DRAFT CAAPP PERMIT
12/18/2025

*Attention:*

Prairie State Generating Company, LLC
Attn: Randy Short – President and CEO
3872 County Highway 12
Marissa, IL 62257

State of Illinois

# CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT

[Title I and Title V Permit]

*Source:*

Prairie State Generating Station
1739 New Marigold Rd
Marissa, IL 62257

I.D. No.: 189808AAB
Permit No.: 10010033

*Permitting Authority:*

Illinois Environmental Protection Agency
Bureau of Air, Permit Section
217/785-1705

Illinois Environmental Protection Agency
2520 West Iles Avenue • P.O. Box 19276 • Springfield, Illinois • 62794-9276 • 217-782-3397

**JB Pritzker**, Governor **James Jennings**, Acting Director

**CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT**
[Title I and Title V Permit]

| | |
|---|---|
| Type of Application: | New |
| Purpose of Application: | Issue New Permit to a New Major Source |
| ID No.: | 189808AAB |
| Permit No.: | 10010033 |
| Date Application Received: | May 5, 2011 |
| Date Issued: | TBD |
| Expiration Date: | TBD |
| Renewal Submittal Date: | 9 Months Prior to TBD |
| Source Name: | Prairie State Generating Station |
| Address: | 1739 New Marigold Rd |
| City: | Marissa |
| County: | Washington |
| ZIP Code: | 62257 |

This permit is hereby granted to the above-designated source authorizing operation in accordance with this CAAPP permit, pursuant to the above referenced application. This source is subject to the conditions contained herein. For further information on the source see Section 1 and for further discussion on the effect of this permit see Condition 2.2(g).

If you have any questions concerning this permit, please contact Geoffrey Blood at 217-785-1705.

William D. Marr
Manager, Permit Section
Bureau of Air

WDM:RTH:GJB:mmw

cc: IEPA, Permit Section
IEPA, FOS, Region 3

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## Section 1 – Source Information

### 1. Addresses

**Source**

Prairie State Generating Station
1739 New Marigold Rd
Marissa, IL 62257

**Owner**

Prairie State Generating Company, LLC
3872 County Highway 12
Marissa, IL 62257

**Operator**

Prairie State Generating Company, LLC
3872 County Highway 12
Marissa, IL 62257

**Permittee**

The Operator of the source as identified in this Section 1.1.

### 2. Contacts

**Certified Officials**

The source shall submit an Administrative Permit Amendment for any change in the Certified Officials, pursuant to Section 39.5(13) of the Act.

| | *Name* | *Title* |
|---|---|---|
| *Responsible Official* | Randy Short | President and Chief Executive Officer |

**Other Contacts**

| | *Name* | *Phone No.* | *Email* |
|---|---|---|---|
| *Source Contact* | Ross Bunton, Environmental Director | 618-824-7684 | rbunton@psgc-llc.com |
| *Technical Contact* | Ross Bunton, Environmental Director | 618-824-7684 | rbunton@psgc-llc.com |
| *Correspondence* | Randy Short, President and CEO | 618-824-7582 | rshort@psgc-llc.com |
| *Billing* | Sarah Zaring, Controller | 618-824-7693 | ap@psgc-llc.com |

### 3. Single Source

The source identified in Condition 1.1 above shall be defined to include all the following additional source(s):

| *I.D. No.* | *Permit No.* | *Single Source Name and Address* |
|---|---|---|
| N/A | N/A | N/A |

## Section 2 – General Permit Requirements

### 1. Prohibitions

a. It shall be unlawful for any person to violate any terms or conditions of this permit issued under Section 39.5 of the Act, to operate the CAAPP source except in compliance with this permit issued by the IEPA under Section 39.5 of the Act or to violate any other applicable requirements. All terms and conditions of this permit issued under Section 39.5 of the Act are enforceable by USEPA and citizens under the Clean Air Act, except those, if any, that are specifically designated as not being federally enforceable in this permit pursuant to Section 39.5(7)(m) of the Act. [Section 39.5(6)(a) of the Act]

b. After the applicable CAAPP permit or renewal application submittal date, as specified in Section 39.5(5) of the Act, the source shall not operate this CAAPP source without a CAAPP permit unless the complete CAAPP permit or renewal application for such source has been timely submitted to the IEPA. [Section 39.5(6)(b) of the Act]

c. No Owner or Operator of the CAAPP source shall cause or threaten or allow the continued operation of an emission source during malfunction or breakdown of the emission source or related air pollution control equipment if such operation would cause a violation of the standards or limitations applicable to the source, unless this CAAPP permit granted to the source provides for such operation consistent with the Act and applicable Illinois Pollution Control Board regulations. [Section 39.5(6)(c) of the Act]

d. Pursuant to Section 39.5(7)(g) of the Act, emissions from the source are not allowed to exceed any allowances that the source lawfully holds under Title IV of the Clean Air Act or the regulations promulgated thereunder, consistent with Section 39.5(17) of the Act and applicable requirements, if any.

### 2. General Provisions

**a. Duty to Comply**

The source must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. [Section 39.5(7)(o)(i) of the Act]

**b. Need to Halt or Reduce Activity is not a Defense**

It shall not be a defense for the source in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [Section 39.5(7)(o)(ii) of the Act]

**c. Duty to Maintain Equipment**

The source shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements. [Section 39.5(7)(a) of the Act]

**d. Disposal Operations**

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated there under. [Section 39.5(7)(a) of the Act]

**e. Duty to Pay Fees**

i. The source must pay fees to the IEPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto. [Section 39.5(7)(o)(vi) of the Act]

ii. The IEPA shall assess annual fees based on the allowable emissions of all regulated air pollutants, except for those regulated air pollutants excluded in Section 39.5(18)(f) of the Act and insignificant activities in Section 6, at the source during the term of this permit. The amount of such fee shall be based on the information supplied by the applicant in its complete CAAPP permit application. [Section 39.5(18)(a)(ii)(A) of the Act]

iii. Fee payment shall be made either electronically at https://magic.collectorsolutions.com/magic-ui/Login/illinois-epa or by check or money order payable to "Illinois Environmental Protection Agency" and sent to: Fiscal Services #2, Illinois EPA, P.O. Box 19276, Springfield, IL, 62794-9276. Include on the check: ID #, Permit #, and "CAAPP Operating Permit Fees". [Section 39.5(18)(e) of the Act]

**f. Obligation to Allow IEPA Surveillance**

Pursuant to Sections 4, 39.5(7)(a), and 39.5(7)(p)(ii) of the Act, inspection and entry requirements that necessitate that, upon presentation of credentials and other documents as may be required by law and in accordance with constitutional limitations, the source shall allow the IEPA, or an authorized representative to perform the following:

i. Enter upon the source's premises where the emission unit(s) are located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit.

ii. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit.

iii. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit.

iv. Sample or monitor any substances or parameters at any location at reasonable times:

A. As authorized by the Clean Air Act or the Act, at reasonable times, for the purposes of assuring compliance with this CAAPP permit or applicable requirements; or

B. As otherwise authorized by the Act.

v. Enter and utilize any recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

**g. Effect of Permit**

i. Pursuant to Section 39.5(7)(j)(iv) of the Act, nothing in this CAAPP permit shall alter or affect the following:

A. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section.

