Review Type:	**Title V, Operating**
Source ID:	**21-041-00010**
Regional Office:	**Florence Regional Office** **8020 Veterans Memorial Drive, Suite 110** **Florence, KY 41042** **(859) 525-4923**
County:	**Carroll**
Application Complete Date:	**May 3, 2019**
Issuance Date:	**May 10, 2024**
Revision Date:	**June 4, 2025**
Expiration Date:	**May 10, 2029**

Rick Shewekah

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

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Permit	Permit Type	Activity#	Complete Date	Issuance Date	Summary of Action
V-23-016	Renewal	APE20170006	5/3/2019	5/10/2024	Title V Renewal
		APE20180001	N/A		
		APE20220004	7/21/2022		
V-23-016 R1	Minor Revision	APE20240002	7/17/2024	10/4/2024	Addition of existing parts washers as EU 46 and IA 43
V-23-016 R2	Minor Revision	APE20240005	2/6/2025	6/4/2025	Addition of EU 47 – CCR Hauling and removal of CCR hauling from insignificant activities

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 Unit 01	**Unit 1 Indirect Heat Exchanger**
Description:	Dry bottom, tangentially fired boiler
Fuel:	Pulverized Coal Number two fuel oil used for startup and stabilization
Maximum Continuous Rating:	5,500 MMBtu/hr
Construction Commenced:	Before August 17, 1971
Controls:	Wet Limestone Forced-Oxidation Sulfur Dioxide Scrubber (WFGD) Low Nitrogen Oxide (NO_x) Burners Selective Catalytic Reduction (SCR) Dry Sorbent injection (DSI) SAM Control DSI or Liquid Hg Control Pulse Jet Fabric Filter
Stack:	EP25 (not shared)

APPLICABLE REGULATIONS:

401 KAR 51:160, *NO_x requirements for large utility and industrial boilers*
401 KAR 51:210, *CAIR NO_x annual trading program*
401 KAR 51:220, *CAIR NO_x ozone season trading program*
401 KAR 51:230, *CAIR SO_2 trading program*
401 KAR 52:060, *Acid rain permits* (See **Section J**)
401 KAR 61:015, *Existing indirect heat exchangers*
401 KAR 63:002, Section 2(4)(yyyy), 40 C.F.R. 63.9980 through 63.10042, Tables 1 through 9, and Appendices A through E (**Subpart UUUUU**), *National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units* (See **Section D**)
40 CFR part 64, *Compliance Assurance Monitoring* (for PM, SO_2, and SAM)
40 CFR part 75, *Continuous Emission Monitoring*
40 CFR 97, Subpart AAAAA, *CSAPR NO_x Annual Trading Program* (See **Section L**)
40 CFR 97, Subpart CCCCC, *CSAPR SO_2 Group 1 Trading Program* (See **Section L**)
40 CFR 97, Subpart EEEEE, *CSAPR NO_x Ozone Season Group 2 Trading Program* (See **Section L**)

APPLICABLE CONSENT DECREE:

Civil Action Number 3:12-cv-00076-GFVT, filed August 21, 2013, terminated September 19, 2018.

1. **Operating Limitations:**
   a. During a startup period or a shutdown period, the permittee shall comply with the work practice standards established in Table 3 of 40 CFR 63, Subpart UUUUU. [401 KAR 61:015, Section 9(2)(b)]

   b. Requirements of 40 CFR 63, Subpart UUUUU are listed in **Section D – Source Emission Limitations and Testing Requirements**.

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

2. Emission Limitations:

a. Particulate matter (PM) emissions shall not exceed 0.127 lb/MMBtu. [401 KAR 61:015, Section 4(1)(a)]

Compliance Demonstration Method:

Compliance with the applicable 401 KAR 61:015 PM emissions limitation shall be demonstrated according to **3. Testing Requirements a.** See also **4. Specific Monitoring Requirements a.**, **5. Specific Recordkeeping Requirements d.** and **e.**, and **6. Specific Reporting Requirements c.**, **d.**, and **e.**

b. Emissions from the stack shall not exceed twenty (20) percent opacity, except that, for [401 KAR 61:015, Section 4(1)(b)]:

i. A maximum of forty percent opacity shall be permissible for not more than one (1) six (6) minute period in any sixty (60) consecutive minutes; and [401 KAR 61:015, Section 4(1)(b)1.]

ii. Emissions 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)(b)3.]

Compliance Demonstration Method:

Compliance with the applicable 401 KAR 61:015 opacity limitations shall be demonstrated according to **3. Testing Requirements g.** and **5. Specific Recordkeeping Requirements b.**

c. Sulfur dioxide (SO_2) emissions shall not exceed 5.67 lb/MMBtu based on a twenty-four (24) hour average. [401 KAR 61:015, Section 5(1)]

Compliance Demonstration Method:

Compliance with the applicable 401 KAR 61:015 SO_2 limitations shall be demonstrated according to **4. Specific Monitoring Requirements c.** and **e.**, **5. Specific Recordkeeping Requirements d.** and **e.**, and **6. Specific Reporting Requirements c.** and **f.**

d. The permittee shall achieve and maintain compliance with a Sulfuric Acid Mist (SAM) emission rate of 5 ppmvd (at 3% O_2). [Civil Action Number 3:12-cv-00076-GFVT, paragraph 20.c.i.]

Compliance Demonstration Method:

Compliance with the consent decree shall be demonstrated by stack testing according to **3. Testing Requirements d.** and **f.** See also **4. Specific Monitoring Requirements i.**, **j.**, and **k.**, **5. Specific Recordkeeping Requirements a.**, **6. Specific Reporting Requirements a.** and **b.**, and **7. Specific Control Equipment Operating Conditions a.**

e. Emission limitations from 40 CFR 63, Subpart UUUUU are listed in **Section D – Source Emission Limitations and Testing Requirements**.

3. Testing Requirements:

a. The permittee shall conduct a performance test for particulate matter (filterable) emissions using U.S. EPA Reference Method 5B, or other method as approved by the Division, by the start of the fourth (4^{th}) year of the term of V-23-016 and every five years thereafter to

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

demonstrate compliance with the applicable standards of the permit. This requirement may be satisfied with the successful completion of testing performed in conjunction with PM CEMS compliance certification/recertification tests when approved by the Division. [401 KAR 50:045, Section 1]

b. The permittee shall perform annual PM CEMS compliance certification/recertification monitor tests to audit the correlation of the reference method mass emissions and the PM CEMS according to the Relative Response Audit (RRA) procedures as described in Procedure 2 of Appendix F to 40 CFR part 60 shall be conducted. A Response Correlation Audit (RCA) shall be conducted every three years per Procedure 2 of Appendix F to 40 CFR part 60. An RCA conducted during the period in which an RRA is required can take the place of the RRA for that period. [401 KAR 52:020, Section 10 and Appendix F to 40 CFR part 60]

c. Performance testing shall be conducted in accordance with 401 KAR 50:045. The testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit. [401 KAR 50:045, Section 1]

d. Compliance with the SAM emission limitation set forth in **2. Emission Limitations d.** shall be determined through annual SAM stack tests conducted pursuant to the most recent procedures set forth in Appendix A of Civil Action Number 3:12-cv-00076-GFVT. Such stack tests shall be conducted under representative unit operating conditions, taking into account fuel sulfur content, load, and other parameters known to impact SAM emissions. [401 KAR 52:020, Section 10]

e. The permittee may petition the EPA to change the annual (SAM) stack test and reporting requirements if they can demonstrate that appropriate continuous emissions devices for SAM are available, but the permittee shall submit SAM emissions control parameters and data on at least an annual basis. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 22.c.]

f. If any of the following events occur at Unit 1, the permittee shall conduct a stack test within 60 days of the relevant change at Unit 1 and use the results of the stack test to adjust, as necessary, the Compliance Assurance Monitoring (CAM)-determined dry sorbent injection (DSI) rates for applicable load ranges for Unit 1:
   i. The monthly average sulfur content of fuel combusted in Unit 1, calculated at the end of any calendar month, is greater than 20% above the highest sulfur content used at Unit 1 during the most recent stack test;
   ii. To the extent that KU reasonably expects any of the following changes to remain in effect for more than 60 days:
      1. The material replacement, or change in design, of SAM emissions control equipment for Unit 1;
      2. A change in the type of fuel combusted in Unit 1 to a fuel not permitted for use in Unit 1 prior to the Date of Entry of the Consent Decree;

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

3. A change in the type of sorbent material used for SAM emission control at Unit 1; or
4. Any other change that KU would reasonably expect to result in an increase in the SAM emission rate prior to adjustment of control parameters.

iii. The permittee may rely on the results of a previously scheduled stack test in lieu of conducting an additional stack test if the previously scheduled stack test will occur during the 60-day period after implementation of the relevant change.

[Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.c.]

g. The permittee shall conduct a performance test using Method 9 of Appendix A-4 of 40 CFR part 60 and the procedures in 40 CFR 60.11. The observation period for Method 9 performance tests may be reduced from 3 hours to 60 minutes if all 6-minutes 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. [401 KAR 52:020, Section 10]

i. Except as provided in 40 CFR 60.45(b)(7)(ii) or (b)(7)(iii), the permittee shall conduct subsequent Method 9 performance tests according to the following schedule, as determined by the most recent Method 9 performance test results:
   1. If no visible emissions are observed, a subsequent Method 9 performance test shall be completed within 12 calendar months from the date that the most recent performance test was conducted.
   2. If visible emissions are observed but the maximum 6-minutes average opacity is less than or equal to 5 percent, a subsequent Method 9 performance test shall be completed within 6 calendar months from the date that the most recent performance test was conducted.
   3. If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 performance test shall be completed within 3 calendar months from the date that the most recent performance test was conducted.
   4. If the maximum 6-minute opacity is greater than 10 percent, a subsequent Method 9 performance test shall be completed within 45 days from the date that the most recent performance test was conducted.

ii. If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 performance test, the permittee may, as an alternative to performing subsequent a Method 9 performance test, elect to perform subsequent monitoring using Method 22 of Appendix A-7 of 40 CFR part 60 according to the following procedures:
   1. The permittee shall conduct 10-minute observations (during normal operation) each operating day the boiler combusts fuel for which an opacity standard is applicable using Method 22 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 observation (i.e., 90 seconds)

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

or conduct a new Method 9 performance test using the procedures in 40 CFR 60.45(b)(7) within 45 calendar days according to the requirements of 40 CFR 60.46(b)(3).

2. 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.

iii. If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 performance test, the permittee may, as an alternative to performing subsequent Method 9 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Division. The observations shall be similar, but not necessarily identical, to the requirements in 40 CFR 60.45(b)(7)(ii).

h. Testing requirements from 40 CFR 63, Subpart UUUUU are listed in **Section D – Source Emission Limitations and Testing Requirements**.

4. Specific Monitoring Requirements:

a. To meet the monitoring requirement for particulate matter, the permittee shall use a particulate matter continuous emissions monitor (PM CEMS). The PM CEMS shall comply with Performance Specification 11 of Appendix B to 40 CFR part 60 and ongoing quality assurance requirements per 40 CFR 60 Appendix F, Procedure 2. [401 KAR 61:005, Section 3(6)]

b. PM CEMS shall be used to satisfy the CAM requirements for PM: [401 KAR 64.3(d)(1)]

i. Excluding exempted time periods, if any three (3) hour average particulate matter values exceed the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and the CEMS and make any repairs or take corrective action(s) as soon as possible.

ii. If five (5) percent or greater of the PM CEMS data recorded in a calendar quarter show excursions above the emission limitation, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate matter standard while operating at representative conditions. The permittee shall submit a compliance test protocol as required by 401 KAR 50:045 before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected or may require stack tests at any time pursuant to 401 KAR 50:045, Performance Tests.

c. CEMS shall be installed, calibrated, maintained, and operated for measuring NO_x, SO_2, and either oxygen or carbon dioxide emissions. [401 KAR 61:005, Section 3 and Performance Specification 2 of Appendix B to 40 CFR part 60 or Appendix A to 40 CFR part 75.]

d. SO_2 CEMS shall be used to satisfy CAM requirements for SO_2. Excluding exempted time periods, if any twenty-four (24)-hour average SO_2 value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedances and the

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

CEMS and make any repairs or take corrective actions as soon as practicable. [40 CFR 64.3(d)(1)]

e. The sulfur content of solid fuel, as burned, shall be determined in percent by weight on a weekly basis. [401 KAR 61:015, Section 6(1)]

f. The rate of each fuel burned shall be measured and recorded daily. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output and the minimum and maximum hourly generation rates shall be measured and recorded daily. Daily and weekly data shall be made available to the Division upon request. Monthly averages shall be included in the semi-annual monitoring reports. [401 KAR 61:015, Section 6(3)]

g. The permittee shall monitor the duration of each startup. [401 KAR 52:020, Section 10]

h. During periods of monitoring system malfunction, a temporary exemption from the monitoring and reporting requirements of 401 KAR 61:005 may be provided pursuant to 401 KAR 50:055 if the source demonstrates that the malfunction was unavoidable and is being repaired as expeditiously as practicable. [401 KAR 61:005, Section 3(4)]

i. The permittee shall implement Compliance Assurance Monitoring (CAM) at EU 01 for SAM emissions based on the most recent CAM plan approved by the Division and as follows: [40 CFR 64.6(a)]

CAM Monitoring Approach for SAM (H_2SO_4 Mist)			
I.	**Indicator**	**SAM Indicative Monitor Output (Primary)**	**DSI Rate (Only applicable if the primary indicator cannot collect accurate data)**
A.	Measurement Approach	SAM Indicative Correlation: Output recorded as hourly averages and reduced to 3-hour rolling averages.	DSI Rate per Gross Generation (MWg) Relationship: DSI rate (lb/hr) monitored continuously; hourly average recorded and reduced to 3-hour rolling averages.
II.	**Indicator Range**	An excursion occurs when any 3-hour rolling average of correlated SAM Indicative Monitor output value exceeds 95% of 5 ppmvd at 3% O_2.	An excursion occurs if the 3-hour rolling average of the DSI rates are below the minimum injection levels determined using operational data gathered during the most recent SAM stack testing.
A.	Corrective Action	In response to an excursion, KU shall: 1) Complete an inspection of the SAM Indicative Monitor system to determine any potential problems with data collection or validation and correct any revealed performance issues in an expedient manner; and 2) Complete an inspection of the DSI system, as necessary, to determine the cause of any injection problems and correct any revealed performance issues in an expedient manner. 3) If corrective actions are not successful in returning the performance indicators to compliant ranges, an additional stack	

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

CAM Monitoring Approach for SAM (H_2SO_4 Mist)			
I.	**Indicator**	**SAM Indicative Monitor Output (Primary)**	**DSI Rate (Only applicable if the primary indicator cannot collect accurate data)**
		test shall be performed to confirm or update the SAM Indicative Monitor correlation and/or DSI per MWg relationships.	
III.	**Performance Criteria**	Installation, calibration, and startup procedures shall be followed in accordance with good engineering practices.	
A.	Data Representativeness	The correlated output at each location will be compared to the emission limitation.	The DSI injection rates will be compared to the minimum injection levels determined from data collected during the most recent SAM stack test.
B.	Verification of Operational Status	Annual SAM stack tests conducted pursuant to the procedures set forth in Appendix A of Civil Action Number 3:12-cv-00076-GFVT.	
C.	QA/QC Practices and Criteria	Calibrate and maintain the SAM Indicative Monitoring System in accordance with good engineering practices.	Calibrate and maintain the DSI system in accordance with good engineering practices.
D.	Monitoring Frequency	Continuous.	
IV.	**Data Collection Procedures**	Data collection system	
V.	**Averaging Period**	1-hour values reduced to 3-hour rolling averages.	
VI.	**Recordkeeping**	Hourly SAM Indicative Monitor output and 3-hour rolling averages of the output; Associated upset conditions and monitoring malfunctions, as applicable.	Hourly DSI rate and 3-hour rolling averages of the DSI rate; Associated upset conditions and monitoring malfunctions, as applicable.
VII	**Reporting**	Excursions and corrective actions shall be included in the semi-annual monitoring reports	A summary of excursions and corrective actions shall be included in the semi-annual monitoring reports.

j. At all times that Unit 1 is in operation, the permittee shall monitor the continuous monitored indication of SAM and the sorbent injection rate for Unit 1 for comparison to the applicable performance indicators determined in the CAM plan for the relevant load. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.d.]

i. Any excursion from the applicable CAM-determined performance indicators shall be addressed through compliance with the response protocols set forth in the CAM plan. Such an excursion shall not be considered a violation subject to stipulated penalties under the Consent Decree, notwithstanding any language in Section IX (Stipulated Penalties) of the Consent Decree. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.d.i.]

ii. Any excursion from the CAM plan shall be subject to the applicable reporting requirements of Section VII of the Consent Decree. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.d.ii.]

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k. The permittee shall monitor the sorbent injection rates and other relevant operating data on a daily basis. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.e.]

l. See **Section D – Source Emission Limitations and Testing Requirements** for additional monitoring requirements from 40 CFR 63, Subpart UUUUU.

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a daily log of the sorbent injection rates and other relevant operating data, including date, average daily unit load (MWg), operating hours for each day, sorbent injection flow rate (gal/min or tons/hr), and sorbent injection density (if injecting liquid sorbent). [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.e.]

b. The permittee shall maintain Method 9 readings in a designated logbook or in electronic format for five (5) years. [401 KAR 52:020, Section 10]

c. The permittee shall record the duration and type (cold, warm, or hot) of each start-up. [401 KAR 52:020, Section 10]

d. The permittee shall maintain a file of all measurements required by 401 KAR 61:015 and summarized monthly. The record of all measurements and summary shall be retained for at least five (5) years following the date of measurements and summaries. [401 KAR 61:015, Section 6(4)]

e. The permittee shall maintain records of the following:
   i. Each fuel analysis;
   ii. The rate of fuel combusted for each fuel type, on a daily basis;
   iii. The heating value (in Btu/lb) and ash content (in percent by weight) of fuel as burned on a weekly basis;
   iv. The average electrical output, the minimum hourly generation rate, and the maximum hourly generation rate on a daily basis;
   v. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted;
   vi. Data collected either by CEMS or as necessary to convert monitoring data to the units of the applicable standard; and
   vii. Results of all compliance tests.
   [401 KAR 61:005, Section 3(15) and 401 KAR 61:015, Section 6]

f. See **Section D – Source Emission Limitations and Testing Requirements** for additional recordkeeping requirements from 40 CFR 63, Subpart UUUUU.

6. Specific Reporting Requirements:

a. Within sixty (60) days of completion of each required SAM stack test, the permittee shall submit to KDAQ for review and approval a revision to its CAM plan that determines average continuous monitored indication of SAM values and minimum sorbent injection rates for applicable load ranges, as provided for in the CAM plan, based on the most recent stack test. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.b.i.]

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

b. If the permittee demonstrates that the CAM-determined minimum sorbent injection rates have remained consistent for five (5) consecutive testing periods, then the permittee may submit to KDAQ for review and approval a revision to its CAM plan that provides for the permittee to thereafter use the previously determined minimum sorbent injection rates without recalculating based on subsequent testing periods. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.b.iii.]

c. The following minimum data requirements shall be maintained and furnished in the format specified by the Division:
   i. The permittee shall submit for every calendar quarter, a report of excess emissions including the nature and cause of the excess emissions, if known; [401 KAR 61:005, Section 3(15)]
   ii. The averaging period used for data reporting shall correspond to the averaging period specified in the emission test method used to determine compliance with an emission standard for the applicable pollutant and source category, and quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter; [401 KAR 61:005, Section 3(15)(a)]
   iii. For gaseous measurements, the summary shall consist of hourly averages expressed in the units of the applicable standard; [401 KAR 61:005, Section 3(15)(d)]
   iv. Except for zero and span checks, the date and time of each period during which the CEMS was not operating, including proof of CEMS performance during system repairs and the nature of the repairs or adjustments; and [401 KAR 61:005, Section 3(15)(e)]
   v. If excess emissions have not occurred and the CEMS have not been inoperative, repaired, or adjusted, this information shall be included in the report. [401 KAR 61:005, Section 3(15)(f)]

d. For PM measurements, the report summary shall consist of the magnitude in actual pounds per million Btu (lb/MMBtu) of any rolling three (3)-hour average for PM greater than the applicable standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four (4) equally spaced, instantaneous PM measurements per hour. Any time period exempted shall be considered before determining the excess average of PM. [401 KAR 52:020, Section 10; 401 KAR 61:005, Section 3(15); and 40 CFR 64.9]

e. In regard to PM excursions, the permittee shall report the following each calendar quarter: [401 KAR 52:020, Section 10; 401 KAR 61:005, Section 3(15); and 40 CFR 64.9]
   i. Number of excursions (excluding exempted time periods) above the PM standard;
   ii. Date and time of excursions;
   iii. Cause of excursions;
   iv. PM value of the excursions (in lb/MMBtu);
   v. Percentage of the PM-CEMS data showing excursions above the applicable standard; and
   vi. Any corrective actions taken.

f. In regard to SO_2 excursions, the permittee shall report the following each calendar quarter: [401 KAR 52:020, Section 10; 401 KAR 61:005, Section 3(15); and 40 CFR 64.9]

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

i. Number of excursions (excluding exempted time periods) above the SO_2 standard;
ii. Date and time of excursions;
iii. Cause of excursions;
iv. SO_2 value of the excursions (in lb/MMBtu);
v. Percentage of the SO_2 CEMS data showing excursions above the applicable standard; and
vi. Any corrective actions taken.

g. For exceedances that occur as a result of start-up, the permittee shall report the type of start-up (cold, warm, or hot) and whether or not the duration of the start-up exceeded the manufacturer's recommended or typical historic durations, and if so, an explanation of how the start-up exceeded recommended or typical durations. [401 KAR 52:020, Section 10]

h. See **Section D – Source Emission Limitations and Testing Requirements** for additional reporting requirements from 40 CFR 63, Subpart UUUUU.

7. Specific Control Equipment Operating Conditions:

a. The permittee shall continuously operate the existing SAM controls at Ghent Station Unit 1 [Civil Action Number 3:12-cv-00076-GFVT, paragraph 19]. The permittee shall continuously operate enhanced sorbent injection controls to reduce SAM emissions with the goal of achieving a SAM emission rate of no greater than 5 ppmvd (at 3% O_2) for this unit [Civil Action Number 3:12-cv-00076-GFVT, paragraph 20.a].

Compliance Demonstration Method:

Compliance with the consent decree shall be demonstrated according to **4. Specific Monitoring Requirements j.** and **k.** and **5. Specific Recordkeeping Requirements a.**

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

c. See **Section E – Source Control Equipment Requirements** for additional requirements.

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

Emission Unit 02	**Unit 2 Indirect Heat Exchanger**
Description:	Dry bottom, tangentially fired boiler
Fuel:	Pulverized Coal
	Number two fuel oil used for startups and stabilization
Maximum Continuous Rating:	5,500 MMBtu/hr
Construction Commenced:	Prior to September 18, 1978 and After August 17, 1971
Controls:	Low NO_x Burners
	Wet Limestone Forced-Oxidation SO_2 Scrubber (WFGD)
	Dry Sorbent Injection (DSI) SAM Control
	DSI or Liquid Hg Control
	Pulse-Jet Fabric Filter
Stack:	EP03 (Shared with EU 03)

APPLICABLE REGULATIONS:

401 KAR 51:160, *NO_x requirements for large utility and industrial boilers*
401 KAR 51:210, *CAIR NO_x annual trading program*
401 KAR 51:220, *CAIR NO_x ozone season trading program*
401 KAR 51:230, *CAIR SO_2 trading program*
401 KAR 52:060, *Acid rain permits* (See **Section J**)
401 KAR 59:015, *New indirect heat exchangers*
401 KAR 60:005, Section 2(2)(a), 40 C.F.R. 60.40 through 60.46 (**Subpart D**), *Standards of Performance for Fossil-Fuel-Fired Steam Generators*
401 KAR 63:002, Section 2(4)(yyyy), 40 C.F.R. 63.9980 through 63.10042, Tables 1 through 9, and Appendices A through E (**Subpart UUUUU**), *National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units* (See **Section D)**
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40 CFR part 75, *Continuous Emission Monitoring*
40 CFR 97, Subpart AAAAA, *CSAPR NO_x Annual Trading Program* (See **Section L**)
40 CFR 97, Subpart CCCCC, *CSAPR SO_2 Group 1 Trading Program* (See **Section L**)
40 CFR 97, Subpart EEEEE, *CSAPR NO_x Ozone Season Group 2 Trading Program* (See **Section L**)

APPLICABLE CONSENT DECREE:

Civil Action Number 3:12-cv-00076-GFVT, filed August 21, 2013, terminated September 19, 2018.