B. The liability of the Owner or Operator of the source for any violation of applicable requirements prior to or at the time of permit issuance.

C. The applicable requirements of the acid rain program consistent with Section 408(a) of the Clean Air Act.

D. The ability of USEPA to obtain information from the source pursuant to Section 114 (inspections, monitoring, and entry) of the Clean Air Act.

ii. Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, pursuant to Sections 39.5(7)(j) and (p) of the Act, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements. [35 IAC 201.122 and Section 39.5(7)(a) of the Act]

**h. Severability Clause**

The provisions of this permit are severable. In the event of a challenge to any portion of this permit, other portions of this permit may continue to be in effect. Should any portion of this permit be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected, and the rights and obligations of the source shall be construed and enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force and effect. [Section 39.5(7)(i) of the Act]

## 3. Testing

a. Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods if applicable test methods are not specified by the applicable regulations or otherwise identified in the conditions of this permit. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping requirements of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the IEPA shall be submitted as specified in Condition 7.1 of this permit. [35 IAC Part 201 Subpart J and Section 39.5(7)(a) of the Act]

b. Pursuant to Section 4(b) of the Act and 35 IAC 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:

i. Testing by Owner or Operator: The IEPA may require the Owner or Operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the IEPA, at such reasonable times as may be specified by the IEPA and at the expense of the Owner or Operator of the emission source or air pollution control equipment. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The IEPA shall have the right to observe all aspects of such tests.

ii. Testing by the IEPA: The IEPA shall have the right to conduct such tests at any time at its own expense. Upon request of the IEPA, the Owner or Operator of the emission source or air pollution control equipment shall provide, without charge to the IEPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.

## 4. Recordkeeping

### a. Control Equipment Maintenance Records

Pursuant to Section 39.5(7)(b) of the Act, a maintenance record shall be kept on the premises for each item of air pollution control equipment. At a minimum, this record shall show the dates maintenance was performed and the nature of preventative maintenance activities.

### b. Retention of Records

i. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [Section 39.5(7)(e)(ii) of the Act]

ii. Pursuant to Section 39.5(7)(a) of the Act, other records required by this permit including any logs, plans, procedures, or instructions required to be kept by this permit shall be retained for a period of at least 5 years from the date of entry unless a different period is specified by a particular permit provision.

### c. Availability of Records

i. Pursuant to Section 39.5(7)(a) of the Act, the Permittee shall retrieve and provide paper copies, or as electronic media, any records retained in an electronic format (e.g., computer) in response to an IEPA or USEPA request during the course of a source inspection.

ii. Pursuant to Section 39.5(7)(a) of the Act, upon written request by the IEPA for copies of records or reports required to be kept by this permit, the Permittee shall promptly submit a copy of such material to the IEPA. For this purpose, material shall be submitted to the IEPA within 30 days unless additional time is provided by the IEPA or the Permittee believes that the volume and nature of requested material would make this overly burdensome, in which case, the Permittee shall respond within 30 days with the explanation and a schedule for submittal of the requested material. (See also Condition 2.8(d))

## 5. Certification

### a. Compliance Certification

i. Pursuant to Section 39.5(7)(p)(v)(C) of the Act, the source shall submit annual compliance certifications by May 1 unless a different date is specified by an applicable requirement or by a particular permit condition. The annual compliance certifications shall include the following:

A. The identification of each term or condition of this permit that is the basis of the certification.

B. The compliance status.

C. Whether compliance was continuous or intermittent.

D. The method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.

ii. Pursuant to Section 39.5(7)(p)(v)(D) of the Act, all compliance certifications shall be submitted to the IEPA Compliance Section. Address is included in Attachment 3.

iii. Pursuant to Section 39.5(7)(p)(i) of the Act, all compliance reports required to be submitted shall include a certification in accordance with Condition 2.5(b).

**b. Certification by a Responsible Official**

Any document (including reports) required to be submitted by this permit shall contain a certification by the responsible official of the source that meets the requirements of Section 39.5(5) of the Act and applicable regulations. [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included in Attachment 4 of this permit.

## 6. Permit Shield

a. Pursuant to Section 39.5(7)(j) of the Act, except as provided in Condition 2.6(b) below, the source has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the IEPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit. This permit shield does not extend to applicable requirements which are promulgated after TBD (date USEPA notice started for the New CAAPP Permit), unless this permit has been modified to reflect such new requirements.

b. Pursuant to Section 39.5(7)(j) of the Act, this permit and the terms and conditions herein do not affect the Permittee's past and/or continuing obligation with respect to statutory or regulatory requirements governing major source construction or modification under Title I of the CAA. Further, neither the issuance of this permit nor any of the terms or conditions of the 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.

c. Pursuant to Section 39.5(7)(a) of the Act, the issuance of this permit by the IEPA does not and shall not be construed as barring, diminishing, adjudicating or in any way affecting any currently pending or future legal, administrative or equitable rights or claims, actions, suits, causes of action or demands whatsoever that the IEPA or the USEPA may have against the applicant including, but not limited to, any enforcement action authorized pursuant to the provision of applicable federal and state law.

## 7. Title I Conditions

Pursuant to Sections 39(a), 39(f), and 39.5(7)(a) of the Act, as generally identified below, this CAAPP permit may contain certain conditions that relate to requirements arising from the construction or modification of emission units at this source. These requirements derive from permitting programs authorized under Title I of the Clean Air Act (CAA) and regulations thereunder, and Title X of the Illinois Environmental Protection Act (Act) and regulations implementing the same. Such requirements, including the New Source Review programs for both major (i.e., attainment and nonattainment areas) and minor sources, are implemented by the IEPA.

a. This permit may contain conditions that reflect requirements originally established in construction permits previously issued for this source. These conditions include requirements from preconstruction permits issued pursuant to regulations approved or promulgated by USEPA under Title I of the CAA, as well as requirements contained within construction permits issued pursuant to state law authority under Title X of the Act. Accordingly, all such conditions are incorporated into this CAAPP permit by virtue of being either an "applicable

Clean Air Act requirement" or an "applicable requirement" in accordance with Section 39.5 of the Act. These conditions are identifiable herein by a designation to their origin of authority.

b. This permit may contain conditions that reflect necessary revisions to requirements established for this source in preconstruction permits previously issued under the authority of Title I of the CAA. These conditions are specifically designated herein as "TIR".

i. Revisions to original Title I permit conditions are incorporated into this permit through the combined legal authority of Title I of the CAA and Title X of the Act. Public participation requirements and appeal rights shall be governed by Section 39.5 of the Act.

ii. Revised Title I permit conditions shall remain in effect through this CAAPP permit, and are therefore enforceable under the same, so long as such conditions do not expire as a result of a failure to timely submit a complete renewal application or are not removed at the applicant's request.

c. This permit may contain conditions that reflect new requirements for this source that would ordinarily derive from a preconstruction permit established under the authority of Title I of the CAA. These conditions are specifically designated herein as "TIN".

i. The incorporation of new Title I requirements into this CAAPP permit is authorized through the combined legal authority of Title I of the CAA and Title X of the Act. Public participation requirements and appeal rights shall be governed by Section 39.5 of the Act.

ii. Any Title I conditions that are newly incorporated shall remain in effect through this CAAPP permit, and are therefore enforceable under the same, so long as such conditions do not expire as a result of a failure to timely submit a complete renewal application or are not removed at the applicant's request.