1. **Operating Limitations:**
   a. During a startup period or a shutdown period, the permittee shall comply with the work practice standards established in Table 3 of 40 CFR 63, Subpart UUUUU. [401 KAR 59:015, Section 7(2)(b)]

   b. Requirements of 40 CFR 63, Subpart UUUUU are listed in **Section D – Source Emission Limitations and Testing Requirements**.

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

2. Emission Limitations:

a. PM emissions shall not exceed 0.10 lb/MMBtu heat input, based on the arithmetic average of all operating one-hour periods in any boiler operating day. [40 CFR 60.42(a)(1) and 40 CFR 60.45(g)(4)]

Compliance Demonstration Method:

Compliance with the applicable 40 CFR 60, Subpart D PM emission limitation shall be demonstrated according to **3. Testing Requirements a.** See also **4. Specific Monitoring Requirements d.**, **5. Specific Recordkeeping Requirements c.**, **6. Specific Reporting Requirements c.** and **d.**, and **7. Specific Control Equipment Operating Conditions b.**

b. Emissions from the stack shall not exceed 20 percent opacity except for one six-minute period per hour of not more than 27 percent opacity. [40 CFR 60.42(a)(2)]

Compliance Demonstration Method:

Compliance with the applicable 40 CFR 60, Subpart D opacity standard shall be demonstrated according to **3. Testing Requirements g.** for affected facilities that elect to not use a COMS under 40 CFR 60.45(b)(5); A COMS is not required for affected facilities using a PM CEMS [40 CFR 60.45(b)(5)]. See also **5. Specific Recordkeeping Requirements d.**, and **7. Specific Control Equipment Operating Conditions b.**

c. SO_2 emissions shall not exceed 1.2 lb/MMBtu heat input, based on the arithmetic average of three contiguous one-hour periods. [40 CFR 60.43(a)(2)]

Compliance Demonstration Method:

Compliance with the applicable 40 CFR 60, Subpart D SO_2 emission limitation shall be demonstrated according to **4. Specific Monitoring Requirements b.** and **c.**, **6. Specific Reporting Requirements c.**, and **7. Specific Control Equipment Operating Conditions b.**

d. Nitrogen oxides (NO_x) emissions shall not exceed 0.70 lb/MMBtu heat input, based on the arithmetic average of three contiguous one-hour periods. [40 CFR 60.44(a)(3)]

Compliance Demonstration Method:

Compliance with the applicable 40 CFR 60, Subpart D NO_x emission limitation shall be demonstrated according to **4. Specific Monitoring Requirements b.** and **c.**, **5. Specific Recordkeeping Requirements c.**, **6. Specific Reporting Requirements c.**, and **7. Specific Control Equipment Operating Conditions b.**

e. The permittee shall achieve and maintain compliance with a SAM emission rate of 4 ppmvd at 3% O_2) [Civil Action Number 3:12-cv-00076-GFVT, paragraph 21.c.]. If the permittee installs SCR in order to control emissions of NO_x, KU shall achieve and maintain compliance with a permanent SAM emission rate of 5 ppmvd (at 3% O_2) following commencement of operation of the SCR [Civil Action Number 3:12-cv-00076-GFVT, paragraph 21.d.].

Compliance Demonstration Method:

Compliance with the Consent Decree's SAM emission limitations shall be demonstrated according to **3. Testing Requirements d.** and **f.**, **4. Specific Monitoring Requirements f.** and **g.**, **5. Specific Recordkeeping Requirements a.**, **6. Specific Reporting Requirements a.** and **b.**, and **7. Specific Control Equipment Operating Conditions a.**

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

f. Emission limitations from 40 CFR 63, Subpart UUUU are listed in **Section D – Source Emission Limitations and Testing Requirements**.

3. Testing Requirements:

a. The permittee shall conduct a performance test for PM (filterable) emissions from the shared stack using U.S. EPA Reference Method 5B, or other method as approved by the Division, by the start of the fourth (4^{th}) year of the term of V-23-016 and every five years thereafter to demonstrate compliance with the applicable standards of the permit. This requirement may be satisfied with the successful completion of testing performed in conjunction with PM CEMS compliance certification/recertification tests when approved by the Division. [401 KAR 50:045, Section 1]

b. Annual PM CEMS compliance certification/recertification monitor tests to audit the correlation of the reference method mass emissions and the PM CEMS according to the Relative Response Audit (RRA) procedures as described in Procedure 2 of Appendix F to 40 CFR part 60 shall be conducted. A Response Correlation Audit (RCA) shall be conducted every three years per Procedure 2 of Appendix F to 40 CFR part 60. An RCA conducted during the period in which an RRA is required can take the place of the RRA for that period. The shared stack includes emissions from both EU 02 and EU 03 (Units 2 and 3). [401 KAR 52:020, Section 10 and Appendix F to 40 CFR part 60]

c. Performance testing shall be conducted in accordance with 40 CFR 60.46, 401 KAR 50:045 and pursuant to 40 CFR 64.4(c)(1). The testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit. [401 KAR 50:045, Section 1]

d. Compliance with the SAM emission rate set forth in **2. Emission Limitations e.** shall be determined through the use of stack tests conducted pursuant to the SAM compliance demonstration procedures set forth in Appendix A to Civil Action Number 3:12-cv-00076-GFVT. Such stack tests shall be conducted under representative unit operating conditions, taking into account fuel sulfur content, load, and other parameters known to impact SAM emissions. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 22.a. and 22.b.]

e. The permittee may petition the EPA to change the annual (SAM) stack test and reporting requirements if they can demonstrate that appropriate continuous emissions devices for SAM are available, but the permittee shall submit SAM emissions control parameters and data on at least an annual basis. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 22.c.]

f. If any of the following events occur at Unit 2, the permittee shall conduct a SAM stack test within 60 days of the relevant change at Unit 2 and use the results of the stack test to adjust, as necessary, the CAM-determined DSI rates for the applicable load ranges for Unit 2: [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.c.]
   i. The monthly average sulfur content of fuel combusted in Unit 2, calculated at the end of any calendar month, is greater than 20% above the highest sulfur content used at Unit 2 during the most recent stack test; or

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

ii. To the extent that the permittee reasonably expects any of the following changes to remain in effect for more than 60 days:
   1. The material placement, or change in design, of SAM emission control equipment at Unit 2.
   2. A change in the type of fuel used at Unit 2 to a fuel not permitted for use prior to the date of entry of the Consent Decree.
   3. A change in the type of sorbent material used for SAM emission control.
   4. Any other change that the permittee would reasonably expect to result in an increase in the SAM emission rate prior to adjustment of control parameters.

iii. The permittee may rely on the results of a previously scheduled stack test in lieu of conducting an additional stack test if the previously scheduled stack test will occur during the 60-day period after implementation of the relevant change.

g. The permittee shall conduct a performance test using Method 9 of Appendix A-4 of 40 CFR part 60 and the procedures in 40 CFR 60.11. The observation period for Method 9 performance tests may be reduced from 3 hours to 60 minutes if all 6-minutes 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 60.45(b)(7)]

i. Except as provided in 40 CFR 60.45(b)(7)(ii) or (b)(7)(iii), the permittee shall conduct subsequent Method 9 performance tests according to the following schedule, as determined by the most recent Method 9 performance test results: [40 CFR60.45(b)(7)(i)]
   1. If no visible emissions are observed, a subsequent Method 9 performance test shall be completed within 12 calendar months from the date that the most recent performance test was conducted. [40 CFR 60.45(b)(7)(i)(A)]
   2. If visible emissions are observed but the maximum 6-minutes average opacity is less than or equal to 5 percent, a subsequent Method 9 performance test shall be completed within 6 calendar months from the date that the most recent performance test was conducted. [40 CFR 60.45(b)(7)(i)(B)]
   3. If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 performance test shall be completed within 3 calendar months from the date that the most recent performance test was conducted. [40 CFR 60.45(b)(7)(i)(C)]
   4. If the maximum 6-minute opacity is greater than 10 percent, a subsequent Method 9 performance test shall be completed within 45 days from the date that the most recent performance test was conducted. [40 CFR 60.45(b)(7)(i)(D)]

ii. If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 performance test, the permittee may, as an alternative to performing subsequent a Method 9 performance test, elect to perform subsequent monitoring using Method 22 of Appendix A-7 of 40 CFR part 60 according to the following procedures: [40 CFR 60.45(b)(7)(ii)]
   1. The permittee shall conduct 10-minute observations (during normal operation) each operating day the boiler combusts fuel for which an opacity standard is applicable using Method 22 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-

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

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 observation (i.e., 90 seconds) or conduct a new Method 9 performance test using the procedures in 40 CFR 60.45(b)(7) within 45 calendar days according to the requirements of 40 CFR 60.46(b)(3) [40 CFR 60.45(b)(7)(ii)(A)]

2. 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.

iii. If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 performance test, the permittee may, as an alternative to performing subsequent Method 9 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Division. The observations shall be similar, but not necessarily identical, to the requirements in 40 CFR 60.45(b)(7)(ii). [40 CFR 60.45(b)(7)(iii)]

h. Testing requirements from 40 CFR 63, Subpart UUUUU are listed in **Section D – Source Emission Limitations and Testing Requirements**.

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

a. The permittee shall monitor the duration of each start-up. [401 KAR 52:020, Section 10]

b. The permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring SO_2 emissions, NO_x emissions, and either oxygen (O_2) or carbon dioxide (CO_2) [40 CFR 60.45(a)] from the shared stack of EUs 02 and 03. The conversion procedures of 40 CFR 60.45(e) shall be used to convert the continuous monitoring data into units of the applicable standard (lb/MMBtu) [40 CFR 60.45(e)].

c. For performance evaluations under 40 CFR 60.13(c) and calibration checks under 40 CFR 60.13(d), the following procedures shall be used: [40 CFR 60.45(c)]

i. Methods 6, 7, and 3B of Appendix A of 40 CFR part 60, as applicable, shall be used for the performance evaluations of SO_2 and NOx continuous monitoring systems. Acceptable alternative methods for Methods 6, 7, and 3B are given in 40 CFR 60.46(d). [40 CFR 60.45(c)(1)]

ii. SO_2 and NO_x, as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B to 40 CFR part 60. [40 CFR 60.45(c)(2)]

iii. For a continuous monitoring system measuring SO_2 or NO_x the span value shall be determined using one of the procedures from 40 CFR 60.45(c)(3)(i) and (ii). [40 CFR 60.45(c)(3)]

d. The permittee shall install, calibrate, maintain, and operate a CEMS for measuring PM emissions. The PM CEMS shall comply with Appendix B to 40 CFR part 60 [401 KAR

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

59:005, Section 4(1)]. The permittee shall follow the most current applicable compliance and monitoring provisions in 40 CFR 60.48Da and 60.49Da of 40 CFR 60, Subpart Da, which includes Procedure 2 in Appendix F to 40 CFR part 60 [40 CFR 60.45(g)(4)].

e. CEMS shall be used to satisfy the CAM requirements for PM & SO_2. When CEMS data shows excess emissions as defined in **6. Specific Reporting Requirements c.**, the permittee shall, as appropriate, initiate an investigation of the cause and take any corrective action as soon as practicable. [40 CFR 64.3(d)(1)]

f. The permittee shall implement CAM for SAM emissions at Unit 2 based on the most recent CAM plan approved by the Division and as follows: [40 CFR 64.2]

CAM Monitoring Approach for SAM (H_2SO_4 Mist)			
I.	**Indicator**	**SAM Indicative Monitor Output (Primary)**	**DSI Rate (Only applicable if the primary indicator cannot collect accurate data)**
A.	Measurement Approach	SAM Indicative Correlation: Output recorded as hourly averages and reduced to 3-hour rolling averages.	DSI Rate per Gross Generation (MWg) Relationship: DSI rate (lb/hr) monitored continuously; hourly average recorded and reduced to 3-hour rolling averages.
II.	**Indicator Range**	An excursion occurs when any 3-hour rolling average of correlated SAM Indicative Monitor output value exceeds 95% of 4 ppmvd at 3% O_2.	An excursion occurs if the 3-hour rolling average of the DSI rates are below the minimum injection levels determined using operational data gathered during the most recent SAM stack testing.
A.	Corrective Action	In response to an excursion, KU shall: 1) Complete an inspection of the SAM Indicative Monitor system to determine any potential problems with data collection or validation and correct any revealed performance issues in an expedient manner; and 2) Complete an inspection of the DSI system, as necessary, to determine the cause of any injection problems and correct any revealed performance issues in an expedient manner. 3) If corrective actions are not successful in returning the performance indicators to compliant ranges, an additional stack test shall be performed to confirm or update the SAM Indicative Monitor correlation and/or DSI per MWg relationships.	
III.	**Performance Criteria**	Installation, calibration, and startup procedures shall be followed in accordance with good engineering practices.	
A.	Data Representativeness	The correlated output at each location will be compared to the emission limitation.	The DSI injection rates will be compared to the minimum injection levels determined from data collected during the most recent SAM stack test.
B.	Verification of Operational Status	Annual SAM stack tests conducted pursuant to the procedures set forth in Appendix A of Civil Action Number 3:12-cv-00076-GFVT.	

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

CAM Monitoring Approach for SAM (H_2SO_4 Mist)			
I.	**Indicator**	**SAM Indicative Monitor Output (Primary)**	**DSI Rate (Only applicable if the primary indicator cannot collect accurate data)**
C.	QA/QC Practices and Criteria	Calibrate and maintain the SAM Indicative Monitoring System in accordance with good engineering practices.	Calibrate and maintain the DSI system in accordance with good engineering practices.
D.	Monitoring Frequency	Continuous.	
IV.	**Data Collection Procedures**	Data collection system	
V.	**Averaging Period**	1-hour values reduced to 3-hour rolling averages.	
VI.	**Recordkeeping**	Hourly SAM Indicative Monitor output and 3-hour rolling averages of the output; Associated upset conditions and monitoring malfunctions, as applicable.	Hourly DSI rate and 3-hour rolling averages of the DSI rate; Associated upset conditions and monitoring malfunctions, as applicable.
VII	**Reporting**	Excursions and corrective actions shall be included in the semi-annual monitoring reports	A summary of excursions and corrective actions shall be included in the semi-annual monitoring reports.

g. At all times that Unit 2 is in operation, the permittee shall monitor the continuous monitored indication of SAM and the DSI rate for Unit 2 for comparison to the applicable performance indicators determined in the CAM plan for the relevant load.
   i. Any excursion from the applicable CAM-determined performance indicators shall be addressed through compliance with response protocols set forth in the CAM plan. Such excursions shall not be considered a violation subject to stipulated penalties under the Consent Decree, notwithstanding any language in Section IX (Stipulated Penalties) of Civil Action Number 3:12-cv-00076-GFVT.
   ii. Any excursion from the CAM plan shall be subject to the applicable reporting requirements of Section VII of the Consent Decree.

   [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.d.]

h. See **Section D – Source Emission Limitations and Testing Requirements** for additional monitoring requirements from 40 CFR 63, Subpart UUUUU.

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a daily log of the sorbent injection rates and other relevant operating data, including date, average daily unit load (MWg), operating hour for each day, sorbent inject flow rate (gal/min or tons/hr), and sorbent injection density (if injecting liquid sorbent). [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.e.]

b. The permittee shall record the duration and type (cold, warm, or hot) of each start-up. [401 KAR 52:020, Section 10]

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

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

i. Each fuel analysis;
ii. The rate of fuel combusted for each fuel type, on a daily basis;
iii. The heating value (in Btu/lb) and ash content (in percent by weight) of fuel as burned on a weekly basis;
iv. The average electrical output, the minimum hourly generation rate, and the maximum hourly generation rate on a daily basis;
v. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted;
vi. Data collected either by CEMS or as necessary to convert monitoring data to the units of the applicable standard; and
vii. Results of all compliance tests.

d. The permittee shall maintain records according to the following requirements, applicable to the visible emissions monitoring method used: [40 CFR 60.45(h)]
   i. For each performance test conducted using Method 9 of Appendix A-4 of 40 CFR part 60, the permittee shall maintain the records, including the following information:
      1. Dates and time intervals of all opacity observation periods;
      2. Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and
      3. Copies of all visible emission observer opacity field data sheets.
   ii. For each performance test conducted using Method 22 of Appendix A-4 of 40 CFR part 60, the permittee shall maintain the records including the following information:
      1. Dates and time intervals of all visible emissions observation periods;
      2. Name and affiliation for each visible emission observer participating in the performance test;
      3. Copies of all visible emission observer opacity field data sheets; and
      4. Documentation of any adjustments made and the time the adjustments were completed to the Unit 2 operation by the permittee to demonstrate compliance with the applicable monitoring requirements.
   iii. 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 Division.

e. See **Section D – Source Emission Limitations and Testing Requirements** for additional recordkeeping requirements from 40 CFR 63, Subpart UUUUU.

6. Specific Reporting Requirements:

a. Within 60 days of completion of each SAM stack test for Unit 2, the permittee shall submit to the Division for review and approval, a revision to its CAM plan that determines average continuous monitored indication of SAM values and minimum sorbent injection rates for applicable load ranges, as provided for in the CAM plan, based on the most recent stack test for Unit 2. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.b.ii.]

b. If the permittee demonstrates that the CAM-determined sorbent injection rates have remained consistent for five (5) consecutive testing periods, the permittee may submit to the Division for review and approval, a revision to its CAM plan that provides for the

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

permittee to thereafter use the previously determined minimum sorbent injection rates without recalculating based on subsequent testing periods. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.b.iii.]

c. Excess emission and monitoring system performance reports shall be submitted to the Division semiannually. Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows: [40 CFR 60.45(g)]
   i. SO_2. Excess emissions are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of SO_2 as measured by a CEMS exceed the applicable standard in 2. Emission Limitations c.
   ii. NO_x. Excess emissions are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards in **2. Emission Limitations d.**
   iii. PM. Excess emissions are defined as any boiler operating day period during which the average emissions (arithmetic average of all operating one-hour periods) exceed the applicable standards in **2. Emission Limitations a.**

d. Each excess emission and monitoring system performance report shall include the following information: [40 CFR 60.45(g) referencing 40 CFR 60.7(c)]
   i. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period
   ii. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of Unit 2. The nature and cause of any malfunction (if known), the corrective action taken, or preventative measures adopted.
   iii. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
   iv. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

e. For exceedances that occur as a result of a start-up, the permittee shall report the type of start-up (cold, warm, or hot), whether or not the duration of the start-up exceeded the manufacturer's recommendation or typical, historical durations, and if so, an explanation of how the start-up exceeded recommended or typical durations. [401 KAR 52:020, Section 10]

f. See **Section D – Source Emission Limitations and Testing Requirements** for 40 CFR 63, Subpart UUUUU reporting requirements.

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

7. Specific Control Equipment Operating Conditions:

a. The permittee shall continuously operate the existing SAM controls [Civil Action Number 3:12-cv-00076-GFVT, paragraph 19.]. The permittee shall continuously operate the dry sorbent SAM emission control system at Unit 2 to reduce SAM emissions to achieve a SAM emissions rate of no greater than 4 ppmvd (at 3% O_2) [Civil Action Number 3:12-cv-00076-GFVT, paragraph 21.b.].

Compliance Demonstration Method:

Compliance with the consent decree shall be demonstrated according to **4. Specific Monitoring Requirements f.** and **g.**, **5. Specific Recordkeeping Requirements a.**, and **6. Specific Reporting Requirements a.** and **b.**

b. Records regarding the maintenance of the pollution control devices shall be maintained. [401 KAR 52:020, Section 10 and 40 CFR 63.10032]

c. See **Section E – Source Control Equipment Requirements** for additional requirements.

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

Emission Unit 03	**Unit 3 Indirect Heat Exchanger**
Description:	Dry bottom, wall-fired boiler
Fuel:	Pulverized Coal
	Number two fuel oil used for startup and stabilization
Maximum Continuous Rating:	5,500 MMBtu/hr
Construction Commenced:	Prior to September 18, 1978 and After August 17, 1971
Controls:	Low NO_x Burners with Overfire Air
	Selective Catalytic Reduction (SCR)
	Wet Limestone Forced-Oxidation SO_2 Scrubber (WFGD)
	Dry Sorbent Injection (DSI) SAM Control
	DSI or Liquid Hg Control
	Pulse-Jet Fabric Filter
Stack:	EP03 (Shared with EU02)

APPLICABLE REGULATIONS:

401 KAR 51:160, *NO_x requirements for large utility and industrial boilers*

401 KAR 51:210, *CAIR NO_x annual trading program*

401 KAR 51:220, *CAIR NO_x ozone season trading program*

401 KAR 51:230, *CAIR SO_2 trading program*

401 KAR 52:060, *Acid rain permits* (See **Section J**)

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

401 KAR 60:005, Section 2(2)(a), 40 C.F.R. 60.40 through 60.46 (**Subpart D**), *Standards of Performance for Fossil-Fuel-Fired Steam Generators*

401 KAR 63:002, Section 2(4)(yyyy), 40 C.F.R. 63.9980 through 63.10042, Tables 1 through 9, and Appendices A through E (**Subpart UUUUU**), *National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units* (See **Section D**)

40 CFR part 64, *Compliance Assurance Monitoring* (for PM, SO_2, NO_x and SAM)

40 CFR part 75, *Continuous Emission Monitoring*

40 CFR 97, Subpart AAAAA, *CSAPR NO_x Annual Trading Program* (See **Section L**)

40 CFR 97, Subpart CCCCC, *CSAPR SO_2 Group 1 Trading Program* (See **Section L**)

40 CFR 97, Subpart EEEEE, *CSAPR NO_x Ozone Season Group 2 Trading Program* (See **Section L**)

APPLICABLE CONSENT DECREE:

Civil Action Number 3:12-cv-00076-GFVT, filed August 21, 2013, terminated September 19, 2018.

1. **Operating Limitations:**
   a. During a startup period or a shutdown period, the permittee shall comply with the work practice standards established in Table 3 of 40 CFR 63, Subpart UUUUU. [401 KAR 59:015, Section 7(2)(b)]

   b. Requirements of 40 CFR 63, Subpart UUUUU are listed in **Section D – Source Emission Limitations and Testing Requirements**.

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

2. Emission Limitations:

a. PM emissions shall not exceed 0.10 lb/MMBtu heat input, based on the arithmetic average of all operating one-hour periods in any boiler operating day. [40 CFR 60.42(a)(1) and 40 CFR 60.45(g)(4)]

Compliance Demonstration Method:

Compliance with the applicable 40 CFR 60, Subpart D PM emission limitation shall be demonstrated according to **3. Testing Requirements a.** See also **4. Specific Monitoring Requirements d.**, **5. Specific Recordkeeping Requirements c.**, **6. Specific Reporting Requirements c.** and **d.**, and **7. Specific Control Equipment Operating Conditions b.**

b. Emissions from the stack shall not exceed 20 percent opacity except for one six-minute period per hour of not more than 27 percent opacity. [40 CFR 60.42(a)(2)]

Compliance Demonstration Method:

Compliance with the applicable 40 CFR 60, Subpart D opacity standard shall be demonstrated according to **3. Testing Requirements g.** for affected facilities that elect to not use a COMS under 40 CFR 60.45(b)(5); A COMS is not required for affected facilities using a PM CEMS [40 CFR 60.45(b)(5)]. See also **5. Specific Recordkeeping Requirements c.** and **d.**, **6. Specific Reporting Requirements d.**, and **7. Specific Control Equipment Operating Conditions b.**

c. Sulfur dioxide (SO_2) emissions shall not exceed 1.2 lb/MMBtu heat input, based on the arithmetic average of three contiguous one-hour periods. [40 CFR 60.43(a)(2)]

Compliance Demonstration Method:

Compliance with the applicable 40 CFR 60, Subpart D SO_2 emission limitations shall be demonstrated according to **4. Specific Monitoring Requirements b.** and **c.**, **5. Specific Recordkeeping Requirements c.**, **6. Specific Reporting Requirements c.** and **d.**, and **7. Specific Control Equipment Operating Conditions b.**

d. Nitrogen oxides (NO_x) emissions shall not exceed 0.70 lb/MMBtu heat input, based on the arithmetic average of three contiguous one-hour periods. [40 CFR 60.44(a)(3)]

Compliance Demonstration Method:

Compliance with the applicable 40 CFR 60, Subpart D NO_x emission limitation shall be demonstrated according to **4. Specific Monitoring Requirements b.** and **c.**, **5. Specific Recordkeeping Requirements c.**, **6. Specific Reporting Requirements c.** and **d.**, and **7. Specific Control Equipment Operating Conditions b.**

e. Emissions of Sulfuric Acid Mist (SAM or H_2SO_4) shall not exceed 5 ppmvd at 3% O_2. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 20.c.ii.]

Compliance Demonstration Method:

Compliance with the consent decree shall be demonstrated by stack testing according to **3. Testing Requirements d.** and **f.** See also **4. Specific Monitoring Requirements f.**, **g.**, and **h.**, **5. Specific Recordkeeping Requirements a.**, **6. Specific Reporting Requirements a.** and **b.**, and **7. Specific Control Equipment Operating Conditions a.**

f. Emission limitations from 40 CFR 63, Subpart UUUUU are listed in **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 a performance test for particulate matter (filterable) emissions from the shared stack using U.S. EPA Reference Method 5B, or other method as approved by the Division, by the start of the fourth (4^{th}) year of the term of V-23-016 and every five years thereafter to demonstrate compliance with the applicable standards of the permit. This requirement may be satisfied with the successful completion of testing performed in conjunction with PM CEMS compliance certification/recertification tests when approved by the Division. [401 KAR 50:045, Section 1]

b. Annual PM CEMS compliance certification/recertification monitor tests to audit the correlation of the reference method mass emissions and the PM CEMS according to the Relative Response Audit (RRA) Test procedures in Performance Specification 11 as described in Procedure 2 of Appendix F to 40 CFR part 60 shall be conducted. A Response Correlation Audit (RCA) shall be conducted every three years. An RCA conducted during the period in which an RRA is required can take the place of the RRA for that period. The shared stack includes emissions from both EU 02 and EU 03 (Units 2 and 3). [401 KAR 52:020, Section 10 and Appendix F to 40 CFR part 60]

c. Performance testing shall be conducted in accordance with 401 KAR 50:045 and pursuant to 40 CFR 64.4(c)(1). The testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit. [401 KAR 50:045, Section 1]

d. Compliance with the SAM emission limitation set forth in **2. Emission Limitations e.** shall be determined through annual SAM stack tests conducted pursuant to the most recent procedures set forth in Appendix A of Civil Action Number 3:12-cv-00076-GFVT. Such stack tests shall be conducted under representative unit operating conditions, taking into account fuel sulfur content, load, and other parameters known to impact SAM emissions. Annual stack tests are required. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 22.a. and 22.b.]

e. The permittee may petition the EPA to change the annual (SAM) stack test and reporting requirements if they can demonstrate that appropriate continuous emissions devices for SAM are available, but the permittee shall submit SAM emissions control parameters and data on at least an annual basis. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 22.c.]

f. If any of the following events occur at Unit 3, the permittee shall conduct a stack test within 60 days of the relevant change at Unit 3 and use the results of the stack test to adjust, as necessary, the CAM-determined DSI rates for applicable load ranges for Unit 3:
   i. The monthly average sulfur content of fuel combusted in Unit 3, calculated at the end of any calendar month, is greater than 20% above the highest sulfur content used at Unit 3 during the most recent stack test;
   ii. To the extent that KU reasonably expects any of the following changes to remain in effect for more than 60 days:

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

1. The material replacement, or change in design, of SAM emissions control equipment for Unit 3;
2. A change in the type of fuel combusted in Unit 3 to a fuel not permitted for use in Unit 3 prior to the Date of Entry of the Consent Decree;
3. A change in the type of sorbent material used for SAM emission control at Unit 3; or
4. Any other change that KU would reasonably expect to result in an increase in the SAM emission rate prior to adjustment of control parameters.

iii. The permittee may rely on the results of a previously scheduled stack test in lieu of conducting an additional stack test if the previously scheduled stack test will occur during the 60-day period after implementation of the relevant change.

[Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.c.]

g. The permittee shall conduct a performance test using Method 9 of Appendix A-4 of 40 CFR part 60 and the procedures in 40 CFR 60.11. The observation period for Method 9 performance tests may be reduced from 3 hours to 60 minutes if all 6-minutes 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 60.45(b)(7)]

i. Except as provided in 40 CFR 60.45(b)(7)(ii) or (b)(7)(iii), the permittee shall conduct subsequent Method 9 performance tests according to the following schedule, as determined by the most recent Method 9 performance test results: [40 CFR60.45(b)(7)(i)]

1. If no visible emissions are observed, a subsequent Method 9 performance test shall be completed within 12 calendar months from the date that the most recent performance test was conducted. [40 CFR 60.45(b)(7)(i)(A)]
2. If visible emissions are observed but the maximum 6-minutes average opacity is less than or equal to 5 percent, a subsequent Method 9 performance test shall be completed within 6 calendar months from the date that the most recent performance test was conducted. [40 CFR 60.45(b)(7)(i)(B)]
3. If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 performance test shall be completed within 3 calendar months from the date that the most recent performance test was conducted. [40 CFR 60.45(b)(7)(i)(C)]
4. If the maximum 6-minute opacity is greater than 10 percent, a subsequent Method 9 performance test shall be completed within 45 days from the date that the most recent performance test was conducted. [40 CFR 60.45(b)(7)(i)(D)]

ii. If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 performance test, the permittee may, as an alternative to performing subsequent a Method 9 performance test, elect to perform subsequent monitoring using Method 22 of Appendix A-7 of 40 CFR part 60 according to the following procedures: [40 CFR 60.45(b)(7)(ii)]

1. The permittee shall conduct 10-minute observations (during normal operation) each operating day the boiler combusts fuel for which an opacity standard is applicable using Method 22 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

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

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 observation (i.e., 90 seconds) or conduct a new Method 9 performance test using the procedures in 40 CFR 60.45(b)(7) within 45 calendar days according to the requirements of 40 CFR 60.46(b)(3) [40 CFR 60.45(b)(7)(ii)(A)]

2. 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.

iii. If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 performance test, the permittee may, as an alternative to performing subsequent Method 9 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Division. The observations shall be similar, but not necessarily identical, to the requirements in 40 CFR 60.45(b)(7)(ii). [40 CFR 60.45(b)(7)(iii)]

h. Testing requirements from 40 CFR 63, Subpart UUUUU are listed in **Section D – Source Emission Limitations and Testing Requirements**.

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

a. The permittee shall monitor the duration of each start-up. [401 KAR 52:020, Section 10]

b. The permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring SO_2 emissions, NO_x emissions, and either oxygen (O_2) or carbon dioxide (CO_2) [40 CFR 60.45(a)] from the shared stack of EUs 02 and 03. The conversion procedures of 40 CFR 60.45(e) shall be used to convert the continuous monitoring data into units of the applicable standard (lb/MMBtu) [40 CFR 60.45(e)].

c. For performance evaluations under 40 CFR 60.13(c) and calibration checks under 40 CFR 60.13(d), the following procedures shall be used: [40 CFR 60.45(c)]

i. Methods 6, 7, and 3B of Appendix A of 40 CFR part 60, as applicable, shall be used for the performance evaluations of SO_2 and NOx continuous monitoring systems. Acceptable alternative methods for Methods 6, 7, and 3B are given in 40 CFR 60.46(d). [40 CFR 60.45(c)(1)]

ii. SO_2 and NO_x, as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B to 40 CFR part 60. [40 CFR 60.45(c)(2)]

iii. For a continuous monitoring system measuring SO_2 or NO_x the span value shall be determined using one of the procedures from 40 CFR 60.45(c)(3)(i) and (ii). [40 CFR 60.45(c)(3)]

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

d. The permittee shall install, calibrate, maintain, and operate a CEMS for measuring PM emissions. The PM CEMS shall comply with Appendix B to 40 CFR part 60 [401 KAR 59:005, Section 4(1)]. The permittee shall follow the most current applicable compliance and monitoring provisions in 40 CFR 60.48Da and 60.49Da of 40 CFR 60, Subpart Da, which includes Procedure 2 in Appendix F to 40 CFR part 60 [40 CFR 60.45(g)(4)].

e. CEMS shall be used to satisfy the CAM requirements for PM, SO_2, and NO_x. When CEMS data shows excess emissions as defined in **6. Specific Reporting Requirements a.**, the permittee shall, as appropriate, initiate an investigation of the cause and take any corrective action as soon as practicable. [40 CFR 64.3(d)(1)]

f. The permittee shall implement CAM for SAM emissions at Unit 3 based on the most recent CAM plan approved by the Division and as follows: [40 CFR 64.2]

CAM Monitoring Approach for SAM (H_2SO_4 Mist)			
I.	**Indicator**	**SAM Indicative Monitor Output (Primary)**	**DSI Rate (Only applicable if the primary indicator cannot collect accurate data)**
A.	Measurement Approach	SAM Indicative Correlation: Output recorded as hourly averages and reduced to 3-hour rolling averages.	DSI Rate per Gross Generation (MWg) Relationship: DSI rate (lb/hr) monitored continuously; hourly average recorded and reduced to 3-hour rolling averages.
II.	**Indicator Range**	An excursion occurs when any 3-hour rolling average of correlated SAM Indicative Monitor output value exceeds 95% of 5 ppmvd at 3% O_2.	An excursion occurs if the 3-hour rolling average of the DSI rates are below the minimum injection levels determined using operational data gathered during the most recent SAM stack testing.
A.	Corrective Action	In response to an excursion, KU shall: 1) Complete an inspection of the SAM Indicative Monitor system to determine any potential problems with data collection or validation and correct any revealed performance issues in an expedient manner; and 2) Complete an inspection of the DSI system, as necessary, to determine the cause of any injection problems and correct any revealed performance issues in an expedient manner. 3) If corrective actions are not successful in returning the performance indicators to compliant ranges, an additional stack test shall be performed to confirm or update the SAM Indicative Monitor correlation and/or DSI per MWg relationships.	
III.	**Performance Criteria**	Installation, calibration, and startup procedures shall be followed in accordance with good engineering practices.	
A.	Data Representativeness	The correlated output at each location will be compared to the emission limitation.	The DSI injection rates will be compared to the minimum injection levels determined from data collected during the most recent SAM stack test.
B.	Verification of Operational Status	Annual SAM stack tests conducted pursuant to the procedures set forth in Appendix A of Civil Action Number 3:12-cv-00076-GFVT.	

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

CAM Monitoring Approach for SAM (H_2SO_4 Mist)			
I.	**Indicator**	**SAM Indicative Monitor Output (Primary)**	**DSI Rate (Only applicable if the primary indicator cannot collect accurate data)**
C.	QA/QC Practices and Criteria	Calibrate and maintain the SAM Indicative Monitoring System in accordance with good engineering practices.	Calibrate and maintain the DSI system in accordance with good engineering practices.
D.	Monitoring Frequency	Continuous.	
IV.	**Data Collection Procedures**	Data collection system	
V.	**Averaging Period**	1-hour values reduced to 3-hour rolling averages.	
VI.	**Recordkeeping**	Hourly SAM Indicative Monitor output and 3-hour rolling averages of the output; Associated upset conditions and monitoring malfunctions, as applicable.	Hourly DSI rate and 3-hour rolling averages of the DSI rate; Associated upset conditions and monitoring malfunctions, as applicable.
VII	**Reporting**	Excursions and corrective actions shall be included in the semi-annual monitoring reports	A summary of excursions and corrective actions shall be included in the semi-annual monitoring reports.

g. At all times that Unit 3 is in operation, the permittee shall monitor the continuous monitored indication of SAM and the sorbent injection rate for Unit 3 for comparison to the applicable performance indicators determined in the CAM plan for the relevant load.
   i. Any excursion from the applicable CAM-determined performance indicators shall be addressed through compliance with the response protocols set forth in the CAM plan. Such an excursion shall not be considered a violation subject to stipulated penalties under the Consent Decree, notwithstanding any language in Section IX (Stipulated Penalties) of the Consent Decree.
   ii. Any excursion from the CAM plan shall be subject to the applicable reporting requirements of Section VII of the Consent Decree.

   [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.d.]

h. The permittee shall monitor the sorbent injection rates and other relevant operating data on a daily basis. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.e.]

i. See **Section D – Source Emission Limitations and Testing Requirements** for additional monitoring requirements from 40 CFR 63, Subpart UUUUU.

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a daily log of the sorbent injection rates and other relevant operating data, including date, average daily unit load (MWg), operating hours for each day, sorbent injection flow rate (gal/min or tons/hr), and sorbent injection density (if injecting liquid sorbent). [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.e.]

b. The permittee shall record the duration and type (cold, warm, or hot) of each start-up. [401 KAR 52:020, Section 10]

c. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. Each fuel analysis;
   ii. The rate of fuel combusted for each fuel type, on a daily basis;
   iii. The heating value (in Btu/lb) and ash content (in percent by weight) of fuel as burned on a weekly basis;
   iv. The average electrical output, the minimum hourly generation rate, and the maximum hourly generation rate on a daily basis;
   v. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted;
   vi. Data collected either by CEMS or as necessary to convert monitoring data to the units of the applicable standard; and
   vii. Results of all compliance tests.

d. The permittee shall maintain records according to the following requirements, applicable to the visible emissions monitoring method used: [40 CFR 60.45(h)]
   i. For each performance test conducted using Method 9 of Appendix A-4 of 40 CFR part 60, the permittee shall maintain the records, including the following information:
      1. Dates and time intervals of all opacity observation periods;
      2. Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and
      3. Copies of all visible emission observer opacity field data sheets.
   ii. For each performance test conducted using Method 22 of Appendix A-4 of 40 CFR part 60, the permittee shall maintain the records including the following information:
      1. Dates and time intervals of all visible emissions observation periods;
      2. Name and affiliation for each visible emission observer participating in the performance test;
      3. Copies of all visible emission observer opacity field data sheets; and
      4. Documentation of any adjustments made and the time the adjustments were completed to the Unit 3 operation by the permittee to demonstrate compliance with the applicable monitoring requirements.
   iii. 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 Division.

e. See **Section D – Source Emission Limitations and Testing Requirements** for additional recordkeeping requirements from 40 CFR 63, Subpart UUUUU.

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

6. Specific Reporting Requirements:

a. Within sixty (60) days of completion of each required SAM stack test, the permittee shall submit to KDAQ for review and approval, a revision to its CAM plan that determines average continuous monitored indication of SAM values and minimum sorbent injection rates for applicable load ranges, as provided for in the CAM plan, based on the most recent stack test. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.b.i.]

b. If the permittee demonstrates that the CAM-determined minimum sorbent injection rates have remained consistent for five (5) consecutive testing periods, then the permittee may submit to KDAQ for review and approval, a revision to its CAM plan that provides for the permittee to thereafter use the previously determined minimum sorbent injection rates without recalculating based on subsequent testing periods. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.b.iii.]

c. Excess emission and monitoring system performance reports shall be submitted to the Division quarterly. Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows: [40 CFR 60.45(g)]
   i. SO_2. Excess emissions are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of SO_2 as measured by a CEMS exceed the applicable standard in 2. Emission Limitations c.
   ii. NO_x. Excess emissions are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards in **2. Emission Limitations d.**
   iii. PM. Excess emissions are defined as any boiler operating day period during which the average emissions (arithmetic average of all operating one-hour periods) exceed the applicable standards in **2. Emission Limitations a.**

d. Each excess emission and MSP report shall include the following information: [40 CFR 60.45(g) referencing 40 CFR 60.7(c)]
   i. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period
   ii. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of Unit 3. The nature and cause of any malfunction (if known), the corrective action taken, or preventative measures adopted.
   iii. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
   iv. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

e. For exceedances that occur as a result of start-up, the permittee shall report the type of start-up (cold, warm, or hot) and whether or not the duration of the start-up exceeded the

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

manufacturer's recommended or typical historic durations, and if so, an explanation of how the start-up exceeded recommended or typical durations. [401 KAR 52:020, Section 10]

f. See **Section D – Source Emission Limitations and Testing Requirements** for additional reporting requirements from 40 CFR 63, Subpart UUUUU.

7. Specific Control Equipment Operating Conditions:

a. The permittee shall continuously operate the existing SAM controls at Ghent Station Unit 3 [Civil Action Number 3:12-cv-00076-GFVT, paragraph 19]. The permittee shall continuously operate enhanced sorbent injection controls to reduce SAM emissions with the goal of achieving a SAM emission rate of no greater than 5 ppmvd (at 3% O_2) for this unit [Civil Action Number 3:12-cv-00076-GFVT, paragraph 20.a].

Compliance Demonstration Method:

Compliance with the consent decree shall be demonstrated according to **4. Specific Monitoring Requirements j., k., and l.** and **5. Specific Recordkeeping Requirements b.**

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

c. See **Section E – Source Control Equipment Requirements** for additional requirements.

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

Emission Unit 04 **Unit 4 Indirect Heat Exchanger**

Description: Dry bottom, wall-fired boiler
Fuel: Pulverized Coal
Number two fuel oil used for startups and stabilization
Maximum Continuous Rating: 5,500 MMBtu/hr
Construction Commenced: Prior to September 18, 1978 and After August 17, 1971
Controls: Low NO_x Burners with Overfire Air
Selective Catalytic Reduction (SCR)
Wet Limestone Forced-Oxidation SO_2 Scrubber (WFGD)
Dry Sorbent Injection (DSI) SAM Control
DSI or Liquid Hg Control
Pulse-Jet Fabric Filter
Stack: EP26 (not shared)

APPLICABLE REGULATIONS:

401 KAR 51:160, *NO_x requirements for large utility and industrial boilers*
401 KAR 51:210, *CAIR NO_x annual trading program*
401 KAR 51:220, *CAIR NO_x ozone season trading program*
401 KAR 51:230, *CAIR SO_2 trading program*
401 KAR 52:060, *Acid rain permits* (See **Section J**)
401 KAR 59:015, *New indirect heat exchangers*
401 KAR 60:005, Section 2(2)(a), 40 C.F.R. 60.40 through 60.46 (**Subpart D**), *Standards of Performance for Fossil-Fuel-Fired Steam Generators*
401 KAR 63:002, Section 2(4)(yyyy), 40 C.F.R. 63.9980 through 63.10042, Tables 1 through 9, and Appendices A through E (**Subpart UUUUU**), *National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units* (See **Section D**)
40 CFR part 64, *Compliance Assurance Monitoring* (for PM, SO_2, NO_x and SAM)
40 CFR part 75, *Continuous Emission Monitoring*
40 CFR 97, Subpart AAAAA, *CSAPR NO_x Annual Trading Program* (See **Section L**)
40 CFR 97, Subpart CCCCC, *CSAPR SO_2 Group 1 Trading Program* (See **Section L**)
40 CFR 97, Subpart EEEEE, *CSAPR NO_x Ozone Season Group 2 Trading Program* (See **Section L**)

APPLICABLE CONSENT DECREE:

Civil Action Number 3:12-cv-00076-GFVT, filed August 21, 2013, terminated September 19, 2018.

1. **Operating Limitations:**
   a. During a startup period or a shutdown period, the permittee shall comply with the work practice standards established in Table 3 of 40 CFR 63, Subpart UUUUU. [401 KAR 59:015, Section 7(2)(b)]

   b. Requirements of 40 CFR 63, Subpart UUUUU are listed in **Section D – Source Emission Limitations and Testing Requirements**.

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

2. Emission Limitations:

a. PM emissions shall not exceed 0.10 lb/MMBtu heat input, based on the arithmetic average of all operating one-hour periods in any boiler operating day. [40 CFR 60.42(a)(1) and 40 CFR 60.45(g)(4)]

Compliance Demonstration Method:

Compliance with the applicable 40 CFR 60, Subpart D PM emission limitation shall be demonstrated according to **3. Testing Requirements a.** See also **4. Specific Monitoring Requirements d.**, **5. Specific Recordkeeping Requirements c.**, **6. Specific Reporting Requirements c.** and **d.**, and **7. Specific Control Equipment Operating Conditions b.**

b. Emissions from the stack shall not exceed 20 percent opacity except for one six-minute period per hour of not more than 27 percent opacity. [40 CFR 60.42(a)(2)]

Compliance Demonstration Method:

Compliance with the applicable 40 CFR 60, Subpart D opacity standard shall be demonstrated according to **3. Testing Requirements g.** for affected facilities that elect to not use a COMS under 40 CFR 60.45(b)(5); A COMS is not required for affected facilities using a PM CEMS [40 CFR 60.45(b)(5)]. See also **5. Specific Recordkeeping Requirements f.**, and **7. Specific Control Equipment Operating Conditions b.**

c. Sulfur dioxide (SO_2) emissions shall not exceed 1.2 lb/MMBtu heat input, based on the arithmetic average of three contiguous one-hour periods. [40 CFR 60.43(a)(2)]

Compliance Demonstration Method:

Compliance with the applicable 40 CFR 60, Subpart D SO_2 emission limitations shall be demonstrated according to **4. Specific Monitoring Requirements b.** and **c.**, **5. Specific Recordkeeping Requirements c.** and **e.**, **6. Specific Reporting Requirements c.** and **d.**, and **7. Specific Control Equipment Operating Conditions b.**

d. Nitrogen oxides (NO_x) emissions shall not exceed 0.70 lb/MMBtu heat input, based on the arithmetic average of three contiguous one-hour periods. [40 CFR 60.44(a)(3)]

Compliance Demonstration Method:

Compliance with the applicable 40 CFR 60, Subpart D NO_x emission limitation shall be demonstrated according to **4. Specific Monitoring Requirements b.** and **c.**, **5. Specific Recordkeeping Requirements c.** and **e.**, **6. Specific Reporting Requirements c.** and **d.**, and **7. Specific Control Equipment Operating Conditions b.**

e. Emissions of Sulfuric Acid Mist (SAM or H_2SO_4) shall not exceed 5 ppmvd at 3% O_2. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 20.c.ii.]

Compliance Demonstration Method:

Compliance with the consent decree shall be demonstrated by stack testing according to **3. Testing Requirements d.** and **f.** See also **4. Specific Monitoring Requirements f.**, **g.**, and **h.**, **5. Specific Recordkeeping Requirements a.**, **6. Specific Reporting Requirements a.** and **b.**, and **7. Specific Control Equipment Operating Conditions a.**

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

f. Emission limitations from 40 CFR 63, Subpart UUUUU are listed in **Section D – Source Emission Limitations and Testing Requirements**.