## 8. Reopening and Revising Permit

### a. Permit Actions

This permit may be modified, revoked, reopened and reissued, or terminated for cause in accordance with applicable provisions of Section 39.5 of the Act. The filing of a request by the source for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [Section 39.5(7)(o)(iii) of the Act]

### b. Reopening and Revision

Pursuant to Section 39.5(15)(a) of the Act, this permit must be reopened and revised if any of the following occur:

i. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;

ii. Additional requirements become applicable to the source for acid deposition under the acid rain program;

iii. The IEPA or USEPA determines that this permit contains a material mistake or that an inaccurate statement was made in establishing the emission standards or limitations, or other terms or conditions of this permit; or

iv. The IEPA or USEPA determines that this permit must be revised or revoked to ensure compliance with the applicable requirements.

**c. Inaccurate Application**

Pursuant to Sections 39.5(5)(e) and (i) of the Act, the IEPA has issued this permit based upon the information submitted by the source in the permit application referenced on page 1 of this permit. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation or reopening of this CAAPP under Section 39.5(15) of the Act.

**d. Duty to Provide Information**

The source shall furnish to the IEPA, within a reasonable time specified by the IEPA any information that the IEPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the source shall also furnish to the IEPA copies of records required to be kept by this permit. [Section 39.5(7)(o)(v) of the Act]

## 9. Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement. [Section 39.5(7)(o)(vii) of the Act]

## 10. Permit Renewal

a. Upon the expiration of this permit, if the source is operated, it shall be deemed to be operating without a permit unless a timely and complete CAAPP application has been submitted for renewal of this permit. However, if a timely and complete application to renew this CAAPP permit has been submitted, the terms and all conditions of the most recent issued CAAPP permit will remain in effect until the issuance of a renewal permit. [Sections 39.5(5)(l) and (o) of the Act]

b. For purposes of permit renewal, a timely application is one that is submitted no less than 9 months prior to the date of permit expiration. [Section 39.5(5)(n) of the Act]

## 11. Permanent Shutdown

Pursuant to Section 39.5(7)(a) of the Act, this permit only covers emission units and control equipment while physically present at the source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

## Section 3 – Source Requirements

### 1. Applicable Requirements

Pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act, the Permittee shall comply with the following applicable requirements. These requirements are applicable to all emission units (including insignificant activities unless specified otherwise in this Section) at the source.

**a. i. Fugitive Particulate Matter**

A. Pursuant to 35 IAC 212.301 and 35 IAC 212.314, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source unless the wind speed is greater than 25 mph.

ii. Compliance Method (Fugitive Particulate Matter)

A. Pursuant to Section 39.5(7)(b) of the Act, upon request by the IEPA, the Permittee shall conduct observations at the property line of the source for visible emissions of fugitive particulate matter from the source to address compliance with 35 IAC 212.301. For this purpose, daily observations shall be conducted for a week for particular area(s) of concern at the source, as specified in the request, observations shall begin either within one day or three days of receipt of a written request from the IEPA, depending, respectively, upon whether observations will be conducted by employees of the Permittee or a third-party observer hired by the Permittee to conduct observations on its behalf. The Permittee shall keep records for these observations, including identity of the observer, the date and time of observations, the location(s) from which observations were made, and duration of any fugitive emissions event(s).

**b. Ozone Depleting Substances**

Pursuant to 40 CFR 82.150(b), the Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

i. Pursuant to 40 CFR 82.156, persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices.

ii. Pursuant to 40 CFR 82.158, equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment.

iii. Pursuant to 40 CFR 82.161, persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program.

iv. Pursuant to 40 CFR 82 Subpart B, any person performing service on a motor vehicle for consideration when this service involves the refrigerant in the motor vehicle air conditioner shall comply with 40 CFR 82 Subpart B, Servicing of Motor Vehicle Air Conditioners.

v. Pursuant to 40 CFR 82.166, all persons shall comply with the reporting and recordkeeping requirements of 40 CFR 82.166.

**c. Asbestos Demolition and Renovation**

i. Asbestos Fees. Pursuant to Section 9.13(a) of the Act, for any site for which the Owner or Operator must file an original 10-day notice of intent to renovate or demolish pursuant to Condition 3.1(c)(ii) below and 40 CFR 61.145(b), the Owner or Operator shall pay to the IEPA with the filing of each 10-day notice a fee of $150.

ii. Pursuant to 40 CFR 61 Subpart M, Standard of Asbestos, prior to any demolition or renovation at this facility, the Permittee shall fulfill notification requirements of 40 CFR 61.145(b).

iii. Pursuant to 40 CFR 61.145(c), during demolition or renovation, the Permittee shall comply with the procedures for asbestos emission control established by 40 CFR 61.145(c).

**d. i. <u>Acid Rain Requirements</u>**

A. Applicability:

Under Title IV of the CAA, Acid Deposition Control, this source is an affected source and the following emission units at the source are affected units for acid deposition:

Coal-Fired Boilers Unit 1 and Unit 2

Note: Title IV of the CAA, and other laws and regulations promulgated thereunder, establish requirements for affected sources related to control of emissions of pollutants that contribute to acid rain. For purposes of this permit, these requirements are referred to as Title IV provisions.

B. Applicable Emission Requirements:

The owners and operators of the source shall not violate applicable Title IV provisions. $SO_2$ emissions of the affected units shall not exceed any allowances that the source lawfully holds under Title IV provisions. [Section 39.5(7)(g) and (17)(l) of the Act]

Note: Affected sources must hold $SO_2$ allowances to account for the $SO_2$ emissions from affected units at the source that are subject to Title IV provisions. Each allowance is a limited authorization to emit up to one ton of $SO_2$ emissions during or after a specified calendar year. The possession of allowances does not authorize exceedances of applicable emission standards or violations of ambient air quality standards.

C. Acid Rain Permit:

The owners and operators of the source shall comply with the terms and conditions of the source's Acid Rain permit. [Section 39.5(17)(l) of the Act]

Note: The source is subject to an Acid Rain permit, which was issued pursuant to Title IV provisions, including Section 39.5(17) of the Act. Affected sources must be operated in compliance with their Acid Rain permit. This source's Acid Rain permit is incorporated by reference into this permit and a copy of the current Acid Rain permit is included in Condition 7.6. Revisions and modifications of this Acid Rain permit, including administrative amendments and automatic amendments (pursuant to Sections 408(b) and 403(d) of the CAA or regulations thereunder) are governed by Title IV provisions, as provided by Section 39.5(13)(e) of the Act. Accordingly, revision or renewal of the Acid Rain permit may be handled separately from this CAAPP permit and a copy of the new Acid Rain permit may be included in this permit by administrative amendment.