3. Testing Requirements:

a. The permittee shall conduct a performance test for particulate matter (filterable) emissions using U.S. EPA Reference Method 5B, or other method as approved by the Division, by the start of the fourth (4^{th}) year of the term of V-23-016 and every five years thereafter to demonstrate compliance with the applicable standards of the permit. This requirement may be satisfied with the successful completion of testing performed in conjunction with PM CEMS compliance certification/recertification tests when approved by the Division. [401 KAR 50:045, Section 1]

b. Annual PM CEMS compliance certification/recertification monitor tests to audit the correlation of the reference method mass emissions and the PM CEMS according to the Relative Response Audit (RRA) procedures as described in Procedure 2 of Appendix F to 40 CFR part 60 shall be conducted. A Response Correlation Audit (RCA) shall be conducted every three years per Procedure 2 of Appendix F to 40 CFR part 60. An RCA conducted during the period in which an RRA is required can take the place of the RRA for that period. [401 KAR 52:020, Section 10 and Appendix F to 40 CFR part 60]

c. Performance testing shall be conducted in accordance with 40 CFR 60.46, 401 KAR 50:045 and pursuant to 40 CFR 64.4(c)(1). The testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit. [401 KAR 50:045, Section 1]

d. Compliance with the SAM emission limitation set forth in **2. Emission Limitations e.** shall be determined through annual SAM stack tests conducted pursuant to the most recent procedures set forth in Appendix A of Civil Action Number 3:12-cv-00076-GFVT. Such stack tests shall be conducted under representative unit operating conditions, taking into account fuel sulfur content, load, and other parameters known to impact SAM emissions. Annual stack tests are required. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 22.a. and 22.b.]

e. The permittee may petition the EPA to change the annual (SAM) stack test and reporting requirements if they can demonstrate that appropriate continuous emissions devices for SAM are available, but the permittee shall submit SAM emissions control parameters and data on at least an annual basis. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 22.c.]

f. If any of the following events occur at Unit 4, the permittee shall conduct a stack test within 60 days of the relevant change at Unit 4 and use the results of the stack test to adjust, as necessary, the CAM-determined DSI rates for applicable load ranges for Unit 4:
   i. The monthly average sulfur content of fuel combusted in Unit 4, calculated at the end of any calendar month, is greater than 20% above the highest sulfur content used at Unit 4 during the most recent stack test;
   ii. To the extent that KU reasonably expects any of the following changes to remain in effect for more than 60 days:

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

1. The material replacement, or change in design, of SAM emissions control equipment for Unit 4;
2. A change in the type of fuel combusted in Unit 4 to a fuel not permitted for use in Unit 4 prior to the Date of Entry of the Consent Decree;
3. A change in the type of sorbent material used for SAM emission control at Unit 4; or
4. Any other change that KU would reasonably expect to result in an increase in the SAM emission rate prior to adjustment of control parameters.

iii. The permittee may rely on the results of a previously scheduled stack test in lieu of conducting an additional stack test if the previously scheduled stack test will occur during the 60-day period after implementation of the relevant change.

[Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.c.]

g. The permittee shall conduct a performance test using Method 9 of Appendix A-4 of 40 CFR part 60 and the procedures in 40 CFR 60.11. The observation period for Method 9 performance tests may be reduced from 3 hours to 60 minutes if all 6-minutes 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 60.45(b)(7)]

i. Except as provided in 40 CFR 60.45(b)(7)(ii) or (b)(7)(iii), the permittee shall conduct subsequent Method 9 performance tests according to the following schedule, as determined by the most recent Method 9 performance test results: [40 CFR60.45(b)(7)(i)]

1. If no visible emissions are observed, a subsequent Method 9 performance test shall be completed within 12 calendar months from the date that the most recent performance test was conducted. [40 CFR 60.45(b)(7)(i)(A)]
2. If visible emissions are observed but the maximum 6-minutes average opacity is less than or equal to 5 percent, a subsequent Method 9 performance test shall be completed within 6 calendar months from the date that the most recent performance test was conducted. [40 CFR 60.45(b)(7)(i)(B)]
3. If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 performance test shall be completed within 3 calendar months from the date that the most recent performance test was conducted. [40 CFR 60.45(b)(7)(i)(C)]
4. If the maximum 6-minute opacity is greater than 10 percent, a subsequent Method 9 performance test shall be completed within 45 days from the date that the most recent performance test was conducted. [40 CFR 60.45(b)(7)(i)(D)]

ii. If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 performance test, the permittee may, as an alternative to performing subsequent a Method 9 performance test, elect to perform subsequent monitoring using Method 22 of Appendix A-7 of 40 CFR part 60 according to the following procedures: [40 CFR 60.45(b)(7)(ii)]

1. The permittee shall conduct 10-minute observations (during normal operation) each operating day the boiler combusts fuel for which an opacity standard is applicable using Method 22 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

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

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 observation (i.e., 90 seconds) or conduct a new Method 9 performance test using the procedures in 40 CFR 60.45(b)(7) within 45 calendar days according to the requirements of 40 CFR 60.46(b)(3) [40 CFR 60.45(b)(7)(ii)(A)]

2. 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.

iii. If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 performance test, the permittee may, as an alternative to performing subsequent Method 9 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Division. The observations shall be similar, but not necessarily identical, to the requirements in 40 CFR 60.45(b)(7)(ii). [40 CFR 60.45(b)(7)(iii)]

h. Testing requirements from 40 CFR 63, Subpart UUUUU are listed in **Section D – Source Emission Limitations and Testing Requirements**.

4. Specific Monitoring Requirements:

a. The permittee shall monitor the duration of each start-up. [401 KAR 52:020, Section 10]

b. The permittee shall install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring SO_2 emissions, NO_x emissions, and either oxygen (O_2) or carbon dioxide (CO_2) [40 CFR 60.45(a)]. The conversion procedures of 40 CFR 60.45(e) shall be used to convert the continuous monitoring data into units of the applicable standard (lb/MMBtu) [40 CFR 60.45(e)].

c. For performance evaluations under 40 CFR 60.13(c) and calibration checks under 40 CFR 60.13(d), the following procedures shall be used: [40 CFR 60.45(c)]

i. Methods 6, 7, and 3B of Appendix A of 40 CFR part 60, as applicable, shall be used for the performance evaluations of SO_2 and NO_x continuous monitoring systems. Acceptable alternative methods for Methods 6, 7, and 3B are given in 40 CFR 60.46(d). [40 CFR 60.45(c)(1)]

ii. SO_2 and NO_x, as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B to 40 CFR part 60. [40 CFR 60.45(c)(2)]

iii. For a continuous monitoring system measuring SO_2 or NO_x the span value shall be determined using one of the procedures from 40 CFR 60.45(c)(3)(i) and (ii). [40 CFR 60.45(c)(3)]

d. The permittee shall install, calibrate, maintain, and operate a CEMS for measuring PM emissions. The PM CEMS shall comply with Appendix B to 40 CFR part 60 [401 KAR

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

59:005, Section 4(1)]. The permittee shall follow the most current applicable compliance and monitoring provisions in 40 CFR 60.48Da and 60.49Da of 40 CFR 60, Subpart Da, which includes Procedure 2 in Appendix F to 40 CFR part 60 [40 CFR 60.45(g)(4)].

e. CEMS shall be used to satisfy the CAM requirements for PM, SO_2, and NO_x. When CEMS data shows excess emissions as defined in **6. Specific Reporting Requirements a.**, the permittee shall, as appropriate, initiate an investigation of the cause and take any corrective action as soon as practicable. [40 CFR 64.3(d)(1)]

f. The permittee shall implement CAM for SAM emissions at Unit 4 based on the most recent CAM plan approved by the Division and as follows: [40 CFR 64.2]

CAM Monitoring Approach for SAM (H_2SO_4 Mist)			
I.	**Indicator**	**SAM Indicative Monitor Output (Primary)**	**DSI Rate (Only applicable if the primary indicator cannot collect accurate data)**
A.	Measurement Approach	SAM Indicative Correlation: Output recorded as hourly averages and reduced to 3-hour rolling averages.	DSI Rate per Gross Generation (MWg) Relationship: DSI rate (lb/hr) monitored continuously; hourly average recorded and reduced to 3-hour rolling averages.
II.	**Indicator Range**	An excursion occurs when any 3-hour rolling average of correlated SAM Indicative Monitor output value exceeds 95% of 5 ppmvd at 3% O_2.	An excursion occurs if the 3-hour rolling average of the DSI rates are below the minimum injection levels determined using operational data gathered during the most recent SAM stack testing.
A.	Corrective Action	In response to an excursion, KU shall: 1) Complete an inspection of the SAM Indicative Monitor system to determine any potential problems with data collection or validation and correct any revealed performance issues in an expedient manner; and 2) Complete an inspection of the DSI system, as necessary, to determine the cause of any injection problems and correct any revealed performance issues in an expedient manner. 3) If corrective actions are not successful in returning the performance indicators to compliant ranges, an additional stack test shall be performed to confirm or update the SAM Indicative Monitor correlation and/or DSI per MWg relationships.	
III.	**Performance Criteria**	Installation, calibration, and startup procedures shall be followed in accordance with good engineering practices.	
A.	Data Representativeness	The correlated output at each location will be compared to the emission limitation.	The DSI injection rates will be compared to the minimum injection levels determined from data collected during the most recent SAM stack test.
B.	Verification of Operational Status	Annual SAM stack tests conducted pursuant to the procedures set forth in Appendix A of Civil Action Number 3:12-cv-00076-GFVT.	

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

CAM Monitoring Approach for SAM (H_2SO_4 Mist)			
I.	**Indicator**	**SAM Indicative Monitor Output (Primary)**	**DSI Rate (Only applicable if the primary indicator cannot collect accurate data)**
C.	QA/QC Practices and Criteria	Calibrate and maintain the SAM Indicative Monitoring System in accordance with good engineering practices.	Calibrate and maintain the DSI system in accordance with good engineering practices.
D.	Monitoring Frequency	Continuous.	
IV.	**Data Collection Procedures**	Data collection system	
V.	**Averaging Period**	1-hour values reduced to 3-hour rolling averages.	
VI.	**Recordkeeping**	Hourly SAM Indicative Monitor output and 3-hour rolling averages of the output; Associated upset conditions and monitoring malfunctions, as applicable.	Hourly DSI rate and 3-hour rolling averages of the DSI rate; Associated upset conditions and monitoring malfunctions, as applicable.
VII	**Reporting**	Excursions and corrective actions shall be included in the semi-annual monitoring reports	A summary of excursions and corrective actions shall be included in the semi-annual monitoring reports.

g. At all times that Unit 4 is in operation, the permittee shall monitor the continuous monitored indication of SAM and the sorbent injection rate for Unit 4 for comparison to the applicable performance indicators determined in the CAM plan for the relevant load.
   i. Any excursion from the applicable CAM-determined performance indicators shall be addressed through compliance with the response protocols set forth in the CAM plan. Such an excursion shall not be considered a violation subject to stipulated penalties under the Consent Decree, notwithstanding any language in Section IX (Stipulated Penalties) of the Consent Decree.
   ii. Any excursion from the CAM plan shall be subject to the applicable reporting requirements of Section VII of the Consent Decree.

   [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.d.]

h. The permittee shall monitor the sorbent injection rates and other relevant operating data on a daily basis. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.e.]

i. See **Section D – Source Emission Limitations and Testing Requirements** for additional monitoring requirements from 40 CFR 63, Subpart UUUUU.

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a daily log of the sorbent injection rates and other relevant operating data, including date, average daily unit load (MWg), operating hours for each day, sorbent injection flow rate (gal/min or tons/hr), and sorbent injection density (if injecting liquid sorbent). [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.e.]

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

b. The permittee shall record the duration and type (cold, warm, or hot) of each start-up. [401 KAR 52:020, Section 10]

c. The permittee shall maintain records of the following: [401 KAR 52:020, Section 10]
   i. Each fuel analysis;
   ii. The rate of fuel combusted for each fuel type, on a daily basis;
   iii. The heating value (in Btu/lb) and ash content (in percent by weight) of fuel as burned on a weekly basis;
   iv. The average electrical output, the minimum hourly generation rate, and the maximum hourly generation rate on a daily basis;
   v. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted;
   vi. Data collected either by CEMS or as necessary to convert monitoring data to the units of the applicable standard; and
   vii. Results of all compliance tests.

d. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of Unit 4, any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative. [401 KAR 59:005, Section 3(2)]

e. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; and adjustments and maintenance performed on these systems and devices; and all other information required by 401 KAR 59:005, recorded in a permanent form suitable for inspection. [401 KAR 59:005, Section 3(4)]

f. The permittee shall maintain records according to the following requirements, applicable to the visible emissions monitoring method used: [40 CFR 60.45(h)]
   i. For each performance test conducted using Method 9 of Appendix A-4 of 40 CFR part 60, the permittee shall maintain the records, including the following information:
      1. Dates and time intervals of all opacity observation periods;
      2. Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and
      3. Copies of all visible emission observer opacity field data sheets.
   ii. For each performance test conducted using Method 22 of Appendix A-4 of 40 CFR part 60, the permittee shall maintain the records including the following information:
      1. Dates and time intervals of all visible emissions observation periods;
      2. Name and affiliation for each visible emission observer participating in the performance test;
      3. Copies of all visible emission observer opacity field data sheets; and
      4. Documentation of any adjustments made and the time the adjustments were completed to the Unit 4 operation by the permittee to demonstrate compliance with the applicable monitoring requirements.

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

iii. 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 Division.

g. See **Section D – Source Emission Limitations and Testing Requirements** for additional recordkeeping requirements from 40 CFR 63, Subpart UUUUU.

6. Specific Reporting Requirements:

a. Within sixty (60) days of completion of each required SAM stack test, the permittee shall submit to KDAQ for review and approval, a revision to its CAM plan that determines average continuous monitored indication of SAM values and minimum sorbent injection rates for applicable load ranges, as provided for in the CAM plan, based on the most recent stack test. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.b.i.]

b. If the permittee demonstrates that the CAM-determined minimum sorbent injection rates have remained consistent for five (5) consecutive testing periods, then the permittee may submit to KDAQ for review and approval, a revision to its CAM plan that provides for the permittee to thereafter use the previously determined minimum sorbent injection rates without recalculating based on subsequent testing periods. [Civil Action Number 3:12-cv-00076-GFVT, paragraph 23.b.iii.]

c. Excess emission and monitoring system performance reports shall be submitted to the Division quarterly. Periods of excess emissions and monitoring systems (MS) downtime that shall be reported are defined as follows: [40 CFR 60.45(g)]
   i. SO_2. Excess emissions are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) of SO_2 as measured by a CEMS exceed the applicable standard in 2. Emission Limitations c.
   ii. NO_x. Excess emissions are defined as any three-hour period during which the average emissions (arithmetic average of three contiguous one-hour periods) exceed the applicable standards in **2. Emission Limitations d.**
   iii. PM. Excess emissions are defined as any boiler operating day period during which the average emissions (arithmetic average of all operating one-hour periods) exceed the applicable standards in **2. Emission Limitations a.**

d. Each excess emission and monitoring system performance report shall include the following information: [40 CFR 60.45(g) referencing 40 CFR 60.7(c)]
   i. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, the date and time of commencement and completion of each time period of excess emissions, and the process operating time during the reporting period
   ii. All hourly averages shall be reported for SO_2 and NO_x monitors. The hourly averages shall be made available in the format specified by the Division.
   iii. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of Unit 4. The nature and cause of any malfunction (if known), the corrective action taken, or preventative measures adopted.

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

iv. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
v. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

e. For exceedances that occur as a result of start-up, the permittee shall report the type of start-up (cold, warm, or hot) and whether or not the duration of the start-up exceeded the manufacturer's recommended or typical historic durations, and if so, an explanation of how the start-up exceeded recommended or typical durations. [401 KAR 52:020, Section 10]

f. See **Section D – Source Emission Limitations and Testing Requirements** for additional reporting requirements from 40 CFR 63, Subpart UUUUU.

7. Specific Control Equipment Operating Conditions:

a. The permittee shall continuously operate the existing SAM controls at Ghent Station Unit 4 [Civil Action Number 3:12-cv-00076-GFVT, paragraph 19]. The permittee shall continuously operate enhanced sorbent injection controls to reduce SAM emissions with the goal of achieving a SAM emission rate of no greater than 5 ppmvd (at 3% O_2) for this unit [Civil Action Number 3:12-cv-00076-GFVT, paragraph 20.a].
Compliance Demonstration Method:
Compliance with the consent decree shall be demonstrated according to **4. Specific Monitoring Requirements g.**, and **h.** and **5. Specific Recordkeeping Requirements a.**

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

c. See **Section E – Source Control Equipment Requirements** for additional requirements.

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

Emission Unit 05 Coal Receiving Operations
Emission Unit 07 Coal Handling Operations
Emission Unit 08 Coal Conveying and Handling Operations

Description

KYEIS	Facility ID	Equipment	Maximum Operating Rate	Construction Commenced	Control(s)	Control Efficiency
05-01	05-01	Barge Unloader and Unloading Operations (Coal Use)	3,600 tons/hr	Before November 15, 1973	Partial Enclosures	70%
07	07-01	Coal Stockpiles	3,600 tons/hr	Before October 24, 1974	Wetting	70%
	07-02	Coal Belt Conveyor 1D & transfer	3,600 tons/hr		Partial Enclosure	70%
	07-03	Coal Belt Conveyor 1E & transfer	3,600 tons/hr		None	0%
	07-04	Coal Belt Conveyor 1F & transfer	3,600 tons/hr		Partial Enclosure	70%
	07-05	Coal Belt Conveyor 1G & transfer	1,500 tons/hr		Enclosed	90%
	07-06	Coal Belt Conveyor 1H & transfer	1,800 tons/hr		Enclosed	90%
	07-07	Coal Belt Conveyor 1J & transfer	900 tons/hr		Enclosed	90%
	07-08	All Unit 1 Belts to Unit 1 Silo	3,600 tons/hr		Enclosed	90%
08-01	08-01	Conveyor 1A & transfer	3,600 tons/hr	Before October 24, 1974	Partial Enclosure	70%
	08-02	Conveyor 1B & transfer	3,600 tons/hr		Enclosed	90%
	08-03	Conveyor 1C & transfer	3,600 tons/hr		Enclosed	90%

APPLICABLE REGULATIONS:
401 KAR 61:020, *Existing process operations*
401 KAR 63:010, *Fugitive emissions*

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

1. **Operating Limitations:**
   a. A person shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished; or a road to be used without taking reasonable precaution to prevent particulate matter (PM) from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]
      i. Use, if possible, of water or suitable chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land; [401 KAR 63:010, Section 3(1)(a)]
      ii. Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts; [401 KAR 63:010, Section 3(1)(b)]
      iii. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations. [401 KAR 63:010, Section 3(1)(c)]
      iv. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; [401 KAR 63:010, Section 3(1)(d)]
      v. The maintenance of paved roadways in a clean condition; or [401 KAR 63:010, Section 3(1)(e)]
      vi. The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water. [401 KAR 63:010, Section 3(1)(f)]

   b. If dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate any administrative regulation, the secretary may, based on the cause, type, or amount of a fugitive emission, order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that all air and gases and air or gas borne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air. [401 KAR 63:010, Section 3(3)]

   c. At all times while in motion, open bodied trucks, operating outside company property, transporting materials likely to become airborne shall be covered. [401 KAR 63:010, Section 4(1)]

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

2. **Emission Limitations:**
   a. No person shall cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any emission unit which is equal to or greater than forty (40) percent opacity. [401 KAR 61:020, Section 3(1)(a)]

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

Compliance Demonstration Method:
Compliance with the 401 KAR 61:020 opacity standard shall be demonstrated according to **4. Specific Monitoring Requirements b.** and **5. Specific Recordkeeping Requirements b.**

b. For emissions from a control device or stack, no person shall cause, suffer, allow, or permit the emission into the open air of particulate matter (PM) from any emission unit which is in excess of the following: [401 KAR 61:020, Section 3(2)(a)]

Process Weight Rate, P (tons/hr)	Maximum Allowable Emission Rate, E (lb/hr)
$P \leq 0.50$	$E = 2.58$
$0.50 < P \leq 30.00$	$E = 4.10P^{0.67}$
$P > 30.00$	$E = 55.0P^{0.11} - 40$

Compliance Demonstration Method:
Compliance with the 401 KAR 61:020 PM emission limitation shall be demonstrated according to **7. Specific Control Equipment Operating Conditions a.** and **b.**

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

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:
a. The permittee shall monitor the reasonable precautions taken to prevent PM from becoming airborne on a daily basis. [401 KAR 52:020, Section 10]

b. The permittee shall perform a qualitative visual observation of the opacity of emissions at each control device or stack no less than once a day while the affected facility is operating. If visible emissions from the control device or stack 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 Method 9, the permittee may immediately perform a corrective action which results in no visible emissions (not including condensed water in the plume). [401 KAR 52:020, Section 10]

c. In addition, qualitative visual observations shall be made each day of operation to determine if fugitive dust emissions are visible beyond the lot line of the property. If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct a U.S. EPA Reference Method 22 (visual determination of fugitive emissions)

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

observation per Appendix A of 40 C.F.R. part 60. In lieu of conducting a Method 22, the permittee shall immediately perform a corrective action which results in no visible fugitive dust emissions beyond the lot line of the property. [401 KAR 52:020, Section 10]

d. The permittee shall monitor the amount of coal processed (in tons) at each emission unit on a monthly basis. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a log of the reasonable precautions taken to prevent fugitive PM from becoming airborne on a daily basis. Notation of the operating status, downtime, or relevant weather conditions are acceptable for entry to the log. [401 KAR 52:020, Section 10]

b. The permittee shall maintain a log of the daily qualitative visual observations made at each control device or stack, including the date, time, identification of observer, whether any emissions were observed (yes/no), and any Method 9 readings taken or corrective actions performed. [401 KAR 52:020, Section 10]

c. The permittee shall maintain a log of the following: [401 KAR 52:020, Section 10]
   i. Qualitative fugitive emissions observations of the lot line, including the date, time, identification of observer, and whether any fugitive dust emissions were observed;
   ii. Any Method 22 performed, including field records identified in Method 22; and
   iii. Any corrective action taken with results.

d. The permittee shall maintain records of the amount of coal processed (in tons) at each emission unit on a monthly basis. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

See **Section F – Monitoring Recordkeeping, and Reporting Requirements** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The air pollution control equipment (including enclosures and water) shall be used to maintain compliance with applicable requirements, consistent with manufacturer's specifications and standard operating practices. [401 KAR 50:055]

b. Records regarding the maintenance and operation of the air pollution control equipment (including enclosures) shall be maintained. [401 KAR 52:020, Section 10]

c. See **Section E – Source Control Equipment Requirements** for additional control equipment requirements.

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

Emission Unit 06 Coal Crushing Operations (Crusher House #1)

Description:
Four Crushers and Two Surge Bins
Maximum Operating Rate: 1,800 tons/hr
Construction Commenced: Before October 24, 1974
Control Equipment: Enclosure
Control Efficiency: 90%

APPLICABLE REGULATION:
401 KAR 61:020, *Existing process operations*

1. **Operating Limitations:**
   N/A

2. **Emission Limitations:**
   a. No person shall cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any emission unit which is equal to or greater than forty (40) percent opacity. [401 KAR 61:020, Section 3(1)(a)]
   Compliance Demonstration Method:
   Compliance with the 401 KAR 61:020 opacity standard shall be demonstrated according to **4. Specific Monitoring Requirements b.** and **5. Specific Recordkeeping Requirements b.**

   b. For emissions from a control device or stack, no person shall cause, suffer, allow, or permit the emission into the open air of particulate matter (PM) from any emission unit which is in excess of the following: [401 KAR 61:020, Section 3(2)(a)]

Process Weight Rate, P (tons/hr)	Maximum Allowable Emission Rate, E (lb/hr)
$P \leq 0.50$	$E = 2.58$
$0.50 < P \leq 30.00$	$E = 4.10P^{0.67}$
$P > 30.00$	$E = 55.0P^{0.11} - 40$

   Compliance Demonstration Method:
   Compliance with the 401 KAR 61:020 PM emission limitation shall be demonstrated according to **7. Specific Control Equipment Operating Conditions**.

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:**
   a. The permittee shall monitor the amount of coal processed (in tons) and hours of operation on a daily basis .[401 KAR 52:020, Section 10]

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

b. The permittee shall perform a qualitative visual observation of the opacity of emissions at each control device or stack no less than once a week while the affected facility is operating. If visible emission from the control device or stack 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 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 coal processed (in tons) and hours of operation on a daily basis. [401 KAR 52:020, Section 10]

b. The permittee shall maintain a log of the weekly qualitative visual observations made at the control device or stack, including the date, time, initials/identification of observer, whether any emissions were observed (yes/no), and any Method 9 readings taken or corrective actions performed. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

a. The permittee shall report any visible emissions, the date and time of visible emissions, date and time of the excursions, and opacity value of all Method 9 tests taken semiannually. [401 KAR 52:020, Section 10]

b. See **Section F – Monitoring Recordkeeping, and Reporting Requirements** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The enclosures shall be used and operated to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices. [401 KAR 50:055]

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

c. See **Section E – Source Control Equipment Requirements** for additional requirements.

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

Emission Unit 09 Coal Conveyor 2H
Emission Unit 10 Coal Conveyor 6H
Emission Unit 11a Coal Crushing Operations (Crusher House #2)
Emission Unit 11b Coal Handling & Conveying Operations

KYEIS	Facility ID	Equipment	Maximum Operating Rate	Construction Commenced	Control	Control Efficiency
09-01	09-01	Coal Conveyor 2H & transfer	1,800 tons/hr	Before 1977	Enclosed	90%
10-01	10-01	Coal Conveyor 6H & transfer	1,800 tons/hr	Before 1981		
11a	11a-1	Coal Crusher	900 tons/hr			
11b	11-1	Conveyor 3G & transfer	2,400 tons/hr			
	11-2	Conveyor 4G & transfer	2,400 tons/hr			
	11-3	Conveyor 5G & transfer	1,800 tons/hr			
	11-4	Conveyor 6G & transfer	1,800 tons/hr			
	11-5	Conveyor 7G & transfer	1,800 tons/hr			
	11-6	Conveyor 8G & transfer	1,800 tons/hr			
	11-7	Conveyor 3H & transfer	1,800 tons/hr			
	11-8	Conveyor 4H & transfer	1,800 tons/hr			
	11-9	Conveyor 5H & transfer	1,800 tons/hr			
	11-10	Conveyor 2J & transfer	900 tons/hr	Before 1977		
	11-11	Conveyor 3J & transfer	900 tons/hr	Before 1981		
	11-12	Conveyor 4J & transfer	900 tons/hr			
	11-13	Conveyor 3M & transfer	900 tons/hr			
	11-14	Conveyor 4M & transfer	900 tons/hr			
	11-15	All Unit 2 Belts to Unit 2 Silo	900 tons/hr with 7 possible drop points			

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

KYEIS	Facility ID	Equipment	Maximum Operating Rate	Construction Commenced	Control	Control Efficiency
	11-16	All Unit 3 Belts to Unit 3 Silo	900 tons/ hr with 3 possible drop points			
	11-17	All Unit 4 Belts to Unit 4 Silo	900 tons/ hr with 7 possible drop points			

APPLICABLE REGULATION:
401 KAR 59:010, *New process operations*
401 KAR 60:005, Section 2(2)(gg), 40 C.F.R. 60.250 through 60.258 (**Subpart Y**), *Standards of Performance for Coal Preparation and Processing Plants*

1. **Operating Limitations:**
   N/A

2. **Emission Limitations:**
   a. Opacity from each emission units shall not exceed 20 percent. [401 KAR 59:010, Section 3(1)(a) and 40 CFR 60.254(a)]
   Compliance Demonstration Method:
   Compliance with the applicable 401 KAR 59:010 and 40 CFR 60, Subpart Y opacity limitation shall be demonstrated according to **4. Specific Monitoring Requirements b.**, **5. Specific Recordkeeping Requirements b.**, **6. Specific Reporting Requirements a.**, and **7. Specific Control Equipment Operating Conditions**.

   b. For emissions from a control device or stack, no person shall cause, suffer, allow or permit the emission into the open air of PM from any emission unit which is in excess of the following: [401 KAR 59:010, Section 3(2) referencing Appendix A]

Process Weight Rate, P (tons/hr)	Maximum Allowable Emission Rate, E (lb/hr)
$P \leq 0.50$	$E = 2.34$
$0.50 < P \leq 30.00$	$E = 3.59P^{0.62}$
$P > 30.00$	$E = 17.31P^{0.16}$

   Compliance Demonstration Method:
   Compliance with the 401 KAR 59:010 PM emission limitation shall be demonstrated according to **7. Specific Control Equipment Operating Conditions a.** and **b.**

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

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

4. Specific Monitoring Requirements:

a. The permittee shall monitor the amount of coal processed (in tons) on a monthly basis. [401 KAR 52:020, Section 10]

b. The permittee shall perform a qualitative visual observation of the opacity of emissions from each control device on a weekly basis. If visible emissions from the stack are observed, an inspection shall be initiated and corrective action taken. If visible emissions are present after the corrective action, the process shall be shut down and shall not operate again until repairs have been made that result in no visible emissions from the process during operation. In lieu of shutting the process down, the permittee may determine the opacity using U.S. EPA Reference Method 9 as described in 40 CFR 60.257(a)(1) through (3). If the opacity limit is not exceeded, the process may continue to operate. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the amount of coal processed (in tons) on a monthly basis. [401 KAR 52:020, Section 10]

b. The permittee shall maintain a log of the weekly qualitative visual observations made, including the date, time, initials/identification of observer, whether any emissions were observed (yes/no), any Method 9 readings taken or corrective actions performed. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

a. The permittee shall report the number of excursions above the opacity standard, date and time of the excursion and opacity value of the excursion semiannually. [401 KAR 52:020, Section 10]

b. See **Section F – Monitoring Recordkeeping, and Reporting Requirements** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The enclosures shall be used to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and standard operating practices. [401 KAR 50:055]

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

c. See **Section E – Source Control Equipment Requirements** for additional requirements.

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

Emission Unit 22 Four Cooling Towers with Drift Eliminators

Cooling Tower Number	Maximum Operating Design (GPM)	Construction Commenced	Rebuild Date
1	191,000	Prior to 1992	2021
2	197,000		Partial Rebuild (Cells 2-1 to 2-4): 2019 Partial Rebuild (Cells 2-5 to 2-12): 2021
3	172,000		2018
4	172,000		2020

APPLICABLE REGULATION:
401 KAR 59:010, *New process operations*

1. **Operating Limitations:**
   N/A

2. **Emission Limitations:**
   a. No person shall cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]
   Compliance Demonstration Method:
   Compliance with the applicable 401 KAR 59:010 opacity limitation shall be demonstrated according to **4. Specific Monitoring Requirements b.** and **5. Specific Recordkeeping Requirements b.**

   b. Particulate matter (PM) emissions shall not exceed the following: [401 KAR 59:010, Section 3(2) referencing Appendix A]

Process Weight Rate, P (tons/hr)	Maximum Allowable Emission Rate, E (lb/hr)
$P \leq 0.50$	$E = 2.34$
$0.50 < P \leq 30.00$	$E = 3.59P^{0.62}$
$P > 30.00$	$E = 17.31P^{0.16}$

   Compliance Demonstration Method:
   Compliance with the 401 KAR 59:010 PM limitation shall be demonstrated according to **7. Specific Control Equipment Operating Conditions**.

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:**
   a. The permittee shall monitor the water circulation rate (in gal/min) and total dissolved solids content of the recirculation water (in ppm) on a monthly basis. [401 KAR 52:020, Section 10]

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

b. The permittee shall perform a qualitative visual observation of the opacity of emissions at each stack no less than each week while the cooling tower is operating. If visible emissions 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 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 water circulation rate (in gal/min) and total dissolved solids content of the recirculation water (in ppm) on a monthly basis. [401 KAR 52:020, Section 10]

b. The permittee shall maintain a log of the qualitative visual observations made on a weekly basis including the date, time, initials/identification of observer, whether any emissions were observed (yes/no), and any Method 9 readings taken or corrective actions performed. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

See **Section F – Monitoring Recordkeeping, and Reporting Requirements** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The drift eliminators shall be maintained and operated in accordance with manufacturer's specifications and standard operating practices to ensure the emission unit is in compliance with the applicable requirements of 401 KAR 59:010. [401 KAR 52:020, Section 10]

b. Records regarding maintenance of the drift eliminators shall be maintained. [401 KAR 59:005, Section 3(4)]

c. See **Section E – Source Control Equipment Requirements** for additional requirements.

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

Emission Unit 25 Limestone Handling and Receiving
Emission Unit 27 Limestone Stockpile Operations West

Description

KYEIS	Facility ID	Equipment	Maximum Operating Rate	Construction Commenced	Control(s)	Control Efficiency
25	25-1	Limestone Barge Unloading	1,000 tons/hr	2006	Moist Material	70%
	25-2	Clamshell (Bucket) Top of Receiving Hopper	1,000 tons/hr	2006		
27	27	Limestone Storage Pile	1,000 tons/hr	2006		

APPLICABLE REGULATION:
401 KAR 63:010, *Fugitive emissions*

1. **Operating Limitations:**
   a. A person shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished; or a road to be used without taking reasonable precaution to prevent particulate matter (PM) from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]
      i. Use, if possible, of water or suitable chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land; [401 KAR 63:010, Section 3(1)(a)]
      ii. Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts; [401 KAR 63:010, Section 3(1)(b)]
      iii. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations. [401 KAR 63:010, Section 3(1)(c)]
      iv. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; [401 KAR 63:010, Section 3(1)(d)]
      v. The maintenance of paved roadways in a clean condition; or [401 KAR 63:010, Section 3(1)(e)]
      vi. The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water. [401 KAR 63:010, Section 3(1)(f)]

   b. If dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate

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

any administrative regulation, the secretary may, based on the cause, type, or amount of a fugitive emission, order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that all air and gases and air or gas borne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air. [401 KAR 63:010, Section 3(3)]

c. At all times while in motion, open bodied trucks, operating outside company property, transporting materials likely to become airborne shall be covered. [401 KAR 63:010, Section 4(1)]

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

2. Emission Limitations:

A person shall not cause, suffer, or allow visible fugitive dust emissions beyond the lot line of the property on which the emissions originate, as determined by Reference Method 22 of Appendix A in 40 C.F.R. part 60, for: [401 KAR 63:010, Section 3(2)]

a. More than five (5) minutes of emission time during any sixty (60) minutes observation period; or [401 KAR 63:010, Section 3(2)(a)]

b. More than twenty (20) minutes of emission time during any twenty-four (24) hours period. [401 KAR 63:010, Section 3(2)(b)]

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:

a. The permittee shall monitor the reasonable precautions taken to prevent PM from becoming airborne on a daily basis. [401 KAR 52:020, Section 10]

b. If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct a U.S. EPA Reference Method 22 (visual determination of fugitive emissions) observation per Appendix A of 40 C.F.R. part 60. In lieu of conducting a Method 22, the permittee may immediately perform a corrective action which results in no visible fugitive dust emissions beyond the lot line of the property. [401 KAR 52:020, Section 10]

c. In addition, qualitative visual observations shall be made each day of operation to determine if fugitive dust emissions are visible from storage piles and associated operations as a result of vehicular traffic or windy conditions. If such conditions develop, water or a chemical wetting agent shall be applied to these areas. [401 KAR 52:020, Section 10]

d. The permittee shall monitor the amount of limestone received (in tons) on a monthly basis. [401 KAR 52:020, Section 10]

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

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a log of the reasonable precautions taken to prevent PM from becoming airborne on a daily basis. Notation of the operating status, downtime, or relevant weather conditions are acceptable for entry to the log. [401 KAR 52:020, Section 10]

b. The permittee shall maintain a log of the following: [401 KAR 52:020, Section 10]
   i. Qualitative fugitive emissions observations conducted on a daily basis of the lot line, storage piles, and associated operations, including the date, time, initials/identification of observer, and whether any fugitive dust emissions were observed;
   ii. Any Method 22 performed, including field records identified in Method 22; and
   iii. Any corrective action taken with results.

c. The permittee shall maintain records of the amount of limestone received (in tons) on a monthly basis. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

See **Section F – Monitoring Recordkeeping, and Reporting Requirements** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The air pollution control equipment (including enclosures) shall be used to maintain compliance with applicable requirements, consistent with manufacturer's specifications and standard operating practices. [401 KAR 50:055]

b. Records regarding the maintenance of air pollution control equipment (including enclosures) shall be maintained. [401 KAR 52:020, Section 10]

c. See **Section E – Source Control Equipment Requirements** for additional control equipment requirements.

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

Emission Units 26 & 28 Limestone Handling and Processing

Description:

Emission Unit	Equipment	Maximum Operating Rate	Construction Commenced	Control	Control Efficiency
26-1	Limestone Hopper to Conveyor L2	1,000 tons/hr	April 2006	Enclosure	90%
26-2	Limestone Conveyor L2 to L3	1,000 tons/hr	April 2006	Enclosure	90%
26-3	Limestone Conveyor L3 to Stockpile	1,000 tons/hr	April 2006	Telescopic Chute with Skirt; Enclosure	90%
28-1	Limestone Hopper L3 to L4	550 tons/hr	April 2006	Enclosure	90%
28-2	Limestone Conveyor L4 & transfer	225 tons/hr	April 2006	Enclosure	90%
28-3	Limestone Conveyor L5 & transfer	225 tons/hr	April 2006	Enclosure	90%
28-4	Limestone Conveyor L6 & transfer	225 tons/hr	April 2006	Enclosure	90%
28-5	Limestone Conveyor L7 & transfer	225 tons/hr	April 2006	Enclosure	90%

APPLICABLE REGULATION:

401 KAR 59:010, *New process operations*

401 KAR 60:005, Section 2(2)(qqq), 40 C.F.R. 60.670 through 60.676, Tables 1 through 3 (**Subpart OOO**), *Standards of Performance for Nonmetallic Mineral Processing Plants*

1. **Operating Limitations:**
   N/A

2. **Emission Limitations:**
   a. No person shall cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]
   Compliance Demonstration Method:
   Compliance with the 401 KAR 59:010 opacity limitation shall be demonstrated through compliance with the 40 CFR 60, Subpart OOO opacity limitation.

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

b. PM emissions from a control device or stack shall not exceed the quantity specified in Appendix A to 401 KAR 59:010. [401 KAR 59:010, Section 3(2)]
Compliance Demonstration Method:
Compliance with the 401 KAR 59:010 PM emission limitation shall be assumed based on emission factors provided in the application.

c. The permittee shall meet the 10 percent opacity fugitive emissions limit for transfer points on belt conveyors or from any other affected facility as defined in 40 CFR 60.670 and 40 CFR 60.671. This requirement applies to fugitive emissions from affected facilities without capture systems and fugitive emissions escaping capture systems. [40 CFR 60.672(b) referencing Table 3 of 40 CFR 60, Subpart OOO]

d. Each enclosed affected facility shall comply with the following emission limits: [40 CFR 60.672(e)]
   i. Fugitive emissions from the building openings (except for vents as defined in 40 CFR 60.671) shall not exceed 7 percent opacity. [40 CFR 60.672(e)(1)]
   ii. Vents (as defined in 40 CFR 60.671) in the building shall meet the applicable stack emission limits and compliance requirements in Table 2 of 40 CFR 60, Subpart OOO. [40 CFR 60.672(e)(2)]

Compliance Demonstration Method:
Compliance with the 40 CFR 60, Subpart OOO opacity fugitive emissions limitations shall be demonstrated according to **4. Specific Monitoring Requirements b.**, **5. Specific Recordkeeping Requirements b.**, and **7. Specific Control Equipment Operating Conditions**.

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:
a. The permittee shall monitor the amount of limestone processed (in tons) on a monthly basis. [401 KAR 52:020, Section 10]

b. The permittee shall perform a qualitative visual observation of the opacity of emissions from each unit no less than once per week while the affected facility is operating. If visible emissions are observed, the permittee shall determine the opacity using U.S. EPA Reference Method 9. In lieu of determining the opacity using Method 9, the permittee shall immediately perform a corrective action which results in no visible emissions. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:
a. The permittee shall maintain records of the amount of limestone processed (in tons) on a monthly basis. [401 KAR 52:020, Section 10]

b. The permittee shall maintain records of the qualitative visual observations made including the date, time, initials/identification of observer, whether any emissions were observed

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

(yes/no), any Method 9 readings taken, and any corrective actions initiated. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

a. The permittee shall report the number of excursions above the opacity standard, date and time of the excursion, and opacity value of the excursion semiannually. [401 KAR 52:020, Section 10]

b. See **Section F – Monitoring Recordkeeping, and Reporting Requirements** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The air pollution control equipment (including enclosures) shall be used to maintain compliance with applicable requirements, consistent with manufacturer's specifications and standard operating practices. [401 KAR 50:055]

b. Records regarding the maintenance of the air pollution control equipment (including enclosures) shall be maintained. [401 KAR 52:020, Section 10]

c. See **Section E – Source Control Equipment Requirements** for additional requirements.

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

Emission Unit 29 Limestone Handling and Processing

Description:
Three Wet Limestone Sizing Screens; Three Wet Limestone Mills; Conveyors; Transfer Points
Maximum Operating Rate: 100 tons/hr, each
Construction Commenced: April 2006
Control Equipment: Building Enclosure and Wet Process
Control Efficiency: 90%

APPLICABLE REGULATION:
401 KAR 59:010, *New process operations*

NON-APPLICABLE REGULATION:
401 KAR 60:005, Section 2(2)(qqq), 40 C.F.R. 60.670 through 60.676, Tables 1 through 3 (**Subpart OOO**), *Standards of Performance for Nonmetallic Mineral Processing Plants*

1. **Operating Limitations:**
   N/A

2. **Emission Limitations:**
   a. No person shall cause, suffer, allow, or permit any continuous emission into the open air from a control device or stack which is equal to or greater than twenty (20) percent opacity. [401 KAR 59:010, Section 3(1)(a)]
   Compliance Demonstration Method:
   Compliance with the applicable 401 KAR 59:010 opacity limitation shall be demonstrated according to **4. Specific Monitoring Requirements b.** and **5. Specific Recordkeeping Requirements b.**

   b. Particulate matter (PM) emissions shall not exceed the following: [401 KAR 59:010, Section 3(2)]

Process Weight Rate, P (tons/hr)	Maximum Allowable Emission Rate, E (lb/hr)
$P \leq 0.50$	$E = 2.34$
$0.50 < P \leq 30.00$	$E = 3.59P^{0.62}$
$P > 30.00$	$E = 17.31P^{0.16}$

   Compliance Demonstration Method:
   Compliance with the 401 KAR 59:010 PM limitation shall be demonstrated according to **7. Specific Control Equipment Operating Conditions**.

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)]

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

4. Specific Monitoring Requirements:

a. The permittee shall monitor the amount of limestone processed (in tons) on a monthly basis. [401 KAR 52:020, Section 10]

b. The permittee shall perform a qualitative visual observation of the opacity of emissions at each stack no less than each week while the affected facility is operating. If visible emissions 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 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 limestone processed (in tons) on a monthly basis. [401 KAR 52:020, Section 10]

b. The permittee shall maintain a log of the qualitative visual observations made on a weekly basis including the date, time, initials/identification of observer, whether any emissions were observed (yes/no), and any Method 9 readings taken or corrective actions performed. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

See **Section F – Monitoring Recordkeeping, and Reporting Requirements** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The air pollution control equipment (including but not limited to enclosures) shall be used to maintain compliance with applicable requirements, consistent with manufacturer's specifications and standard operating practices. [401 KAR 50:055]

b. Records regarding maintenance of the air pollution control equipment (including but not limited to enclosures) shall be maintained. [401 KAR 59:005, Section 3(4)]

c. See **Section E – Source Control Equipment Requirements** for additional requirements.

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

Emission Units 35 & 47 CCR Landfill Operations and Haul Trucks

EU 35 Description:

Fugitive operations tied to material transport (vehicle movement) of dry material Coal Combustion Residue (CCR) Landfill

Construction Commenced: October 2012;
Controls: Wet Suppression (by watering, cleaning, and road maintenance)
Control Efficiency: 70%

EU 47 Description:

Material Transport (vehicle movement) of CCR from CCR Treatment (CCRT) to Landfill

Construction Commenced: EU 47 – 2024
Controls: Wet Suppression (by watering, cleaning, and road maintenance)
Control Efficiency: 70%

APPLICABLE REGULATION:

401 KAR 63:010, *Fugitive emissions*

NON-APPLICABLE REGULATION:

401 KAR 60:005, Section 2(2)(yyy), 40 C.F.R. 60.750 through 60.759 (**Subpart WWW**), *Standards of Performance for Municipal Solid Waste Landfills*

1. **Operating Limitations:**
   a. To preclude 40 CFR 60, Subpart WWW, the permittee shall not accept any waste from the public. The landfill shall not receive any material other than coal related material, CCR, gypsum, bottom, and fly ash products.

   b. A person shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished; or a road to be used without taking reasonable precaution to prevent particulate matter (PM) from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]
      i. Use, if possible, of water or suitable chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land; [401 KAR 63:010, Section 3(1)(a)]
      ii. Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts; [401 KAR 63:010, Section 3(1)(b)]
      iii. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations. [401 KAR 63:010, Section 3(1)(c)]
      iv. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; [401 KAR 63:010, Section 3(1)(d)]
      v. The maintenance of paved roadways in a clean condition; or [401 KAR 63:010, Section 3(1)(e)]

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

vi. The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water. [401 KAR 63:010, Section 3(1)(f)]

c. If dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate any administrative regulation, the secretary may, based on the cause, type, or amount of a fugitive emission, order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that all air and gases and air or gas borne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air. [401 KAR 63:010, Section 3(3)]

d. At all times while in motion, open bodied trucks, operating outside company property, transporting materials likely to become airborne shall be covered. [401 KAR 63:010, Section 4(1)]

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

2. Emission Limitations:

A person shall not cause, suffer, or allow visible fugitive dust emissions beyond the lot line of the property on which the emissions originate, as determined by Reference Method 22 of Appendix A in 40 C.F.R. part 60, for: [401 KAR 63:010, Section 3(2)]

a. More than five (5) minutes of emission time during any sixty (60) minutes observation period; or [401 KAR 63:010, Section 3(2)(a)]

b. More than twenty (20) minutes of emission time during any twenty-four (24) hours period. [401 KAR 63:010, Section 3(2)(b)]

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:

a. The permittee shall monitor the reasonable precautions taken to prevent PM from becoming airborne on a daily basis. [401 KAR 52:020, Section 10]

b. The permittee shall perform a qualitative visual observation of the lot line once per day during operation. If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct a U.S. EPA Reference Method 22 (visual determination of fugitive emissions) observation per Appendix A of 40 C.F.R. part 60. In lieu of conducting a Method 22, the permittee may immediately perform a corrective action which results in no visible fugitive dust emissions beyond the lot line of the property. [401 KAR 52:020, Section 10]

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

c. The permittee shall monitor the weight (in tons) and rate (in VMT) of material hauled for each unit (or vehicle) on paved and unpaved roadways on a monthly basis. [401 KAR 52:020, Section 10]

d. The permittee shall monitor the emission rate of particulate matter emitted by EU 47 on a monthly basis. [401 KAR 51:017, Section 16(5)(c)1.]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a log of the reasonable precautions taken to prevent PM from becoming airborne on a daily basis. Notation of the operating status, downtime, or relevant weather conditions are acceptable for entry to the log. [401 KAR 52:020, Section 10]

b. The permittee shall maintain a log of the following: [401 KAR 52:020, Section 10]
   i. Qualitative fugitive emissions observations conducted on a daily basis of the lot line, storage piles, and associated operations, including the date, time, initials/identification of observer, and whether any fugitive dust emissions were observed
   ii. Any Method 22 performed, including field records identified in Method 22; and
   iii. Any corrective action taken with results.

c. The permittee shall maintain records of the weight (in tons) and rate (in VMT) of material hauled for each unit (or vehicle) on paved and unpaved roadways on a monthly basis. [401 KAR 52:020, Section 10]

d. The permittee shall calculate and maintain a record of the annual emissions of particulate matter, in tons per year, on a calendar year basis for ten (10) years following the addition of EU 47. [401 KAR 51:017, Section 16(5)(c)2.b.]

6. Specific Reporting Requirements:

a. The permittee shall submit a report to the cabinet if:

   i. The annual emissions of particulate matter, in tons per year, from the addition of EU 47, exceeds the baseline actual emissions of particulate matter, as documented according to 401 KAR 51:017, Section 16(5)(b)3., by a significant amount (25 tons per year for particulate matter); and [401 KAR 51:017, Section 16(5)(e)1.a.]

   ii. The emissions differ from the preconstruction projection as documented and maintained pursuant to 401 KAR 51:017, Section 16(5)(b)3. [401 KAR 51:017, Section 16(5)(e)1.b.

   iii. The report shall be submitted within sixty (60) days after the end of the year during which records are required to be generated under 401 KAR 51:017, Section 16(5)(b) and shall contain the following information: [401 KAR 51:017, Section 16(5)(d)2.]

      1. The name, address and telephone number of the major stationary source; [401 KAR 51:017, Section 16(5)(e)2.a.]

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

2. The annual emissions as calculated pursuant to 401 KAR 51:017, Section 16(5)(c); and [401 KAR 51:017, Section 16(5)(e)2.b.]