D. Coordination with Other Requirements

I. This permit does not contain any conditions that are intended to interfere with or modify the requirements of Title IV provisions. In particular, this permit does not restrict the flexibility under Title IV provisions of the owners and operators of this source to amend their Acid Rain compliance plan. [Section 39.5(17)(h) of the Act]

II. Where another applicable requirement of the CAA is more stringent than an applicable requirement of Title IV provisions, both requirements are incorporated into this permit and are enforceable and the owners and operators of the source shall comply with both requirements. [Section 39.5(7)(h) of the Act]

ii. **Compliance Method (Acid Rain)**

Monitoring, Recordkeeping and Reporting

A. The owners and operators of the source and, to the extent applicable, their designated representative, shall comply with applicable requirements for monitoring, recordkeeping and reporting specified by Title IV provisions, including 40 CFR Part 75. [Section 39.5(7)(b) of the Act]

Note: The following emission determination methods will be used for the affected units at this source.

| | |
|---|---|
| $NO_X$: | Continuous Emissions Monitoring (40 CFR 75.12) |
| $SO_2$: | Continuous Emissions Monitoring (40 CFR 75.11) |
| Opacity: | Continuous Monitoring (40 CFR 75.14) |
| $O_2/CO_2$: | Continuous Monitoring for Oxygen or Carbon Dioxide (40 CFR Part 75.13) |

**e. Cross-State Air Pollution Rule (CSAPR)**

The USEPA issued the Cross-State Air Pollution Rule (CSAPR), also known as the Transport Rule, to address Section 110(a)(2)(D)(i)(I) of the CAA, referred to as the "Good Neighbor" provision. CSAPR replaced the Clean Air Interstate Rule (CAIR) and was designed to limit the interstate transport of $NO_X$ and $SO_2$ emissions. The source meets the definition of a CSAPR $NO_X$ Annual source, a CSAPR $SO_2$ Group 1 source, and a CSAPR $NO_X$ Ozone Season Group 2 source, as defined in 40 CFR 97.402, 40 CFR 97.602, and 40 CFR 97.802, respectively. See CSAPR requirements in Section 7.7.

**f. Emission Standard Optionality**

Pursuant to Section 39.5(7)(b) of the Act, although this permit may not explicitly address each option and alternative contained within an applicable regulation, the source is nonetheless granted any applicable flexibility and alternative contained within the underlying regulation.

**g. Future Emission Standards**

Pursuant to Section 39.5(15)(a) of the Act, this source shall comply with any new or revised applicable future standards of 40 CFR 60, 61, 62, or 63; or 35 IAC Subtitle B after the date this permit is issued. The Permittee shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by Condition 2.5(a). This permit may also have to be revised or reopened to address such new regulations in accordance with Condition 2.8.

## 2. Applicable Plans and Programs

Pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act, the Permittee shall comply with the following applicable requirements. These requirements are applicable to all emission units (including insignificant activities unless specified otherwise in this Section) at the source.

### a. Fugitive PM Operating Program

Should this source become subject to 35 IAC 212.302, the Permittee shall prepare and operate under a Fugitive PM Operating Program consistent with 35 IAC 212.310 and submitted to the IEPA for its review. The Fugitive PM Operating Program shall be designed to significantly reduce fugitive particulate matter emissions, pursuant to 35 IAC 212.309(a). Any future Fugitive PM Operating Program made by the Permittee during the permit term is automatically incorporated by reference. In the event that the IEPA notifies the Permittee of a deficiency with any Fugitive PM Operating Program, the Permittee shall be required to revise and resubmit the Fugitive PM Operating Program within 30 days of receipt of notification to address the deficiency pursuant to Section 39.5(7)(a) of the Act.

Note: See Sections 3.3 and 4.2 for fugitive particulate matter operating program requirements established by Title I permits.

### b. $PM_{10}$ Contingency Measure Plan

Should this source become subject to 35 IAC 212.700, then the Permittee shall prepare and operate under a $PM_{10}$ Contingency Measure Plan reflecting the $PM_{10}$ emission reductions as set forth in 35 IAC 212.701 and 212.703. The Permittee shall, within 90 days after the date this source becomes subject to 35 IAC 212.700, submit a request to modify this CAAPP permit in order to include a new, appropriate $PM_{10}$ Contingency Measure Plan.

### c. Episode Action Plan

i. Pursuant to 35 IAC 244.141, the Permittee shall have on file with the IEPA an Episode Action Plan for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The Episode Action Plan shall contain the information specified in 35 IAC 244.144.

ii. The Permittee shall immediately implement the appropriate steps described in the Episode Action Plan should an air pollution alert or emergency be declared, as required by 35 IAC 244.169, or as may otherwise be required under 35 IAC 244, Appendix D.

iii. Pursuant to 35 IAC 244.143(d), if an operational change occurs at the source which invalidates the Episode Action Plan, a revised Episode Action Plan shall be submitted to the IEPA for review within 30 days of the change and is automatically incorporated by reference provided the revision is not expressly disapproved, in writing, by the IEPA within 30 days of receipt of the revision. In the event that the IEPA notifies the Permittee of a deficiency with any revision to the Episode Action Plan, the Permittee shall be required to revise and resubmit the Episode Action Plan within 30 days of receipt of notification to address the deficiency pursuant to Section 39.5(7)(a) of the Act.

iv. The Episode Action Plan, as submitted by the Permittee on January 8th, 2025, is incorporated herein by reference. The document constitutes the formal Episode Action Plan required by 35 IAC 244.142, addressing the actions that will be implemented to reduce $SO_2$, $PM_{10}$, $NO_2$, CO and VOM emissions from various emissions units in the event of a yellow alert, red alert or emergency issued under 35 IAC 244.161 through 244.165.

v. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep a copy of the Episode Action Plan, any amendments or revisions to the Episode Action Plan (as required by Condition 3.2(c)), and the Permittee shall also keep a record of activities completed according to the Episode Action Plan.

**d. Risk Management Plan (RMP)**

i. Pursuant to 40 CFR 68.215(a), the Permittee shall have a Risk Management Plan registered with the USEPA that includes information required by 40 CFR 68.150.

ii. The Permittee shall keep a copy of the Risk Management Plan and shall update the Risk Management Plan with the USEPA pursuant to 40 CFR 68.190.

## 3. Title I Requirements

**a. i. Construction Permit #01100065 Requirements**

**Receiving, Transfer, Handling, Storage, Processing or Preparation (Crushing, etc.), and Loading Operations of Coal, Rock, Limestone, and Ash at the Source**:

A. Pursuant to Construction Permit #01100065: [T1]

I. Storage piles, including material handling operations associated with the piles, shall be controlled by application of water or other dust suppressants so as to minimize fugitive emissions to the extent practicable.

II. 1. For this purpose, except for limestone, a nominal control efficiency of at least 90 percent shall be achieved from the uncontrolled emission rate, as determined using appropriate USEPA emission factors for uncontrolled particulate emissions and engineering analysis and calculations.

2. For limestone:

aa. A nominal control efficiency of at least 99 percent shall be achieved, or

bb. There shall be no visible emissions from the affected unit, as determined in accordance with USEPA Method 22.