3. Any other information the permittee wishes to include in the report. [401 KAR 51:017, Section 16(5)(e)2.c.]

iv. The permittee shall make the information required to be documented and maintained under 401 KAR 51:017, Section 16(5) available for review upon request for inspection by the cabinet or general public pursuant to 401 KAR 52:100. [401 KAR 51:017, Section 16(5)(f)]

b. See **Section F – Monitoring Recordkeeping, and Reporting Requirements** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The associated air pollution control equipment for the emission unit shall be operated to maintain compliance with permitted emission limitations, consistent with standard operating practices. [401 KAR 50:055]

b. See **Section E – Source Control Equipment Requirements** for additional requirements.

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

Emission Unit 34 Emergency Air Compressor Engine
Emission Unit 42 Unit 1 Emergency Generator Engine (EU 38 Replacement)
Emission Unit 43 Unit 2 Emergency Generator Engine (EU 39 Replacement

Description:

Emission Unit	Equipment	Fuel	Maximum Fuel Input	Rated Capacity	Manufacture Date	Construction Commenced
34	Caterpillar C15-ATAAC	Diesel	27.0 gal/hr	540 HP	November 2006	2009
42	Tier 3 Caterpillar C13 ACERT (Unit 1)		24.9 gal/hr, each	469 HP, each	2017	2017
43	Tier 3 Caterpillar C13 ACERT (Unit 2)					

APPLICABLE REGULATIONS:

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

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:**
   a. The permittee shall use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel. [40 CFR 60.4207(b)]

   b. The permittee shall do all of the following, except as permitted under 40 CFR 60.4211(g): [40 CFR 60.4211(a)]
      i. Operate and maintain the engines and control device according to the manufacturer's emission-related written instructions; [40 CFR 60.4211(a)(1)]
      ii. Change only those emission-related settings that are permitted by the manufacturer; and [40 CFR 60.4211(a)(2)]
      iii. Meet the requirements of 40 CFR part 1068, as they apply. [40 CFR 60.4211(a)(3)]

   c. In order for the engines to be considered 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 below, is prohibited. If the permittee does not operate the engines according to the following requirements, the engines will not be considered emergency engines under 40 CFR 60,

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

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)]

ii. The permittee may operate the engines for maintenance checks and readiness testing for a maximum of 100 hours per calendar year, 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. Any operation for non-emergency situation as allowed by 40 CFR 60.4211(f)(3) counts as part of the 100 hours per calendar year. [40 CFR 60.4211(f)(2) and (f)(2)(i)]

iii. The engines 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. 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. [40 CFR 60.4211(f)(3)]

d. For EU 34, the engine does not have to meet the requirements of 40 CFR 63, Subpart ZZZZ and of 40 CFR 63, Subpart A except for the initial notification requirements of 40 CFR 63.6645(f). [40 CFR 63.6590(b)(1)(i)]

e. For EUs 42 and 43, the engines shall meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII. No further requirements apply for these engines under 40 CFR 63, Subpart ZZZZ. [40 CFR 63.6590(c)(6)]

2. Emission Limitations:

The permittee shall operate and maintain the engine with the following emission standards over the entire life of the engine:

Pollutant	Emission Unit	Emission Standard, g/kW-hr (g/HP-hr)
HC	34	1.3 (1.0)
NO_x	34	9.2 (6.9)
NO_x + NMHC	42 & 43	4.0
CO	34	11.4 (8.5)
	42 & 43	3.5
PM	34	0.54 (0.4)
	42 & 43	0.20

Emission Units 42 and 43 shall be certified to the smoke standards of 40 CFR 1039.105. [40 CFR 60.4205(a), referencing Table 1 and 40 CFR 60.4205(b) referencing 60.4202(a)(2) referencing Appendix I to 40 CFR 1039]

Compliance Demonstration Method:

Compliance shall be demonstrated according to one of the following methods: [40 CFR 60.4211(b)]

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

A. Purchasing an engine certified to emission standards for the same model year and maximum engine power as described in 40 CFR part 1039 and 1042, as applicable. The engine shall be installed and configured according to the manufacturer's specifications;
B. Maintaining records of performance test results for each pollutant for a test conducted on a similar engine. The test shall have been conducted using the same methods specified in 40 CFR 60, Subpart IIII and these methods shall have been followed correctly;
C. Maintaining records of engine manufacturer data indicating compliance with the standards;
D. Maintaining records of control device vendor data indicating compliance with the standards; or
E. Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in 40 CFR 60.4212, as applicable.

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:

a. The permittee shall install a non-resettable hour meter prior to startup of the engine. [40 CFR 60.4209(a)]

b. The permittee shall monitor each engine's hours of operation and fuel usage (in gallons) on a monthly basis. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain 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)]

b. The permittee shall maintain records of each engine's fuel usage (in gallons) on a monthly basis. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

a. If the engine operates for the purpose specified in 40 CFR 60.4211(f)(3)(i), the permittee shall submit an annual report according to the requirements in 40 CFR 60.4214(d)(1) through (3). [40 CFR 60.4214(d)]

b. See **Section F – Monitoring, Recordkeeping, and Reporting Requirements** for additional reporting requirements.

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

Emission Units 36 & 37 Emergency Generator Engines

Description:

Emission Unit	Equipment	Fuel	Maximum Fuel Input	Rated Capacity	Manufacture Date
36	Caterpillar Unit 3	Diesel	36.75 gal/hr, each	755 HP, each	1980
37	Caterpillar Unit 4				1983

APPLICABLE 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:**
   The engines do not have to meet the requirements of 40 CFR 63, Subpart ZZZZ and of 40 CFR 63, Subpart A, including initial notification requirements. [40 CFR 63.6590(b)(3)(iii)]

2. **Emission Limitations:**
   N/A

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 hours of operation and fuel usage (in gallons) for each unit on a monthly basis. [401 KAR 52:020, Section 10]

5. **Specific Recordkeeping Requirements:**
   The permittee shall maintain records of the hours of operation and fuel usage (in gallons) for each unit on a monthly basis. [401 KAR 52:020, Section 10]

6. **Specific Reporting Requirements:**
   See **Section F – Monitoring Recordkeeping, and Reporting Requirements** for general reporting requirements.

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

Emission Unit 41 Non-Emergency Diesel-Fired Generator Engine

Description:

Equipment:	Kubota V3600-T-E3BG Tier IV Engine
Fuel:	ULSD
Maximum Fuel Input:	3.0 gal/hr
Rated Capacity:	53 HP
Manufacture Date:	2013
Construction Commenced:	2013

APPLICABLE REGULATIONS:

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

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:**
   a. The permittee shall use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel. [40 CFR 60.4207(b)]

   b. The permittee shall operate and maintain the 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 part 1068, as they apply. [40 CFR 60.4211(a)]

   c. The engine shall meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII. No further requirements apply for this engine under 40 CFR 63, Subpart ZZZZ. [40 CFR 63.6590(c)(6)]

2. **Emission Limitations:**
   The permittee shall comply with the emission standards for new nonroad CI engines in 40 CFR 1039.101, 1039.102, 1039.104, 1039.105, 1039.107, and 1039.115 and 40 CFR part 1039, Appendix I, as applicable, for all pollutants, for the same model year and maximum engine power [40 CFR 60.4204(b) referencing 40 CFR 60.4201(a)]. The permittee shall operate and maintain the engine that achieves the emission standards over the entire life of the engine [40 CFR 60.4206].

   Compliance Demonstration Method:

   Compliance shall be demonstrated by purchasing an engine certified to the emission standards, for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g). [40 CFR 60.4211(c)]

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

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

4. Specific Monitoring Requirements:

The permittee shall monitor the hours of operation and the amount of diesel combusted (in gallons) on a monthly basis. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the hours of operation and the amount of diesel combusted (in gallons) on a monthly basis. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

See **Section F – Monitoring Recordkeeping, and Reporting Requirements** for general reporting requirements.

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

Emission Unit 45 Emergency Fire Pump Engine for Leachate Pond

Description:

Equipment:	John Deere 6068HF485 Tier III Engine
Fuel:	ULSD
Maximum Fuel Input:	11.4 gal/hr
Rated Capacity:	250 HP
Manufacture Date:	2010
Construction Commenced:	2022

APPLICABLE REGULATIONS:

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

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:**
   a. The permittee shall use diesel fuel that meets the requirements of 40 CFR 1090.305 for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [40 CFR 60.4207(b)]

   b. The permittee shall do all of the following, except as permitted under 40 CFR 60.4211(g): [40 CFR 60.4211(a)]
      i. Operate and maintain the engine and control device according to the manufacturer's emission-related written instructions; [40 CFR 60.4211(a)(1)]
      ii. Change only those emission-related settings that are permitted by the manufacturer; and [40 CFR 60.4211(a)(2)]
      iii. Meet the requirements of 40 CFR part 1068, as they apply. [40 CFR 60.4211(a)(3)]

   c. 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 engine is not operated according to the following requirements, the engine will not be considered an emergency engine under 40 CFR 60, 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 engines in emergency situations. [40 CFR 60.4211(f)(1)]
      ii. The permittee may operate the emergency engine 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 for a maximum of 100 hours per calendar year. The permittee may petition the Administrator for approval of additional hours to be used for maintenance

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

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 engines beyond 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. [40 CFR 60.4211(f)(2) and (f)(2)(i)]

iii. The emergency engine 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. 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. [40 CFR 60.4211(f)(3)]

d. The permittee shall meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements 40 CFR 60, Subpart IIII. No further requirements apply for this engine under 40 CFR 63, Subpart ZZZZ. [40 CFR 63.6590(c)(6)]

2. Emission Limitations:

The permittee shall comply with the following emission standards over the entire life of the engine: [40 CFR 60.4205(c) referencing Table 4 and 40 CFR 60.4206]

Pollutant	Emission Standard in g/HP-hr (g/kW-hr)
NMHC + NO_x	3.0 (4.0)
CO	2.6 (3.5)
PM	0.15 (0.20)

Compliance Demonstration Method:

Compliance shall be demonstrated by purchasing an engine certified to the emission standards for the same model year and NFPA nameplate engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR 60.4211(g).

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:

a. The permittee shall monitor the engine's fuel usage (in gallons) on a monthly basis. [401 KAR 52:020, Section 10]

b. If the engine does not meet the standards applicable to non-emergency engines, the permittee shall install a non-resettable hour meter prior to startup of the engine. [40 CFR 60.4209(a)]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain records of the engine's fuel usage (in gallons) on a monthly basis. [401 KAR 52:020, Section 10]

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

b. If the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the permittee shall maintain 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)]

6. Specific Reporting Requirements:

a. The permittee is not required to submit an initial notification. [40 CFR 60.4214(b)]

b. If the engine operates for the purpose specified in 40 CFR 60.4211(f)(3)(i), the permittee shall submit an annual report according to the requirements in 40 CFR 60.4214(d)(1) through (3). [40 CFR 60.4214(d)]

c. See **Section F – Monitoring, Recordkeeping, and Reporting Requirements** for additional reporting requirements.

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

Emission Unit 44 Process Water System (PWS) Solids Material Transport Operation

Description:
Existing Paved and Unpaved Haul Roads: Hydrated lime delivery to the PWS Hydrated Lime Storage Silo(s). Haul trucks transport the PWS solids material from a temporary storage pile to the on-site landfill.

Emission Unit	Equipment	Maximum Rated Capacity (VMT/yr)	Control(s)	Construction Commenced
44-1	Front End Loader (33.7 tons) on Paved Road	945	Wet Suppression (by Watering); Cleaning; & Road Maintenance	January 2019
44-2	Full PWS Haul Trucks (35.5 tons) on Paved Road	5,402		
44-3	Empty PWS Haul Trucks (15.5 tons) on Paved Road	5,402		
44-5	Full PWS Haul Trucks (35.5 tons) on Unpaved Road	14,856		
44-6	Empty PWS Haul Trucks (15.5 tons) on Unpaved Road	14,856		

APPLICABLE REGULATION:
401 KAR 63:010, *Fugitive emissions*

1. **Operating Limitations:**
   a. A person shall not cause, suffer, or allow any material to be handled, processed, transported, or stored; a building or its appurtenances to be constructed, altered, repaired, or demolished; or a road to be used without taking reasonable precaution to prevent particulate matter (PM) from becoming airborne. Reasonable precautions shall include, as applicable: [401 KAR 63:010, Section 3(1)]
      i. Use, if possible, of water or suitable chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land; [401 KAR 63:010, Section 3(1)(a)]
      ii. Application and maintenance of asphalt, oil, water, or suitable chemicals on roads, materials stockpiles, and other surfaces which can create airborne dusts; [401 KAR 63:010, Section 3(1)(b)]
      iii. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling. Adequate containment methods shall be employed during sandblasting or other similar operations. [401 KAR 63:010, Section 3(1)(c)]
      iv. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne; [401 KAR 63:010, Section 3(1)(d)]
      v. The maintenance of paved roadways in a clean condition; or [401 KAR 63:010, Section 3(1)(e)]

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

vi. The prompt removal of earth or other material from a paved street which earth or other material has been transported thereto by trucking or earth moving equipment or erosion by water. [401 KAR 63:010, Section 3(1)(f)]

b. If dust, fumes, gases, mist, odorous matter, vapors, or any combination thereof escape from a building or equipment in such a manner and amount as to cause a nuisance or to violate any administrative regulation, the secretary may, based on the cause, type, or amount of a fugitive emission, order that the building or equipment in which processing, handling and storage are done be tightly closed and ventilated in such a way that all air and gases and air or gas borne material leaving the building or equipment are treated by removal or destruction of air contaminants before discharge to the open air. [401 KAR 63:010, Section 3(3)]

c. At all times while in motion, open bodied trucks, operating outside company property, transporting materials likely to become airborne shall be covered. [401 KAR 63:010, Section 4(1)]

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

2. Emission Limitations:

A person shall not cause, suffer, or allow visible fugitive dust emissions beyond the lot line of the property on which the emissions originate, as determined by Reference Method 22 of Appendix A in 40 C.F.R. part 60, for: [401 KAR 63:010, Section 3(2)]

a. More than five (5) minutes of emission time during any sixty (60) minutes observation period; or [401 KAR 63:010, Section 3(2)(a)]

b. More than twenty (20) minutes of emission time during any twenty-four (24) hours period. [401 KAR 63:010, Section 3(2)(b)]

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:

a. The permittee shall monitor the reasonable precautions taken to prevent PM from becoming airborne on a daily basis. [401 KAR 52:020, Section 10]

b. The permittee shall perform a qualitative visual observation of the lot line once per day during operation. If fugitive dust emissions beyond the lot line of the property are observed, the permittee shall conduct a U.S. EPA Reference Method 22 (visual determination of fugitive emissions) observation per Appendix A of 40 C.F.R. part 60. In lieu of conducting a Method 22, the permittee may immediately perform a corrective action which results in no visible fugitive dust emissions beyond the lot line of the property. [401 KAR 52:020, Section 10]

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

c. The permittee shall monitor the rate of material hauled (in VMT) and weight of material hauled (in tons) for each emission unit on a monthly basis. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:

a. The permittee shall maintain a log of the reasonable precautions taken to prevent PM from becoming airborne on a daily basis. Notation of the operating status, downtime, or relevant weather conditions are acceptable for entry to the log. [401 KAR 52:020, Section 10]

b. The permittee shall maintain a log of the following: [401 KAR 52:020, Section 10]
   i. Qualitative fugitive emissions observations conducted on a daily basis, including the date, time, initials/identification of observer, and whether any fugitive dust emissions were observed;
   ii. Any Method 22 performed, including field records identified in Method 22; and
   iii. Any corrective action taken with results.

c. The permittee shall maintain records of the rate of material hauled (in VMT) and weight of material hauled (in tons) for each emission unit on a monthly basis. [401 KAR 52:020, Section 10]

d. The permittee shall calculate and maintain records of annual emissions (in tons/yr) for PM for a period of ten (10) years following resumption of operation after the change. The calculations to determine the PWS project's emissions (including fugitive emissions from paved and unpaved roads, PWS hydrated lime silo pneumatic conveying system, PWS solid material handling and PWS solid material piles), with all data used in calculations, shall be maintained. Emission calculations shall be based on the most current AP-42 emission factors for paved and unpaved roadways for that year. [401 KAR 51:017, Section 16 and 401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:

See **Section F – Monitoring Recordkeeping, and Reporting Requirements** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The associated air pollution control equipment for the emission unit shall be operated to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and standard operating procedures. [401 KAR 50:055]

b. See **Section E – Source Control Equipment Requirements** for additional control equipment requirements.

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

Emission Unit 46 **Two Parts Washers**

Description:

Safety-Kleen Premium Solvent (Virgin and Recycled)

Composition:	Petroleum distillates, hydrotreated light
Maximum Vapor Pressure at 68°F:	0.5 mmHg
Maximum Throughput:	0.006 gal/hour, each
Construction Date:	5/1/2014 for 46-01, CCR Treatment Maintenance Shop; 4/1/2020 for 46-02, PWT Maintenance Shop

APPLICABLE REGULATIONS:

401 KAR 59:185, *New solvent metal cleaning equipment*

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

1. **Operating Limitations:**
   a. Waste solvent shall not be disposed of or transferred to another party so that greater than twenty (20) percent by weight of the waste solvent can evaporate into the atmosphere. Waste solvent shall be stored only in covered containers. [401 KAR 59:185, Section 4(2)(a)]

   b. The degreaser cover shall be closed if not handling parts in the cleaner. [401 KAR 59:185, Section 4(2)(b)]

   c. Cleaned parts shall be drained for a minimum of fifteen (15) seconds, or until dripping ceases, whichever is longer. [401 KAR 59:185, Section 4(2)(c)]

   d. The flushing of parts with a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaner. The solvent flow shall be directed downward to avoid turbulence at the air-solvent interface so as to prevent the solvent from splashing outside of the cold cleaner. [401 KAR 59:185, Section 4(2)(d)]

   e. Work area fans shall be positioned so that air is not directed across the opening of the cold cleaner. [401 KAR 59:185, Section 4(2)(e)]

   f. The use of an air-agitated solvent bath is prohibited. A pump-agitated solvent bath shall be operated so as to produce no observable splashing of the solvent against either the tank wall or the parts that are being cleaned. [401 KAR 59:185, Section 4(2)(f)]

   g. The cold cleaner shall be free of all liquid leaks. Auxiliary cleaning equipment such as pumps, water separators, steam traps, or distillation units shall not have any visible leaks, tears, or cracks. [401 KAR 59:185, Section 4(2)(g)]

   h. Spills that occur during solvent transfer shall be cleaned immediately. Wipe rags, or other absorbent equipment and materials, used to clean the spill shall be stored in a covered container for disposal unless storage of these items is prohibited by fire protection authorities. [401 KAR 59:185, Section 4(2)(h)]

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

Compliance Demonstration Method:
The permittee shall have operating procedures readily available at each parts washer station. See **5. Specific Recordkeeping Requirements.**

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

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

3. Testing Requirements:
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 permittee shall monitor the amount of solvent used (in gallons), recording the name, density, and % VOC, on a monthly basis. [401 KAR 52:020, Section 10]

5. Specific Recordkeeping Requirements:
The permittee shall maintain records of the amount of solvent cleaner used (in gallons), recording the name, density, and % VOC, on a monthly basis. [401 KAR 52:020, Section 10]

6. Specific Reporting Requirements:
See **Section F – Monitoring Recordkeeping, and Reporting Requirements** for general reporting requirements.

7. Specific Control Equipment Operating Conditions:

a. The permittee shall install, maintain and operate the control equipment that apply to this type of degreaser as described in 401 KAR 59:185, Section 4. [401 KAR 59:185, Section 3]

b. The cleaner shall be equipped with a cover. If the solvent volatility is greater than fifteen (15) mmHg measured at 100°F or if the solvent is agitated or heated, then the cover shall be designed so that it can be easily operated with one hand. [401 KAR 59:185 Section 4(1)(a)]

c. The cleaner shall be equipped with a drainage facility so that solvent that rains off parts removed from the cleaner will return to the cleaner. If the solvent volatility is greater than

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

thirty-two (32) mm Hg measured at 100°F then the drainage facility shall be internal so that parts are enclosed under the cover while draining. The drainage facility may be external if the cabinet determines that an internal type cannot ft into the cleaning system. [401 KAR 59:185, Section 4(1)(b)]

d. A permanent, conspicuous label, summarizing the operating requirements in specified in 401 KAR 59:185, Section 4(2) shall be installed near the cleaner. [401 KAR 59:185, Section 4(1)(c)]

e. If used, the solvent spray shall be a fluid stream, not a fine, atomized, or shower type spray, and at a pressure that does not cause excessive splashing. [401 KAR 59:185, Section 4(1)(d)]

f. If the solvent volatility is greater than thirty-two (32) mmHg measured at 100°F or if the solvent is heated above 120°, then one of the following control devices shall be used: [401 KAR 59:185, Section 4(1)(e)]
   i. Freeboard height that gives a freeboard ratio greater than or equal to seven-tenths (0.7); [401 KAR 59:185, Section 4(1)(e)1.]
   ii. Water cover, solvent shall be insoluble in and heavier than water; or [401 KAR 59:185, Section 4(1)(e)2.]
   iii. Other systems of equivalent control, such as refrigerated chiller or carbon adsorption. [401 KAR 59:185, Section 4(1)(e)3.]
   iv. See Section E – Source Control Equipment Requirements for additional control equipment 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.

Description	Generally Applicable Regulation
1. Fuel Oil Storage Tanks: 1 x 442,250 gal 1 x 100,000 gal 1 x 20,000 gal 1 x 12,000 gal 1 x 1,000 gal 2 x 150 gal 1 x 300 gal 1 x 550 gal 1 x 190 gal 1 x 106 gal 1 x 100 gal 2 x 500 gal 2 x 1,039 gal 2 x 500 gal (kerosene)	N/A
2. Unleaded Gasoline Storage Tanks: 1 x 1,000 gal (with submerged fill pipe)	401 KAR 59:050
3. Lubricating Oil Storage Tanks: 4 x 15,000 gal 3 x 400 gal (motor oil) 1 x 300 gal (gear compound) 2 x 1,000 gal (used oil) 5 x 300 gal (used oil) 1 x 500 gal (used oil)	N/A
4. SO_3 Mitigation System	401 KAR 59:010
5. Removed	N/A
6. Paved and Unpaved Roadways (at plant)	401 KAR 63:010
7. Infrequent Burning of de minimis quantities of Used Oil for Energy Recovery	N/A
8. Limestone Slurry Transfer from Slurry Tanks to Scrubbers	401 KAR 59:010
9. Bottom Ash Handling Process	401 KAR 63:010
10. Fly Ash Handling Process	401 KAR 63:010
11. Gypsum Processing (no crushing or grinding)	401 KAR 63:010

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

12. Fly Ash Separator Units (4)	401 KAR 59:010
13. Fly Ash Storage Silos (3)	401 KAR 59:010
14. CCR Landfill Truck Loading Station	401 KAR 63:010
15. Bottom Ash Transport	401 KAR 63:010
16. Fly Ash Transport	401 KAR 63:010
17. Gypsum Transport	401 KAR 63:010
18. Storage Pile at CCR Landfill Truck Station	401 KAR 63:010
19. Active Area of the CCR Landfill (wind erosion)	401 KAR 63:010
20. Powdered Activated Carbon Handling for each boiler	401 KAR 63:010
21. Turbine Oil Reservoirs for Units 1-4 4 x 11,500 gal	N/A
22. FGD Forced Oxidation Blower Lube Oil Cooler Turbine Oil Reservoirs for Units 1-4 9 x 110 gal	N/A
23. Coal mill Gear Box Oil Reservoirs for Units 1-4 24 x 375 gal	N/A
24. FGD Hydraulic Control Valve Hydraulic Fluid Reservoirs for Units 1-4 4 x 165 gal	N/A
25. Electro-Hydraulic Control System EH Fluid Reservoirs for Units 2, 3, and 4 3 x 375 gal	N/A
26. Electro-Hydraulic Control System EH Fluid Reservoir for Unit 1 1 x 165 gal	N/A
27. ID Fan Lube Oil Turbine Oil Reservoirs for Units 1 and 2 2 x 180 gal 4 x 330 gal	N/A
28. Hydrogen Seal Oil Turbine Oil Reservoirs for Units 2, 3, and 4 3 x 605 gal	N/A
29. Hydrogen Seal Oil Turbine Oil Reservoir for Unit 1 1 x 350 gal	N/A
30. Boiler Feed Pump Turbine Oil Reservoir for Unit 1 2 x 900 gal	N/A
31. Boiler Feed Pump Turbine Oil Reservoir for Unit 2 2 x 1,000 gal	N/A
32. Limestone Ball Mill Lubricating Oil Reservoirs	N/A

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

3 x 250 gal	
33. Coal Unloading Bucket Drive Lubricating Oil Reservoir 1 x 150 gal	N/A
34. ID Fan Lubricating Oil Reservoirs for Units 3 and 4 8 x 330 gal	N/A
35. Turbine Oil Reservoirs for Units 3 and 4 2 x 500 gal	N/A
36. Limestone Surge Bin with Dust Collector	401 KAR 59:010
37. Removed	N/A
38. Liquid Hg Control Additives	N/A
39. Removed	N/A
40. Process Water System (PWS) Hydrated Lime Silo(s) Pneumatic Conveying System (Max. 2,500 tpy)	401 KAR 59:010
41. PWS Solid Material Handling	401 KAR 63:010
42. PWS Solid Material Piles (wind erosion)	401 KAR 63:010
43. Pre-1979 Parts Washers (x7)	401 KAR 63:020

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. PM, SO_2, SAM, NO_x, NMHC+NO_x, Hg, visible (opacity), and CO emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. **40 CFR 63, Subpart UUUUU Requirements for Emission Unit 01, 02, 03, and 04:**

   1. Operating Limitations:

   a. The permittee shall conduct a tune-up of the burner and combustion controls, as specified in 40 CFR 63.10000(e)(1) through (9), at least each thirty-six (36) calendar months, or each forty-eight (48) calendar months if neural network combustion optimization software is employed, as specified in 40 CFR 63.10021(e). [40 CFR 63.9991(a)(1) referencing Table 3, Item 1.; 40 CFR 63.10000(e); 40 CFR 63.10006(i)]

   Compliance Demonstration Method:

   Prior to January 1, 2024, the permittee shall report the tune-up date electronically, in a PDF file, in the semiannual compliance report, as specified in 40 CFR 63.10031(f)(4) and (6) and, if requested by the Administrator, in hard copy, as required in 40 CFR 63.10031(f)(5). On and after January 1, 2024, report the tune-up date electronically in the quarterly compliance report, in accordance with 40 CFR 63.10031(g) and Section 10.2 of Appendix E of 40 CFR 63, Subpart UUUUU. [40 CFR 63.10021(e)(9)]

   b. For startup, the permittee shall use either of the following work practice standards: [40 CFR 63.9991(a)(1) and 40 CFR 63.10000(a), referencing Table 3, Item 3.a.]

      i. If the permittee chooses to comply using paragraph (1) of the definition of "startup" in 40 CFR 63.10042, the permittee shall operate all CMS during startup. Startup means either the first-ever firing of fuel in Emission Units 01, 02, 03, or 04 for the purpose of producing electricity, or the firing of fuel in Emission Units 01, 02, 03, or 04 after a shutdown event for any purpose. Startup ends when any of the steam from Emission Units 01, 02, 03, or 04 is used to generate electricity for sale over the grid or for any other purpose (including on site use). For startup of Emission Unit 01, 02, 03, or 04, the permittee shall use clean fuels as defined in 40 CFR 63.10042 for ignition. Once the permittee converts to firing coal, residual oil, or solid oil-derived fuel, the permittee shall engage all of the applicable control technologies except dry scrubber and SCR. The permittee shall start the dry scrubber and SCR systems, if present, appropriately to comply with relevant standards applicable during normal operation.

      ii. If the permittee chooses to comply using paragraph (2) of the definition of "startup" in 40 CFR 63.10042, the permittee shall operate all CMS during startup, collect appropriate data, and calculate the pollutant emission rate for each hour of startup. For startup of Emission Unit 01, 02, 03, or 04, the permittee shall use one or a

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

combination of the clean fuels defined in 40 CFR 63.10042 to the maximum extent possible, taking into account considerations such as boiler or control device integrity, throughout the startup period. The permittee shall have sufficient clean fuel capacity to engage and operate the PM control devices within one hour of adding coal, residual oil, or solid oil-derived fuel to the unit. The permittee shall meet the startup period work practice requirements as identified in 40 CFR 63.10020(e). Once the permittee converts to firing coal, residual oil, or solid oil-derived fuel, the permittee shall vent emissions to the main stack(s). The permittee shall comply with the applicable emission limits beginning with the hour after startup ends. The permittee shall engage and operate the PM control(s) within 1 hour of first firing of coal, residual oil, or solid oil-derived fuel. The permittee shall start all other control devices as expeditiously as possible, considering safety and manufacturer/supplier recommendations, but, in any case, when necessary to comply with the standards made applicable to the units by a permit limit or a rule other than 40 CFR 63, Subpart UUUUU that require operation of the control devices. [40 CFR 63.9991(a)(1) and 40 CFR 63.10000(a), referencing Table 3, Item 3.a.(2)]

Compliance Demonstration Method:

The permittee shall maintain records during periods of startup and shutdown. The permittee shall provide reports concerning activities and periods of startup, as specified in 40 CFR 63.10011(g) and 40 CFR 63.10021(h) and (i). If the permittee elects to use paragraph (2) of the definition of startup in 40 CFR 63.10042, the permittee shall report the applicable information in 40 CFR 63.10031(c)(5) concerning startup periods as follows: For startup periods that occur on or prior to December 31, 2023, in PDF files in the semiannual compliance report; for startup periods that occur on or after January 1, 2024, quarterly, in PDF files, according to 40 CFR 63.10031(i). [40 CFR 63.9991(a)(1) and 40 CFR 63.10000(a), referencing Table 3, Item 3.a.(1)]

c. During shutdown, the permittee shall operate all CMS, collect appropriate data, and calculate the pollutant emission rate for each hour of shutdown for those pollutants for which a CMS is used. The permittee shall vent emissions to the main stacks and operate all applicable control devices and continue to operate those control devices after the cessation of coal fuel being fed into Emission Unit 01, 02, 03, or 04 and for as long as possible thereafter considering operational and safety concerns. In any case, the permittee shall operate controls when necessary to comply with other standards made applicable to Emission Unit 01, 02, 03, or 04 by a permit limit or rule that requires operation of the control devices. Shutdown ends when there is both no electricity being generated, and no fuel being fired in the boiler. [40 CFR 63.9991(a)(1) and 40 CFR 63.10000(a), referencing Table 3, Item 4.]

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

Shutdown means the period in which cessation of operation of Emission Unit 01, 02, 03, or 04 is initiated for any purpose. Shutdown begins when Emission Unit 01, 02, 03, or 04 no longer generates electricity or makes useful thermal energy (such as heat or steam) for industrial, commercial, heating, or cooling purposes or when no coal, liquid oil, syngas, or solid oil-derived fuel is being fired in Emission Unit 01, 02, 03, or 04, whichever is earlier. Shutdown ends when Emission Unit 01, 02, 03, or 04 no longer generates electricity or makes useful thermal energy (such as steam or heat) for industrial, commercial, heating, or cooling purposes, and no fuel is being fired in Emission Units 01, 02, 03, or 04. Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown. [40 CFR 63.10042]

Compliance Demonstration Method:

The permittee shall collect monitoring data during shutdown periods, as specified in 40 CFR 63.10020(a). The permittee shall keep records during shutdown periods, as provided in 40 CFR 63.10032 and 40 CFR 63.10021(h). The permittee shall provide reports concerning activities and shutdown periods, as specified in 40 CFR 63.10011(g), 40 CFR 63.10021(i) and 40 CFR 63.10031. If the permittee elects to use paragraph (2) of the definition of startup in 40 CFR 63.10042, the permittee shall report the applicable information in 40 CFR 63.10031(c)(5) concerning shutdown periods as follows: For shutdown periods that occur on or prior to December 31, 2023, in PDF files in the semiannual compliance report; for shutdown periods that occur on or after January 1, 2024, quarterly, in PDF files, according to 40 CFR 63.10031(i). [40 CFR 63.9991(a)(1) and 40 CFR 63.10000(a), referencing Table 3, Item 4.]

d. At all times, the permittee shall operate and maintain the coal-fired boilers, 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 EPA 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 63.10000(b)]

2. Emission Limitations:

a. The permittee shall comply with all applicable emission limits at all times except for periods that meet the applicable definitions of startup and shutdown in 40 CFR 63, Subpart UUUUU. [40 CFR 63.10000(a), referencing Table 3, Item 3.a.(1)]

Compliance Demonstration Method:

The permittee shall collect monitoring data during startup and shutdown periods, as specified in 40 CFR 63.10020(a) and (e). The permittee shall maintain records during periods of startup and shutdown, as provided in 40 CFR 63.10032 and 40 CFR 63.10021(h). The permittee shall provide reports concerning activities and periods of startup and shutdown, as specified in 40 CFR 63.10011(g), 40 CFR 63.10021(i), and 40 CFR 63.10031. [40 CFR 63, Subpart UUUUU, Table 3, Items 3.d. and 4.]

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

b. Emission from Emission Units 01, 02, 03, and 04 shall not exceed the limitations in the table below: [40 CFR 63.9991(a)(1), referencing Table 2, Item 1]

Pollutant	Emission Limit	Compliance Demonstration
PM	0.030 lb/MMBtu **OR** 0.30 lb/MWh (gross output)	Quarterly Stack Testing **OR** PM CEMS [Table 5. Item 1.; and Table 7. also 40 CFR 63.10005]
OR		
Total Non-Hg HAP Metals	0.000050 lb/MMBtu **OR** 0.50 lb/GWh	Quarterly Stack Testing [Table 5. Item 2.; and Table 7. also 40 CFR 63.10005]
OR		
All of these: Antimony	0.80 lb/TBtu **OR** 0.0080 lb/GWh	Quarterly Stack Testing for Each [Table 5. Item 2.; and Table 7. also 40 CFR 63.10005]
Arsenic	1.1 lb/TBtu **OR** 0.020 lb/GWh	
Beryllium	0.20 lb/TBtu **OR** 0.0020 lb/GWh	
Cadmium	0.30 lb/TBtu **OR** 0.0030 lb/GWh	
Chromium	2.8 lb/TBtu **OR** 0.0030 lb/GWh	
Cobalt	0.80 lb/TBtu **OR** 0.0080 lb/GWh	
Lead	1.2 lb/TBtu **OR** 0.020 lb/GWh	
Manganese	4.0 lb/TBtu **OR** 0.050 lb/GWh	
Nickel	3.5 lb/TBtu **OR** 0.040 lb/GWh	
Selenium	5.0 lb/TBtu **OR** 0.060 lb/GWh	
AND		

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

Pollutant	Emission Limit	Compliance Demonstration
HCl	0.0020 lb/MMBtu **OR** 0.020 lb/MWh	Quarterly Stack Testing **OR** HCl/HF CEMS [Table 5. Item 3.; and Table 7. Also 40 CFR 63.10005]
OR		
SO_2	0.20 lb/MMBtu **OR** 1.5 lb/MWh	SO_2 CEMS. [Table 5. Item 5.; and Table 7.]
AND		
Hg	1.2 lb/TBtu, **OR** 0.013 lb/GWh	Hg CEMS. [Table 5, Item 4.; and Table 7. also 40 CFR 63.10005.] **OR** Sorbent Trap Monitoring. [Table 5. Item 4; and Table 7. also 40 CFR 63.10005.]

c. If, at some future date, the permittee wishes to switch from the limit specified in the initial notification of compliance status, the permittee shall follow the procedures and meet the conditions of 40 CFR 63.10030(e)(7)(iii)(A) through (C). [40 CFR 63.10030(e)(7)(iii)]

3. Testing Requirements:

a. Test protocols shall be submitted for the Division's approval a minimum of sixty (60) days prior to the scheduled test date. [401 KAR 50:045, Section 1]

b. The permittee shall comply with all applicable provisions of 40 CFR 63.10005 through 40 CFR 63.10009 and 40 CFR 63.10011. [40 CFR 63.9981]

c. For Emission Units 01, 02, 03, and 04, the permittee shall demonstrate compliance with the requirements of 40 CFR 63, Subpart UUUUU by performance testing, which may include the use of CEMS in some cases, according to Table 5 of 40 CFR 63, Subpart UUUUU and calculate the results of the testing in units of the applicable emission standard. Initial performance testing is required for all pollutants limited under 40 CFR 63, Subpart UUUUU. [40 CFR 63.10000(c); 40 CFR 63.10011(a); & 40 CFR 63.10021(d)(2)]

d. The permittee may skip performance testing in those quarters during which less than 168 boiler operating hours occur for Emission Unit 01, 02, 03, or 04, except that a performance test shall be conducted at least once every calendar year. [40 CFR 63.10021(d)(1)]

4. Monitoring Requirements:

The permittee shall comply with all applicable continuous monitoring requirements of 40 CFR 63.10010, 40 CFR 63.10020, and 40 CFR 63.10021. [40 CFR 63.9981]

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

5. **Recordkeeping Requirements:**
   The permittee shall maintain records according to 40 CFR 63.10032 and 63.10033. [40 CFR 63.9981]

6. **Reporting Requirements**
   The permittee shall submit reports according to 40 CFR 63.10031. [40 CFR 63.9981]

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
Florence Regional Office
8020 Veterans Memorial Drive, Suite 110
Florence, KY 41042

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

No construction authorized by this permit (V-23-016 R2).

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.

   b. The permittee shall comply with all applicable requirements and conditions of the Acid Rain Permit and the Phase II permit application (including the Phase II NOx compliance plan and averaging plan, if applicable) incorporated into the Title V permit issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

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;

SECTION G - GENERAL PROVISIONS (CONTINUED)

(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 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*.

SECTION G - GENERAL PROVISIONS (CONTINUED)

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

SECTION J - ACID RAIN

1. Statutory and Regulatory Authority

In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Kentucky Environmental and Public Protection Cabinet, Division for Air Quality issues this permit pursuant to 401 KAR 52:020, Title V Permits, 401 KAR 52:060, Acid Rain Permits, and 40 CFR Part 76.

2. Permit Requirements:

This Acid Rain Permit covers Acid Rain Units 1-4 (Emission Units 01-04). These are coal-fired base load electric generating units. The Acid Rain Permit Application and NO_x Compliance Plan received on July 3, 2007 are hereby incorporated into and made part of this permit and the permittee shall comply with the standard requirements and special provisions set forth in the application [40 CFR 72.9(a)(2)].

3. Acid Rain Program Emission and Operating Limitations:

The applicable Acid Rain emission limitations for the permittee are set in 40 CFR 73.10, Table 2, 40 CFR 76.7, and 40 CFR 76.11 and they are tabulated in the table below:

Affected Unit: 1

Year for SO_2 Allowances	2024	2025	2026	2027	2028
40 CFR Part 73.10	12,272*	12,272*	12,272*	12,272*	12,272*

NO_x Limits and Requirements

(i) Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NO_x emissions averaging plan for this unit. This plan is effective for calendar year 2024 through 2028. Under this plan, determined in accordance with 40 CFR Part 75, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.45 lb/MMBtu.

(ii) In addition, the actual BTU-weighted annual average NO_x emissions rate for the unit in the plan shall be less than or equal to the BTU-weighted annual average NO_x emissions rate for the same unit had it been operated, during the same period of time, in compliance with the applicable emissions limitations under 40 CFR Part 76.5, 76.6, or 76.7.

(iii) If the designated representative demonstrates that the requirement of condition (ii) (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emissions limitation set in condition (i).

In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.

*** The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).**

SECTION J -ACID RAIN PERMIT (CONTINUED)

Affected Unit: 2					
Year for SO_2 Allowances	2024	2025	2026	2027	2028
40 CFR Part 73.10	10,038*	10,038*	10,038*	10,038*	10,038*

NO_x Limits and Requirements

(i) Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NO_x emissions averaging plan for this unit. This plan is effective for calendar year 2024 through 2028. Under this plan, determined in accordance with 40 CFR Part 75, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.40 lb/MMBtu.

(ii) In addition, the actual BTU-weighted annual average NO_x emissions rate for the unit in the plan shall be less than or equal to the BTU-weighted annual average NO_x emissions rate for the same unit had it been operated, during the same period of time, in compliance with the applicable emissions limitations under 40 CFR Part 76.5, 76.6, or 76.7.

(iii) If the designated representative demonstrates that the requirement of condition (ii) (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emissions limitation set in condition (i).

In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.

*** The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).**

Affected Unit: 3					
Year for SO_2 Allowances	2024	2025	2026	2027	2028
40 CFR Part 73.10	13,985*	13,985**	13,985*	13,985*	13,985*

NO_x Limits and Requirements

(i) Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NO_x emissions averaging plan for this unit. This plan is effective for calendar year 2024 through 2028. Under this plan, determined in accordance with 40 CFR Part 75, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.46 lb/MMBtu.

(ii) In addition, the actual BTU-weighted annual average NO_x emissions rate for the unit in the plan shall be less than or equal to the BTU-weighted annual average NO_x emissions rate for the same

SECTION J -ACID RAIN PERMIT (CONTINUED)

unit had it been operated, during the same period of time, in compliance with the applicable emissions limitations under 40 CFR Part 76.5, 76.6, or 76.7.

(iii) If the designated representative demonstrates that the requirement of condition (ii) (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emissions limitation set in condition (i).

In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.

*** The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).**

Affected Unit: 4

Year for SO_2 Allowances	2024	2025	2026	2027	2028
40 CFR Part 73.10	13,742*	13,742*	13,742*	13,742*	13,742*

NO_x Limits and Requirements

(i) Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NO_x emissions averaging plan for this unit. This plan is effective for calendar year 2024 through 2028. Under this plan, determined in accordance with 40 CFR Part 75, this unit's NO_x emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.46 lb/MMBtu.

(ii) In addition, the actual BTU-weighted annual average NO_x emissions rate for the unit in the plan shall be less than or equal to the BTU-weighted annual average NO_x emissions rate for the same unit had it been operated, during the same period of time, in compliance with the applicable emissions limitations under 40 CFR Part 76.5, 76.6, or 76.7.

(iii) If the designated representative demonstrates that the requirement of condition (ii) (as set forth in 40 CFR 76.11(d)(1)(ii)(A)) is met for a year under the plan, then this unit shall be deemed to be in compliance for that year with its alternative contemporaneous annual emissions limitation set in condition (i).

In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.

*** The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitates a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).**

SECTION J -ACID RAIN PERMIT (CONTINUED)

4. Compliance Plan:

a. The permittee shall operate in compliance with the requirements contained in the Acid Rain application and incorporated into this permit [40 CFR 72.9].

b. The Division approves the NO_X Average Plan submitted for these units for the NO_x Emissions Compliance Plan, effective for the duration of this permit. Under this plan, a unit's NO_x emissions shall not exceed the applicable annual average alternative contemporaneous emissions limitation (ACEL) listed in Subsection 3(a). [40 CFR 76]

(1) The actual Btu-weighted annual average NO_X emission rate for the units in the plan shall be less than or equal to the Btu-weighted annual average NO_x emission rate for the same unit had it been operated, during the same period of time, in compliance with the individual applicable emission limitations under 40 CFR 76.5, 76.6, or 76.7 and listed in Subsection 3(a).

(2) For each unit, if the designated representative demonstrates that the requirement of Subsection 4(b)(1) is met for the plan year, then the unit shall be deemed to be in compliance for the year with its ACEL and associated heat input limit in Subsection 3.

(3) If the designated representative cannot make the demonstration in Subsection 4(b)(1), according to 40 CFR 76.11(d)(1)(ii), for the plan year and if a unit fails to meet the annual average ACEL or has a heat input greater than the applicable value listed in Subsection 3, then excess emissions of NO_x have occurred during the year for that unit.

(4) As an alternative means of compliance demonstration, this emission unit shall not cause the system weighted average to exceed the applicable emission rate in accordance with 40 CFR 76.11(d)(B)(ii).

SECTION K – CLEAN AIR INTERSTATE RULE (CAIR)

CSAPR implementation is now in place and replaces requirements under EPA's 2005 Clean Air Interstate Rule.

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR)

The CSAPR subject units, and the unit-specific monitoring provisions at this source, are identified in the following tables. These units are subject to the requirements for the CSAPR NO_x Annual Trading Program, CSAPR NO_x Ozone Season Group 2 Trading Program, and CSAPR SO_2 Group 1 Trading Program.

Unit ID: 01-04, Four Pulverized Coal-Fired, Dry Bottom, Tangentially-Fired Boilers					
Parameter	Continuous emission monitoring system or systems (CEMS) requirements pursuant to 40 CFR part 75, subpart B (for SO_2 monitoring) and 40 CFR part 75, subpart H (for NO_X monitoring)	Excepted monitoring system requirements for gas- and oil-fired units pursuant to 40 CFR part 75, appendix D	Excepted monitoring system requirements for gas- and oil-fired peaking units pursuant to 40 CFR part 75, appendix E	Low Mass Emissions excepted monitoring (LME) requirements for gas- and oil-fired units pursuant to 40 CFR 75.19	EPA-approved alternative monitoring system requirements pursuant to 40 CFR part 75, subpart E
SO_2	X				
NO_X	X				
Heat Input	X				

1. The above description of the monitoring used by a unit does not change, create an exemption from, or otherwise affect the monitoring, recordkeeping, and reporting requirements applicable to the unit under 40 CFR 97.430 through 97.435 (CSAPR NO_X Annual Trading Program), 97.830 through 97.835 (CSAPR NO_X Ozone Season Group 2 Trading Program), and 97.630 through 97.635 (CSAPR SO_2 Group 1 Trading Program). The monitoring, recordkeeping and reporting requirements applicable to each unit are included below in the standard conditions for the applicable CSAPR trading programs.

2. Owners and operators must submit to the Administrator a monitoring plan for each unit in accordance with 40 CFR 75.53, 75.62 and 75.73, as applicable. The monitoring plan for each unit is available at the EPA's website: http://www.epa.gov/airmarkets.

3. Owners and operators that want to use an alternative monitoring system must submit to the Administrator a petition requesting approval of the alternative monitoring system in accordance with 40 CFR part 75, subpart E and 40 CFR 75.66 and 97.435 (CSAPR NO_X Annual Trading Program), 97.835 (CSAPR NO_X Ozone Season Group 2 Trading Program), and/or 97.635 (CSAPR SO_2 Group 1 Trading Program). The Administrator's response approving or disapproving any petition for an alternative monitoring system is available on the EPA's website at http://www.epa.gov/airmarkets/part-75-petition-responses.

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

4. Owners and operators that want to use an alternative to any monitoring, recordkeeping, or reporting requirement under 40 CFR 97.430 through 97.434 (CSAPR NO_X Annual Trading Program), 97.830 through 97.834 (CSAPR NO_X Ozone Season Group 2 Trading Program), and/or 97.630 through 97.634 (CSAPR SO_2 Group 1 Trading Program) must submit to the Administrator a petition requesting approval of the alternative in accordance with 40 CFR 75.66 and 97.435 (CSAPR NO_X Annual Trading Program), 97.835 (CSAPR NO_X Ozone Season Group 2 Trading Program), and/or 97.635 (CSAPR SO_2 Group 1 Trading Program). The Administrator's response approving or disapproving any petition for an alternative to a monitoring, recordkeeping, or reporting requirement is available on the EPA's website at https://www.epa.gov/airmarkets/data-resources.

5. The descriptions of monitoring applicable to the unit included above meet the requirement of 40 CFR 97.430 through 97.434 (CSAPR NO_X Annual Trading Program), 97.830 through 97.834 (CSAPR NO_X Ozone Season Group 2 Trading Program), and 97.630 through 97.634 (CSAPR SO_2 Group 1 Trading Program), and therefore minor permit modification procedures, in accordance with 40 CFR 70.7(e)(2)(i)(B) or 71.7(e)(1)(i)(B), may be used to add or change this unit's monitoring system description.

CSAPR NO_X Annual Trading Program Requirements (40 CFR 97.406)

a) Designated representative requirements.
The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.413 through 97.418.

b) Emissions monitoring, reporting, and recordkeeping requirements.

1) The owners and operators, and the designated representative, of each CSAPR NO_X Annual source and each CSAPR NO_X Annual unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.430 through 97.435.