B. Pursuant to Construction Permit #01100065, the source shall be designed and operated to store bulk materials that have the potential for particulate matter emissions, other than coal, limestone, wetted bottom ash and scrubber sludge, in silos, bins, and buildings, without storage of such material in outdoor piles except on a temporary basis during breakdown or other disruption in the capabilities of the enclosed storage facilities. [T1]

C. Pursuant to Construction Permit #01100065, the Permittee shall carry out control of fugitive particulate matter emissions from the loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of coal, rock, limestone, and ash in accordance with a written operating program (The Material Handling Fugitive Emissions Program) describing the measures being implemented to control emissions at each area of the plant with the potential to generate more than trivial amounts of such emissions, which program shall be kept current. [T1]

I. The Material Handling Fugitive Emissions Program shall include maps or diagrams indicating the location of affected units with the potential for fugitive emissions, accompanied by the following information for each such unit: a general description of the unit, its size (area or volume), the expected level of activity, the nature and extent of enclosure, and a description of installed air pollution control equipment.

II. The Material Handling Fugitive Emissions Program shall include a detailed description of any additional emission control techniques (e.g., water or surfactant spray) including: typical flow of water and additive concentration; rate or normal frequency at which measures would be implemented; circumstances in which the measures would not be implemented e.g., adequate surface moisture on material; triggers for additional control, e.g. observation of 10 percent or greater opacity; and calculated control efficiency.

**Bulk Commodity Haul Roads**:

D. Pursuant to Construction Permit #01100065: [T1]

I. The total annual emissions of particulate matter from Bulk Commodity Haul Roads, which may be sources of fugitive particulate matter due to vehicle traffic or windblown dust, shall not exceed 9.1 tons/year, as determined by appropriate engineering calculations.

I. Good air pollution control practices shall be implemented to minimize and significantly reduce nuisance dust from Bulk Commodity Haul Roads, which may be sources of fugitive particulate matter due to vehicle traffic or windblown dust. These practices shall provide for pavement on all regularly traveled roads and treatment (flushing, vacuuming, dust suppressant application, etc.) of paved and unpaved roads and areas that are routinely subject to vehicle traffic for very effective and effective control of dust, respectively (nominal 90 percent control for paved roads and areas and 80 percent control for unpaved roads and areas).

1. For this purpose, roads that serve a main office, employee parking areas or are used on a daily basis by operating and maintenance personnel for the plant in the course of their typical duties, roads that experience heavy use during regularly occurring maintenance of the power plant facility during the course of a year, shall all be considered to be subject to regular travel and are required to be paved. Regularly traveled roads shall be considered to be subject to routine vehicle traffic except as they are used primarily for periodic maintenance and are currently inactive or as traffic has been temporarily blocked off. Other roads shall be considered to be routinely traveled if activities are occurring such that they are experiencing significant vehicle traffic.

II. The handling of material collected from any roadway, parking area, or other open areas at the plant, which may be sources of fugitive particulate matter due to vehicle traffic or windblown dust, by sweeping or vacuuming trucks shall be enclosed or shall utilize spraying, pelletizing, screw conveying or other equivalent methods to control emission of particulate matter.

III. The Permittee shall carry out control of fugitive particulate matter emissions from Bulk Commodity Haul Roads, which may be sources of fugitive particulate matter due to

vehicle traffic or windblown dust, in accordance with a written operating program (Bulk Commodity Haul Roads Fugitive PM Program) describing the measures being implemented in accordance with required control technology and 35 IAC 212.314 to control emissions at each unit with the potential to generate significant quantities of such emissions, which program shall be kept current.

1. This program shall include maps or diagrams indicating the location of Bulk Commodity Haul Roads, which may be sources of fugitive particulate matter due to vehicle traffic or windblown dust, with the potential to generate significant quantities of fugitive particulate matter, with description of the unit (length, width, surface material, etc.) and volume and nature of expected vehicle traffic, or other activity on such unit, and an identification of any roadways that are not considered routinely traveled, with justification.

2. This program shall include a detailed description of the emissions control technique (e.g., vacuum truck, water spray, surfactant spray, water flushing, dust suppressant application, or sweeping) for the Bulk Commodity Haul Roads, which may be sources of fugitive particulate matter due to vehicle traffic or windblown dust, including: typical application rate; type and concentration of additives; normal frequency with which measures would be implemented; circumstances, in which the measure would not be implemented, e.g., recent precipitation; triggers for additional control, e.g., observation of 10 percent opacity; and calculated control efficiency for particulate matter emissions.

ii. Compliance Method (Construction Permit #01100065)

Monitoring

**Receiving, Transfer, Handling, Storage, Processing or Preparation (Crushing, etc.), and Loading Operations of Coal, Rock, Limestone, and Ash at the Source**:

A. Pursuant to Construction Permit #01100065, the Permittee shall conduct inspections of the loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of coal, rock, limestone, and ash on at least a monthly basis with personnel not directly responsible for the day-to-day operation of these units, for the specific purpose of verifying that the measures identified in The Material Handling Fugitive Emissions Program and other measures required to control emissions from the loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of coal, rock, limestone, and ash are being properly implemented. These inspections shall include observation for the presence of visible emissions, performed in accordance with USEPA Method 22, from buildings and structures in which the loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of coal, rock, limestone, and ash are located and from units from which the Permittee has elected to demonstrate no visible emissions. [T1]

**Bulk Commodity Haul Roads**:

B. Pursuant to Construction Permit #01100065, the Permittee shall conduct inspections of Bulk Commodity Haul Roads, which may be sources of fugitive particulate matter due to vehicle traffic or windblown dust, on at least a monthly basis with personnel not directly responsible for the day-to-day implementation of Bulk Commodity Haul Roads Fugitive PM Program, for the

specific purpose of verifying that the measures identified in the operating program and other measures required to control emissions are being properly implemented. [T1]

Recordkeeping

**Receiving, Transfer, Handling, Storage, Processing or Preparation (Crushing, etc.), and Loading Operations of Coal, Rock, Limestone, and Ash at the Source**:

C. Pursuant to Construction Permit #01100065, all logs and other operating records kept in conjunction with the monitoring station shall be considered required records, except that these records may be kept at the monitoring station until such time as the station is closed, when these records shall be transferred to the plant. [T1]

D. Pursuant to Construction Permit #01100065, the Permittee shall maintain records documenting implementation of the fugitive emission operating program, including: [T1]

I. Records for the monthly inspections to verify the implementation of continuous control measures (that are to be in place whenever a unit is in operation), including the date and time, the name of the responsible party, identification of the unit(s) that were inspected, and the observed condition of control measures;

II. Records for the implementation of intermittent control measures, i.e., application of suppressants including identification of the unit, identification of the suppressant, application rate, dates or date and time of applications, and quantity of total suppressant applied;

III. Records for application of physical or chemical control agents other than water including the name of the agent; target application concentration, if diluted with water; target application rate; and usage of the agent, gallons/month; and

IV. A log recording incidents when specified control measures were not present or were not used for a unit when it was in operation, including description, date, duration, means by which the incident was identified, and a statement of explanation.

**Bulk Commodity Haul Roads**:

E. Pursuant to Construction Permit #01100065: [T1]

I. The Permittee shall keep a file that contains the operating factors, if any, used to determine the amount of activity associated with Bulk Commodity Haul Roads, which may be sources of fugitive particulate matter due to vehicle traffic or windblown dust, or the particulate matter emissions from Bulk Commodity Haul Roads, which may be sources of fugitive particulate matter due to vehicle traffic or windblown dust, with supporting documentation.

II. The Permittee shall keep a file that contains the designated particulate matter emission rate, in tons/year, from each category of emission unit (e.g., traffic associated with receiving of limestone), with supporting calculations and documentation.

III. The Permittee shall maintain records documenting implementation of Bulk Commodity Haul Roads Fugitive PM Program, including:

1. For each treatment of Bulk Commodity Haul Roads, which may be sources of fugitive particulate matter due to vehicle traffic or windblown dust, the name and location of the Bulk Commodity Haul Roads, which may be sources of fugitive particulate matter due to vehicle traffic or windblown dust, the date and time, and the identification of the truck(s) or treatment equipment used.

2. For each application of water or chemical solution by truck: application rate of water or suppressant, frequency of each application, width of each application, total quantity of water or chemical used for each application and, for each application of chemical solution, the concentration and identity of the chemical.

3. For application of physical or chemical control agents: the name of the agent, application rate and frequency, and total quantity of agent and, if diluted, percent of concentration, used each day.

4. A log recording incidents when control measures were not used and incidents when additional control measures were used due to particular activities, including description, date, a statement of explanation, and expected duration of such circumstances.

IV. The Permittee shall record any period during which a roadway, parking area, or other open area at the plant, which may be sources of fugitive particulate matter due to vehicle traffic or windblown dust, was not properly controlled as required, which records shall include the following information and an estimate of the additional emissions of particulate matter that resulted, if any, with supporting calculations.

1. The date, time and estimated duration of the event.

2. A description of the event.

3. The manner in which the event was identified, if not readily apparent.

4. The probable cause for deviation, if known, including a description of any equipment malfunction/breakdown associated with the event.

5. Information on the magnitude of the deviation, including actual emissions or performance in terms of the applicable standard if measured or readily estimated; confirmation that standard procedures were followed or a description of any event-specific corrective actions taken.

6. A description of any preventative measures taken to prevent future occurrences, if appropriate.

V. The Permittee shall maintain records for the particulate matter emissions of the Bulk Commodity Haul Roads, which may be sources of fugitive particulate matter due to vehicle traffic or windblown dust, based on the source operating data, the above records for the Bulk Commodity Haul Roads, which may be sources of fugitive particulate matter due to vehicle traffic or windblown dust, including data for implementation of the operating program, and appropriate USEPA emission estimation methodology and emission factors, with supporting calculations.

Reporting

**Receiving, Transfer, Handling, Storage, Processing or Preparation (Crushing, etc.), and Loading Operations of Coal, Rock, Limestone, and Ash at the Source**:

F. Pursuant to Construction Permit #01100065, significant amendments to The Material Handling Fugitive Emissions Program by the Permittee shall be submitted to the Illinois EPA within 30 days for review. [T1]

G. Pursuant to Construction Permit #01100065, a revised Material Handling Fugitive Emissions Program shall be submitted to the Illinois EPA for review within 90 days of a request from the Illinois EPA for revision to address observed deficiencies in control of fugitive emissions. [T1]

**Roadways, Parking Areas, and Other Open Areas at the Source**:

H. Pursuant to Construction Permit #01100065, the Permittee shall submit copies of significant amendments to Bulk Commodity Haul Roads Fugitive PM Program by the Permittee within 30 days of the date that the amendment is made to the Illinois EPA for review as follows. [T1]

I. Pursuant to Construction Permit #01100065, a revised Roadway and Other Open Area Fugitive PM Program shall be submitted to the Illinois EPA for review within 90 days of a request from the Illinois EPA for revision to address observed deficiencies in control of fugitive particulate emissions. [T1]

## 4. Synthetic Minor Limits

As of the date of issuance of this permit, there are no source-wide synthetic minor limits that need to be included in this Condition.

## 5. Reporting Requirements

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

### a. Prompt Reporting

i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows:

I. Requirements in Conditions 3.1(a)(i), 3.1(b), 3.1(c), 3.1(d), 3.1(e), and 3.1(f).

II. Requirements in Conditions 3.2(c), and 3.2(d).

III. Requirements in Condition 3.3(a)(i).

B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).

ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).

iii. The deviation reports shall contain, at a minimum, the following information:

A. Date and time of the deviation.

B. Emission unit(s) and/or operation involved.

C. The duration of the event.

D. Probable cause of the deviation.

E. Corrective actions or preventative measures taken.

iv. All deviation reports required in this permit shall be identified, summarized, and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).

**b. Semiannual Reporting**

i. Pursuant to Section 39.5(7)(f)(i) of the Act, the Permittee shall submit a Semi-Annual Monitoring Report to the Illinois EPA, Air Compliance Section, summarizing required monitoring and identifying all instances of deviation from the permit, every six months as follows, unless more frequent reporting is required elsewhere in this permit.

| Monitoring Period | Report Due Date |
|---|---|
| January through June | July 31 |
| July through December | January 31 |

ii. The Semiannual Monitoring Report must be certified by a Responsible Official consistent with Condition 2.5(b).

Note: Required monitoring includes all applicable monitoring, testing, recordkeeping, and reporting requirements. This may include monitoring requirements not addressed within the Compliance Method Sections of this permit.

**c. Annual Emissions Reporting**

Pursuant to 35 IAC Part 254, the source shall submit an Annual Emission Report to the Air Quality Planning Section, due by May 1 of the year following the calendar year in which the emissions took place. All records and calculations upon which the verified and reported data are based must be retained by the source.

**d. Mandatory Greenhouse Gas Reporting – 40 CFR 98 Subpart C**

Note: See the Mandatory Greenhouse Gas Reporting requirements in Section 7.8.

## Section 4 – Emission Unit Requirements

### 4.1 Coal-Fired Boilers – Subject to 40 CFR 60 Subpart Da and 40 CFR 63 Subpart UUUUU

**1. Emission Units and Operations**

| *Emission Units* | *Pollutants Being Addressed* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|
| Unit 1<br>7,450 MMBtu/hour<br>EU10A | Opacity, PM, $SO_2$, Sulfuric Acid Mist, VOM, CO, $NO_X$, and HAP | 09/2007 | N/A | Low $NO_X$ Burners<br>Selective Catalytic Reduction<br>Dry Electrostatic Precipitator<br>Wet Electrostatic Precipitator<br>Lime Injection<br>Wet Flue Gas Desulfurization (Scrubber) | Opacity COMS<br>PM CEMS<br>$SO_2$ CEMS<br>CO CEMS<br>$NO_X$ CEMS<br>Mercury CEMS<br>$CO_2$ CEMS<br>Natural Gas Meter<br>Heat Input<br>Volumetric Flow Meter |
| Unit 2<br>7,450 MMBtu/hour<br>EU10B | Opacity, PM, $SO_2$, Sulfuric Acid Mist, VOM, CO, $NO_X$, and HAP | 09/2007 | N/A | Low $NO_X$ Burners<br>Selective Catalytic Reduction<br>Dry Electrostatic Precipitator<br>Wet Electrostatic Precipitator<br>Lime Injection<br>Wet Flue Gas Desulfurization (Scrubber) | Opacity COMS<br>PM CEMS<br>$SO_2$ CEMS<br>CO CEMS<br>$NO_X$ CEMS<br>Mercury CEMS<br>$CO_2$ CEMS<br>Natural Gas Meter<br>Heat Input<br>Volumetric Flow Meter |

## 2. Applicable Requirements

For the emission units in Condition 4.1.1 above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act. In addition, each coal-fired boiler shall also comply with the applicable State Only requirements in Section 8.2.