2) The emissions data determined in accordance with 40 CFR 97.430 through 97.435 shall be used to calculate allocations of CSAPR NO_X Annual allowances under 40 CFR 97.411(a)(2) and (b) and 97.412 and to determine compliance with the CSAPR NO_X Annual emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.430 through 97.435 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

c) NO_X emissions requirements.

1) CSAPR NO_X Annual emissions limitation.
   i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO_X Annual source and each CSAPR NO_X Annual unit at the source shall hold, in the source's compliance account, CSAPR NO_X Annual allowances available for deduction for such control period under 40 CFR 97.424(a) in

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

an amount not less than the tons of total NO_X emissions for such control period from all CSAPR NO_X Annual units at the source.

ii) If total NO_X emissions during a control period in a given year from the CSAPR NO_X Annual units at a CSAPR NO_X Annual source are in excess of the CSAPR NO_X Annual emissions limitation set forth in paragraph (c)(1)(i) above, then:
   A) The owners and operators of the source and each CSAPR NO_X Annual unit at the source shall hold the CSAPR NO_X Annual allowances required for deduction under 40 CFR 97.424(d); and

   B) The owners and operators of the source and each CSAPR NO_X Annual unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAA and the Clean Air Act.

2) CSAPR NO_X Annual assurance provisions.
   i) If total NO_X emissions during a control period in a given year from all CSAPR NO_X Annual units at CSAPR NO_X Annual sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_X emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO_X Annual allowances available for deduction for such control period under 40 CFR 97.425(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.425(b), of multiplying—
      (A) The quotient of the amount by which the common designated representative's share of such NO_X emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_X emissions exceeds the respective common designated representative's assurance level; and

      (B) The amount by which total NO_X emissions from all CSAPR NO_X Annual units at CSAPR NO_X Annual sources in the state for such control period exceed the state assurance level.

   ii) The owners and operators shall hold the CSAPR NO_X Annual allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after the year of such control period.

   iii) Total NO_X emissions from all CSAPR NO_X Annual units at CSAPR NO_X Annual sources in the state during a control period in a given year exceed the state assurance

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level if such total NO_X emissions exceed the sum, for such control period, of the state NO_X Annual trading budget under 40 CFR 97.410(a) and the state's variability limit under 40 CFR 97.410(b).

iv) It shall not be a violation of 40 CFR part 97, subpart AAAAA or of the Clean Air Act if total NO_X emissions from all CSAPR NO_X Annual units at CSAPR NO_X Annual sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total NO_X emissions from the CSAPR NO_X Annual units at CSAPR NO_X Annual sources in the state during a control period exceeds the common designated representative's assurance level.

v) To the extent the owners and operators fail to hold CSAPR NO_X Annual allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,

A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

B) Each CSAPR NO_X Annual allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart AAAAA and the Clean Air Act.

3) Compliance periods.

i) A CSAPR NO_X Annual unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015, or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.

ii) A CSAPR NO_X Annual unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.430(b) and for each control period thereafter.

4) Vintage of CSAPR NO_X Annual allowances held for compliance.

i) A CSAPR NO_X Annual allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a CSAPR NO_X Annual allowance that was allocated or auctioned for such control period or a control period in a prior year.

ii) A CSAPR NO_X Annual allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (c)(2)(i) through (iii) above for a control period in a given year must be a CSAPR NO_X Annual allowance that was allocated or auctioned for a control period in a prior year or the control period in the given year or in the immediately following year.

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5) Allowance Management System requirements. Each CSAPR NO_X Annual allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart AAAAA.

6) Limited authorization. A CSAPR NO_X Annual allowance is a limited authorization to emit one ton of NO_X during the control period in one year. Such authorization is limited in its use and duration as follows:
   i) Such authorization shall only be used in accordance with the CSAPR NO_X Annual Trading Program; and

   ii) Notwithstanding any other provision of 40 CFR part 97, subpart AAAAA, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

7) Property right. A CSAPR NO_X Annual allowance does not constitute a property right.

d) Title V permit requirements.

1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_X Annual allowances in accordance with 40 CFR part 97, subpart AAAAA.

2) A description of whether a unit is required to monitor and report NO_X emissions using a continuous emission monitoring system (under 40 CFR part 75, subpart H), an excepted monitoring system (under 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (under 40 CFR 75.19), and an alternative monitoring system (under 40 CFR part 75, subpart E) in accordance with 40 CFR 97.430 through 97.435 may be added to, or changed in, a title V permit using minor permit modification procedures in accordance with 40 CFR 70.7(e)(2) and 71.7(e)(1), provided that the requirements applicable to the described monitoring and reporting (as added or changed, respectively) are already incorporated in such permit. This paragraph explicitly provides that the addition of, or change to, a unit's description as described in the prior sentence is eligible for minor permit modification procedures in accordance with 70.7(e)(2)(i)(B) and 71.7(e)(1)(i)(B).

e) Additional recordkeeping and reporting requirements.

1) Unless otherwise provided, the owners and operators of each CSAPR NO_X Annual source and each CSAPR NO_X Annual unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
   i) The certificate of representation under 40 CFR 97.416 for the designated representative for the source and each CSAPR NO_X Annual unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

of the submission of a new certificate of representation under 40 CFR 97.416 changing the designated representative.

ii) All emissions monitoring information, in accordance with 40 CFR part 97, subpart AAAAA.

iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO_X Annual Trading Program.

2) The designated representative of a CSAPR NO_X Annual source and each CSAPR NO_X Annual unit at the source shall make all submissions required under the CSAPR NO_X Annual Trading Program, except as provided in 40 CFR 97.418. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

f) Liability.

1) Any provision of the CSAPR NO_X Annual Trading Program that applies to a CSAPR NO_X Annual source or the designated representative of a CSAPR NO_X Annual source shall also apply to the owners and operators of such source and of the CSAPR NO_X Annual units at the source.

2) Any provision of the CSAPR NO_X Annual Trading Program that applies to a CSAPR NO_X Annual unit or the designated representative of a CSAPR NO_X Annual unit shall also apply to the owners and operators of such unit.

g) Effect on other authorities. No provision of the CSAPR NO_X Annual Trading Program or exemption under 40 CFR 97.405 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO_X Annual source or CSAPR NO_X Annual unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

CSAPR NO_X Ozone Season Group 2 Trading Program Requirements (40 CFR 97.806)

a) Designated representative requirements.

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.813 through 97.818.

b) Emissions monitoring, reporting, and recordkeeping requirements.

1) The owners and operators, and the designated representative, of each CSAPR NO_X Ozone Season Group 2 source and each CSAPR NO_X Ozone Season Group 2 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.830 through 97.835.

2) The emissions data determined in accordance with 40 CFR 97.830 through 97.835 shall be used to calculate allocations of CSAPR NO_X Ozone Season Group 2 allowances under 40

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

CFR 97.811(a)(2) and (b) and 97.812 and to determine compliance with the CSAPR NO_X Ozone Season Group 2 emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.830 through 97.835 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

c) NO_X emissions requirements.

1) CSAPR NO_X Ozone Season Group 2 emissions limitation.
   i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR NO_X Ozone Season Group 2 source and each CSAPR NO_X Ozone Season Group 2 unit at the source shall hold, in the source's compliance account, CSAPR NO_X Ozone Season Group 2 allowances available for deduction for such control period under 40 CFR 97.824(a) in an amount not less than the tons of total NO_X emissions for such control period from all CSAPR NO_X Ozone Season Group 2 units at the source.

   ii) If total NO_X emissions during a control period in a given year from the CSAPR NO_X Ozone Season Group 2 units at a CSAPR NO_X Ozone Season Group 2 source are in excess of the CSAPR NO_X Ozone Season Group 2 emissions limitation set forth in paragraph (c)(1)(i) above, then:
      A) The owners and operators of the source and each CSAPR NO_X Ozone Season Group 2 unit at the source shall hold the CSAPR NO_X Ozone Season Group 2 allowances required for deduction under 40 CFR 97.824(d); and

      B) The owners and operators of the source and each CSAPR NO_X Ozone Season Group 2 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart EEEEE and the Clean Air Act.

2) CSAPR NO_X Ozone Season Group 2 assurance provisions.
   i) If total NO_X emissions during a control period in a given year from all CSAPR NO_X Ozone Season Group 2 units at CSAPR NO_X Ozone Season Group 2 sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such NO_X emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR NO_X Ozone Season Group 2 allowances available for deduction for such control period under 40 CFR 97.825(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.825(b), of multiplying—

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

A) The quotient of the amount by which the common designated representative's share of such NO_X emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such NO_X emissions exceeds the respective common designated representative's assurance level; and

B) The amount by which total NO_X emissions from all base CSAPR NO_X Ozone Season Group 2 units at base CSAPR NO_X Ozone Season Group 2 sources in the state for such control period exceed the state assurance level.

ii) The owners and operators shall hold the CSAPR NO_X Ozone Season Group 2 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after the year of such control period.

iii) Total NO_X emissions from all CSAPR NO_X Ozone Season Group 2 units at base CSAPR NO_X Ozone Season Group 2 sources in a state during a control period in a given year exceed the state assurance level if such total NO_X emissions exceed the sum, for such control period, of the State NO_X Ozone Season Group 2 trading budget under 40 CFR 97.810(a) and the state's variability limit under 40 CFR 97.810(b).

iv) It shall not be a violation of 40 CFR part 97, subpart EEEEE or of the Clean Air Act if total NO_X emissions from all base CSAPR NO_X Ozone Season Group 2 units at base CSAPR NO_X Ozone Season Group 2 sources in the state during a control period exceed the state assurance level or if a common designated representative's share of total NO_X emissions from the base CSAPR NO_X Ozone Season Group 2 units at base CSAPR NO_X Ozone Season Group 2 sources in the state during a control period exceeds the common designated representative's assurance level.

v) To the extent the owners and operators fail to hold CSAPR NO_X Ozone Season Group 2 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,

A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

B) Each CSAPR NO_X Ozone Season Group 2 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart EEEEE and the Clean Air Act.

3) Compliance periods.

i) A CSAPR NO_X Ozone Season Group 2 unit shall be subject to the requirements under paragraph (c)(1) and (2) above for the control period starting on the later of May 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.830(b) and for each control period thereafter.

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

4) Vintage of CSAPR Ozone Season Group 2 allowances held for compliance.
   i) A CSAPR NO_X Ozone Season Group 2 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a CSAPR NO_X Ozone Season Group 2 allowance that was allocated or auctioned for such control period or a control period in a prior year.

   ii) A CSAPR NO_X Ozone Season Group 2 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (c)(2)(i) through (iii) above for a control period in a given year must be a CSAPR NO_X Ozone Season Group 2 allowance that was allocated or auctioned for a control period in a prior year or the control period in the given year or in the immediately following year.

   iii) Except as provided in paragraph (c)(4)(iv) below, a CSAPR NO_x Ozone Season Group 2 allowance held for compliance with the requirements under paragraphs (c)(1)(i), (c)(1)(ii)(A), and (c)(2)(i) through (iii) above shall be a CSAPR NO_x Ozone Season Original Group 2 allowance.

   iv) A CSAPR NO_x Ozone Season Group 2 allowance held for compliance with the requirements under paragraphs (c)(1)(i), (c)(1)(ii)(A), and (c)(2)(i) through (iii) above for a source or group of sources in a state listed in 40 CFR 52.38(b)(2)(ii)(D)(*1*) for a control period after 2022 must be a CSAPR NO_x Ozone Season Expanded Group 2 allowance.

5) Allowance Management System requirements. Each CSAPR NO_X Ozone Season Group 2 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart EEEEE.

6) Limited authorization. A CSAPR NO_X Ozone Season Group 2 allowance is a limited authorization to emit one ton of NO_X during the control period in one year. Such authorization is limited in its use and duration as follows:
   i) Such authorization shall only be used in accordance with the CSAPR NO_X Ozone Season Group 2 Trading Program; and

   ii) Notwithstanding any other provision of 40 CFR part 97, subpart EEEEE, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

7) Property right. A CSAPR NO_X Ozone Season Group 2 allowance does not constitute a property right.

d) Title V permit requirements.

1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR NO_X Ozone Season Group 2 allowances in accordance with 40 CFR part 97, subpart EEEEE.

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

2) A description of whether a unit is required to monitor and report NO_X emissions using a continuous emission monitoring system (under 40 CFR part 75, subpart H), an excepted monitoring system (under 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (under 40 CFR 75.19), or an alternative monitoring system (under 40 CFR part 75, subpart E) in accordance with 40 CFR 97.830 through 97.835 may be added to, or changed in, a title V permit using minor permit modification procedures in accordance with 40 CFR 70.7(e)(2) and 71.1(e)(1), provided that the requirements applicable to the described monitoring and reporting (as added or changed, respectively) are already incorporated in such permit. This paragraph explicitly provides that the addition of, or change to, a unit's description as described in the prior sentence is eligible for minor permit modification procedures in accordance with 40 CFR 70.7(e)(2)(i)(B) and 71.7(e)(1)(i)(B).

e) Additional recordkeeping and reporting requirements.

1) Unless otherwise provided, the owners and operators of each CSAPR NO_X Ozone Season Group 2 source and each CSAPR NO_X Ozone Season Group 2 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.
   i) The certificate of representation under 40 CFR 97.816 for the designated representative for the source and each CSAPR NO_X Ozone Season Group 2 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.816 changing the designated representative.

   ii) All emissions monitoring information, in accordance with 40 CFR part 97, subpart EEEEE.

   iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR NO_X Ozone Season Group 2 Trading Program.

2) The designated representative of a CSAPR NO_X Ozone Season Group 2 source and each CSAPR NO_X Ozone Season Group 2 unit at the source shall make all submissions required under the CSAPR NO_X Ozone Season Group 2 Trading Program, except as provided in 40 CFR 97.818. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

f) Liability.

1) Any provision of the CSAPR NO_X Ozone Season Group 2 Trading Program that applies to a CSAPR NO_X Ozone Season Group 2 source or the designated representative of a CSAPR NO_X Ozone Season Group 2 source shall also apply to the owners and operators of such source and of the CSAPR NO_X Ozone Season Group 2 units at the source.

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

2) Any provision of the CSAPR NO_X Ozone Season Group 2 Trading Program that applies to a CSAPR NO_X Ozone Season Group 2 unit or the designated representative of a CSAPR NO_X Ozone Season Group 2 unit shall also apply to the owners and operators of such unit.

g) Effect on other authorities.

No provision of the CSAPR NO_X Ozone Season Group 2 Trading Program or exemption under 40 CFR 97.805 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR NO_X Ozone Season Group 2 source or CSAPR NO_X Ozone Season Group 2 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.

CSAPR SO_2 Group 1 Trading Program Requirements (40 CFR 97.606)

a) Designated representative requirements.

The owners and operators shall comply with the requirement to have a designated representative, and may have an alternate designated representative, in accordance with 40 CFR 97.613 through 97.618.

b) Emissions monitoring, reporting, and recordkeeping requirements.

1) The owners and operators, and the designated representative, of each CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall comply with the monitoring, reporting, and recordkeeping requirements of 40 CFR 97.630 through 97.635

2) The emissions data determined in accordance with 40 CFR 97.630 through 97.635 shall be used to calculate allocations of CSAPR SO_2 Group 1 allowances under 40 CFR 97.611(a)(2) and (b) and 97.612 and to determine compliance with the CSAPR SO_2 Group 1 emissions limitation and assurance provisions under paragraph (c) below, provided that, for each monitoring location from which mass emissions are reported, the mass emissions amount used in calculating such allocations and determining such compliance shall be the mass emissions amount for the monitoring location determined in accordance with 40 CFR 97.630 through 97.635 and rounded to the nearest ton, with any fraction of a ton less than 0.50 being deemed to be zero.

c) SO_2 emissions requirements.

1) CSAPR SO_2 Group 1 emissions limitation.

i) As of the allowance transfer deadline for a control period in a given year, the owners and operators of each CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall hold, in the source's compliance account, CSAPR SO_2 Group 1 allowances available for deduction for such control period under 40 CFR 97.624(a) in an amount not less than the tons of total SO_2 emissions for such control period from all CSAPR SO_2 Group 1 units at the source.

ii) If total SO_2 emissions during a control period in a given year from the CSAPR SO_2 Group 1 units at a CSAPR SO_2 Group 1 source are in excess of the CSAPR SO_2 Group 1 emissions limitation set forth in paragraph (c)(1)(i) above, then:

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

A) The owners and operators of the source and each CSAPR SO_2 Group 1 unit at the source shall hold the CSAPR SO_2 Group 1 allowances required for deduction under 40 CFR 97.624(d); and

B) The owners and operators of the source and each CSAPR SO_2 Group 1 unit at the source shall pay any fine, penalty, or assessment or comply with any other remedy imposed, for the same violations, under the Clean Air Act, and each ton of such excess emissions and each day of such control period shall constitute a separate violation 40 CFR part 97, subpart CCCCC and the Clean Air Act.

2) CSAPR SO_2 Group 1 assurance provisions.

i) If total SO_2 emissions during a control period in a given year from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state exceed the state assurance level, then the owners and operators of such sources and units in each group of one or more sources and units having a common designated representative for such control period, where the common designated representative's share of such SO_2 emissions during such control period exceeds the common designated representative's assurance level for the state and such control period, shall hold (in the assurance account established for the owners and operators of such group) CSAPR SO_2 Group 1 allowances available for deduction for such control period under 40 CFR 97.625(a) in an amount equal to two times the product (rounded to the nearest whole number), as determined by the Administrator in accordance with 40 CFR 97.625(b), of multiplying-

A) The quotient of the amount by which the common designated representative's share of such SO_2 emissions exceeds the common designated representative's assurance level divided by the sum of the amounts, determined for all common designated representatives for such sources and units in the state for such control period, by which each common designated representative's share of such SO_2 emissions exceeds the respective common designated representative's assurance level; and

B) The amount by which total SO_2 emissions from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state for such control period exceed the state assurance level.

ii) The owners and operators shall hold the CSAPR SO_2 Group 1 allowances required under paragraph (c)(2)(i) above, as of midnight of November 1 (if it is a business day), or midnight of the first business day thereafter (if November 1 is not a business day), immediately after the year of such control period.

iii) Total SO_2 emissions from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state during a control period in a given year exceed the state assurance level if such total SO_2 emissions exceed the sum, for such control period, of the state SO_2 Group 1 trading budget under 40 CFR 97.610(a) and the state's variability limit under 40 CFR 97.610(b).

iv) It shall not be a violation of 40 CFR part 97, subpart CCCCC or of the Clean Air Act if total SO_2 emissions from all CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state during a control period exceed the state assurance level or if a

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

common designated representative's share of total SO_2 emissions from the CSAPR SO_2 Group 1 units at CSAPR SO_2 Group 1 sources in the state during a control period exceeds the common designated representative's assurance level.

v) To the extent the owners and operators fail to hold CSAPR SO_2 Group 1 allowances for a control period in a given year in accordance with paragraphs (c)(2)(i) through (iii) above,

A) The owners and operators shall pay any fine, penalty, or assessment or comply with any other remedy imposed under the Clean Air Act; and

B) Each CSAPR SO_2 Group 1 allowance that the owners and operators fail to hold for such control period in accordance with paragraphs (c)(2)(i) through (iii) above and each day of such control period shall constitute a separate violation of 40 CFR part 97, subpart CCCCC and the Clean Air Act.

3) Compliance periods.

i) A CSAPR SO_2 Group 1 unit shall be subject to the requirements under paragraph (c)(1) above for the control period starting on the later of January 1, 2015 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter.

ii) A CSAPR SO_2 Group 1 unit shall be subject to the requirements under paragraph (c)(2) above for the control period starting on the later of January 1, 2017 or the deadline for meeting the unit's monitor certification requirements under 40 CFR 97.630(b) and for each control period thereafter.

4) Vintage of CSAPR SO_2 Group 1 allowances held for compliance.

i) A CSAPR SO_2 Group 1 allowance held for compliance with the requirements under paragraph (c)(1)(i) above for a control period in a given year must be a CSAPR SO_2 Group 1 allowance that was allocated or auctioned for such control period or a control period in a prior year.

ii) A CSAPR SO_2 Group 1 allowance held for compliance with the requirements under paragraphs (c)(1)(ii)(A) and (2)(i) through (iii) above for a control period in a given year must be a CSAPR SO_2 Group 1 allowance that was allocated or auctioned for a control period in a prior year or the control period in the given year or in the immediately following year.

5) Allowance Management System requirements. Each CSAPR SO_2 Group 1 allowance shall be held in, deducted from, or transferred into, out of, or between Allowance Management System accounts in accordance with 40 CFR part 97, subpart CCCCC.

6) Limited authorization. A CSAPR SO_2 Group 1 allowance is a limited authorization to emit one ton of SO_2 during the control period in one year. Such authorization is limited in its use and duration as follows:

i) Such authorization shall only be used in accordance with the CSAPR SO_2 Group 1 Trading Program; and

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

ii) Notwithstanding any other provision of 40 CFR part 97, subpart CCCCC, the Administrator has the authority to terminate or limit the use and duration of such authorization to the extent the Administrator determines is necessary or appropriate to implement any provision of the Clean Air Act.

7) Property right. A CSAPR SO_2 Group 1 allowance does not constitute a property right.

d) Title V permit requirements.

1) No title V permit revision shall be required for any allocation, holding, deduction, or transfer of CSAPR SO_2 Group 1 allowances in accordance with 40 CFR part 97, subpart CCCCC.

2) A description of whether a unit is required to monitor and report SO_2 emissions using a continuous emission monitoring system (under 40 CFR part 75, subpart B), an excepted monitoring system (under 40 CFR part 75, appendices D and E), a low mass emissions excepted monitoring methodology (under 40 CFR 75.19), or an alternative monitoring system (under 40 CFR part 75, subpart E) in accordance with 40 CFR 97.630 through 97.635 may be added to, or changed in, a title V permit using minor permit modification procedures in accordance with 40 CFR 70.7(e)(2) and 71.7(e)(1), provided that the requirements applicable to the described monitoring and reporting (as added or changed, respectively) are already incorporated in such permit. This paragraph explicitly provides that the addition of, or change to, a unit's description as described in the prior sentence is eligible for minor permit modification procedures in accordance with 40 CFR 70.7(e)(2)(i)(B) and 71.7(e)(1)(i)(B).

e) Additional recordkeeping and reporting requirements.

1) Unless otherwise provided, the owners and operators of each CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall keep on site at the source each of the following documents (in hardcopy or electronic format) for a period of 5 years from the date the document is created. This period may be extended for cause, at any time before the end of 5 years, in writing by the Administrator.

i) The certificate of representation under 40 CFR 97.616 for the designated representative for the source and each CSAPR SO_2 Group 1 unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such certificate of representation and documents are superseded because of the submission of a new certificate of representation under 40 CFR 97.616 changing the designated representative.

ii) All emissions monitoring information, in accordance with 40 CFR part 97, subpart CCCCC.

iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under, or to demonstrate compliance with the requirements of, the CSAPR SO_2 Group 1 Trading Program.

SECTION L – CROSS-STATE AIR POLLUTION RULE (CSAPR) (CONTINUED)

2) The designated representative of a CSAPR SO_2 Group 1 source and each CSAPR SO_2 Group 1 unit at the source shall make all submissions required under the CSAPR SO_2 Group 1 Trading Program, except as provided in 40 CFR 97.618. This requirement does not change, create an exemption from, or otherwise affect the responsible official submission requirements under a title V operating permit program in 40 CFR parts 70 and 71.

f) Liability.

1) Any provision of the CSAPR SO_2 Group 1 Trading Program that applies to a CSAPR SO_2 Group 1 source or the designated representative of a CSAPR SO_2 Group 1 source shall also apply to the owners and operators of such source and of the CSAPR SO_2 Group 1 units at the source.

2) Any provision of the CSAPR SO_2 Group 1 Trading Program that applies to a CSAPR SO_2 Group 1 unit or the designated representative of a CSAPR SO_2 Group 1 unit shall also apply to the owners and operators of such unit.

g) Effect on other authorities. No provision of the CSAPR SO_2 Group 1 Trading Program or exemption under 40 CFR 97.605 shall be construed as exempting or excluding the owners and operators, and the designated representative, of a CSAPR SO_2 Group 1 source or CSAPR SO_2 Group 1 unit from compliance with any other provision of the applicable, approved state implementation plan, a federally enforceable permit, or the Clean Air Act.