**a. i. Opacity Requirements**

A. Pursuant to 35 IAC 212.122(a), the Permittee shall not cause or allow the emission of smoke or other particulate matter into the atmosphere from either unit, having an opacity greater than 20 percent, except as provided in 35 IAC 212.124.

ii. Compliance Method (Opacity Requirements)

Testing

A. Pursuant to 40 CFR 60.50Da(b)(3), USEPA Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity.

B. Pursuant to Construction Permit #01100065, USEPA Method 9 shall be used for testing of opacity. [T1]

C. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall conduct three (3) 6-minute USEPA Method 9 observations for opacity of each boiler each calendar month that the boiler operates more than 36 hours in that month. The observation must be conducted during representative operating conditions.

Note: See Sections 2.3 and 7.1 for additional testing requirements.

Recordkeeping

D. Pursuant to Construction Permit #01100065, the Permittee shall record each period during which opacity of a coal-fired boiler exceeded the level of opacity at which emission testing demonstrated that the boiler would comply with particulate matter emission limits. [T1]

E. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep records for each observation for opacity conducted. These records shall include, at a minimum:

I. Date and time the observation was performed.

II. Name(s) and employer(s) of observers.

III. Identification of which equipment and emission point(s) was observed.

IV. Whether or not the equipment was running properly.

V. The findings of the observation, including the presence of any visible emissions.

VI. A description of any corrective action taken.

**b. i. Particulate Matter (PM) Requirements**

A. Pursuant to 40 CFR 60.42Da(c)(2), the Permittee shall not cause to be discharged into the atmosphere from either boiler any gases that contain PM in excess of 0.015 lb/MMBtu (6.4 ng/J) heat input derived from the combustion of coal.

B. Pursuant to 40 CFR 63.9991(a), the Permittee must meet the requirements in 40 CFR 63.69991(a)(1) below. The Permittee must meet these requirements at all times.

I. The Permittee must meet each applicable emission limit and work practice standard in 40 CFR 63 Subpart UUUUU Tables 1 through 3, for each EGU, except as provided under 40 CFR 63.10009.

1. Pursuant to 40 CFR 63 Subpart UUUUU Table 2 Item 1(a), for filterable PM, the Permittee must meet the following emission limits and work practice standards:

aa. Before July 6, 2027: 3.0E-2 lb/MMBtu or 3.0E-1 lb/MWh (gross output) and must collect a minimum of 1 dscm per run.

bb. On or after July 6, 2027: 1.0E-2 lb/MMBtu or 1.0E-1 lb/MWh (gross output) and must collect a minimum catch of 6.0 milligrams or a minimum sample volume of 4 dscm per run.

C. Pursuant to 35 IAC 212.204, the Permittee shall not cause or allow the emission of PM into the atmosphere from either coal-fired boiler to exceed 0.15 kg of PM per MW-hr of actual heat input (0.1 lbs/mmbtu) in any one-hour period.

D. Pursuant to Construction Permit #01100065, the PM emissions from each coal-fired boiler shall not exceed 0.015 lb/million Btu. This limit shall apply as a 3-hour block average. This limit shall not apply during startup, shutdown and malfunction. [T1-BACT]

E. Pursuant to Construction Permit #01100065 and Section 39.5(7)(a) of the Act, the $PM_{10}$ emissions from each boiler shall not exceed 0.018 lb/million Btu. This limit shall apply as a 3-hour block average. This limit shall not apply during startup, shutdown and malfunction. [T1R-BACT]

F. Pursuant to Construction Permit #01100065, emissions of PM/$PM_{10}$ Filterable from the boilers shall not exceed: [T1]

I. 112 lb/hour, each, on a three-hour average.

II. 490 tons/year, each. This limit addresses all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction.

III. 980 tons/year, combined. This limit addresses all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction.

G. Pursuant to Construction Permit #01100065 and Section 39.5(7)(a) of the Act, emissions of Total $PM_{10}$ from the boilers shall not exceed: [T1R]

I. 135 lb/hour, each, on a three-hour average.

II. 588 tons/year, each. This limit addresses all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction.

III. 1,175 tons/year, combined. This limit addresses all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction.

H. Pursuant to Construction Permit #01100065, all PM measured by USEPA Method 5 shall be considered $PM_{10}$ unless PM emissions are tested by USEPA Method 201 or 20lA, as specified in 35 IAC 212.108(a). These PM limits do not address condensable PM. [T1]

ii. Compliance Method (PM Requirements)

A. Pursuant to 40 CFR 60.48Da(a), the applicable PM emissions limit under 40 CFR 60.42Da applies at all times except during periods of startup, shutdown, or malfunction.

B. Pursuant to 40 CFR 60.48Da(f), compliance with the daily average PM emissions limit is determined by calculating the arithmetic average of all hourly emission rates each boiler operating day, except for data obtained during startup, shutdown, or malfunction periods. Daily averages are only calculated for boiler operating days that have non-out-of-control data for at least 18 hours of unit operation during which the standard applies. Instead, all of the non-out-of-control hourly emission rates of the operating day(s) not meeting the minimum 18 hours non-out-of-control data daily average requirement are averaged with all of the non-out-of-control hourly emission rates of the next boiler operating day with 18 hours or more of non-out-of-control PM CEMS data to determine compliance.

C. Pursuant to 40 CFR 63.10000(a), the Permittee must be in compliance with the emission limits in 40 CFR 63, Subpart UUUUU. These limits apply at all times except during periods of startup and shutdown.

D. Pursuant to 40 CFR 63.10010(i), compliance with the applicable PM emissions limit in 40 CFR 63 Subpart UUUUU Table 2 is determined on a 30-boiler operating day rolling average basis.

E. I. Pursuant to Construction Permit #01100065, compliance with the 0.015 lb/million Btu PM limit shall be determined by required emission testing for PM (filterable) and from equipment operation. [T1]

II. Pursuant to Construction Permit #01100065, compliance with the 0.018 lb/million Btu $PM_{10}$ limit shall be determined by required emission testing for PM (filterable and condensable) and from equipment operation. [T1]

Monitoring

F. Pursuant to 40 CFR 60.48Da(p), as an alternative to meeting the compliance provisions specified in 40 CFR 60.48Da(o), the Permittee elected to install, evaluate, maintain, and operate a CEMS measuring PM emissions discharged from the coal-fired boiler to the atmosphere and record the output of the system as specified in 40 CFR 60.48Da(p)(1) through (p)(8).

I. Pursuant to 40 CFR 60.48Da(p)(2), each CEMS shall be installed, evaluated, operated, and maintained according to the requirements in 40 CFR 60.49Da(v).

II. Pursuant to 40 CFR 60.48Da(p)(4), compliance with the applicable emissions limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emissions concentrations using the continuous monitoring system outlet data. The 24-hour block arithmetic average emission concentration shall be calculated using the USEPA Method 19 test section 4.1.

III. Pursuant to 40 CFR 60.48Da(p)(5)(i), non-out-of-control CEMS hourly averages shall be obtained for 90 percent of all operating hours on a 30-boiler operating day rolling average basis. At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

1. Pursuant to 40 CFR 60.49Da(g), the 1-hour averages required under 40 CFR 60.13(h) are expressed in ng/J (lb/MMBtu) heat input and used to calculate the average emission rates under 40 CFR 60.48Da. The 1-hour averages are calculated using the data points required under 40 CFR 60.13(h)(2).

IV. Pursuant to 40 CFR 60.48Da(p)(6), the 1-hour arithmetic averages required shall be expressed in ng/J, MMBtu/hr, or lb/MWh and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under 40 CFR 60.13(e)(2).

1. Pursuant to 40 CFR 60.49Da(g), the 1-hour averages required under 40 CFR 60.13(h) are expressed in ng/J (lb/MMBtu) heat input and used to calculate the average emission rates under 40 CFR 60.48Da. The 1-hour averages are calculated using the data points required under 40 CFR 60.13(h)(2).

V. Pursuant to 40 CFR 60.48Da(p)(7), all non-out-of-control CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of 40 CFR 60.48Da(j)(5) are not met.

VI. Pursuant to 40 CFR 60.48Da(p)(8), when PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Illinois EPA or USEPA Method 19 to provide, as necessary, non-out-of-control emissions data for a minimum of 90 percent of all operating hours per 30-boiler operating day rolling average.

G. Pursuant to 40 CFR 60.49Da(t), when demonstrating compliance with the output-based emissions limit under 40 CFR 60.42Da, the Permittee must install, certify, operate, and maintain a CEMS for measuring PM emissions according to the requirements of 40 CFR 60.49Da(v). When demonstrating compliance with the input-based emissions limit in 40 CFR 60.42Da, the Permittee shall install, certify, operate, and maintain a CEMS for measuring PM emissions according to the requirements of 40 CFR 60.49Da(v).

H. Pursuant to 40 CFR 63.10000(c)(1)(iv), the Permittee must monitor continuous performance through use of a PM CEMS.

I. Pursuant to 40 CFR 63.10007(b), the Permittee must conduct each performance test (including traditional 3-run stack tests and 30-boiler operating day tests based on CEMS data (or sorbent trap monitoring system data)) according to the requirements in 40 CFR 63 Subpart UUUUU Table 5.

I. Pursuant to 40 CFR 63 Subpart UUUUU Table 5 Item 1, to conduct a performance test for filterable particulate matter using PM CEMS, the Permittee must:

1. Operate and maintain the PM CEMS using Performance Specification 11 at 40 CFR Part 60 Appendix B and Procedure 2 at 40 CFR Part 60 Appendix F.

2. Convert hourly emission concentrations to 30 boiler operating day rolling average lb/MMBtu or lb/MWh emission rates using 40 CFR Part 60 Appendix A-7 Method 19 F-factor methodology or calculate using mass emissions rate and gross output data (See 40 CFR 63.10007(e)).

J. Pursuant to 40 CFR 63.10010(i), the Permittee must operate and maintain a PM CEMS.

I. Pursuant to 40 CFR 63.10010(i)(1), the PM CEMS must be installed and certified according to 40 CFR 63 Subpart UUUUU Appendix C Section 4.

II. Pursuant to 40 CFR 63.10010(i)(2), the Permittee shall operate, maintain, and quality-assure the data from the PM CEMS according to 40 CFR 63 Subpart UUUUU Appendix C Section 5.

III. Pursuant to 40 CFR 63.10010(i)(3), the Permittee must reduce the data from the PM CEMS to hourly averages in accordance with 40 CFR 63 Subpart UUUUU Appendix C Section 6.1.

IV. Pursuant to 40 CFR 63.10010(i)(4), the Permittee must collect data using the PM CEMS at all times the process unit is operating and at the intervals specified in 40 CFR 63.10010(a), except for required monitoring system quality assurance or quality control activities and any scheduled maintenance as defined in the site-specific monitoring plan.

K. Pursuant to Construction Permit #01100065: [T1]

I. The Permittee shall operate a particulate matter continuous monitoring system on each boiler for the purpose of compliance assurance monitoring. The PM continuous monitoring system shall monitor PM concentration downstream of the wet electrostatic precipitator (WESP).

II. The Permittee shall operate, calibrate, and maintain each such system in accordance with the applicable USEPA performance specification and other applicable requirements of the NSPS for monitoring systems and in a manner that is generally consistent with published USEPA guidance for use of such systems for compliance assurance monitoring.

III. The Permittee shall also operate and maintain these monitoring systems according to an approved site-specific monitoring plan.

L. Pursuant to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, the coal-fired boilers are subject to 40 CFR Part 64. The Permittee shall comply with the requirements of the CAM Plan described in Section 7.5 and Table 7.5.1, pursuant to 40 CFR Part 64 as submitted in the Permittee's CAM plan application. At all times, the Permittee shall

maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment, pursuant to 40 CFR 64.7(a) and (b).

Testing

M. Pursuant to 40 CFR 60.49Da(v), while using a CEMS measuring PM emissions to meet requirements of 40 CFR 60 Subpart Da, the Permittee shall install, certify, operate, and maintain the CEMS as specified in 40 CFR 60.49Da(v)(1) through (v)(4).

I. Pursuant to 40 CFR 60.49Da(v)(1), the Permittee shall conduct a performance evaluation of the CEMS according to the applicable requirements of 40 CFR 60.13, 40 CFR Part 60 Appendix B Performance Specification 11, and 40 CFR Part 60 Appendix F Procedure 2.

II. Pursuant to 40 CFR 60.49Da(v)(2), during each PM correlation testing run of the CEMS required by 40 CFR Part 60 Appendix B Performance Specification 11, PM and $O_2$ (or $CO_2$) data shall be collected concurrently (or within a 30- to 60-minute period) by both the CEMS and performance tests conducted using the following test methods.

1. Pursuant to 40 CFR 60.49Da(v)(2)(i), for PM, USEPA Method 5 or 5B or USEPA Method 17 shall be used; and

2. Pursuant to 40 CFR 60.49Da(v)(2)(ii), for $O_2$ (or $CO_2$), USEPA Method 3A or 3B, as applicable shall be used.

III. Pursuant to 40 CFR 60.49Da(v)(3), quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with 40 CFR Part 60 Appendix F Procedure 2. Relative Response Audits must be performed annually, and Response Correlation Audits must be performed every 3 years.

N. Pursuant to 40 CFR 60.50Da(b), in conducting the performance tests to determine compliance with the PM emissions limits in 40 CFR 60.42Da, the Permittee shall meet the requirements specified in 40 CFR 60.50Da(b)(1) through (3).

I. Pursuant to 40 CFR 60.50Da(b)(1), the Permittee shall measure filterable PM to determine compliance with the applicable PM emissions limit in 40 CFR 60.42Da as specified in 40 CFR 60.50Da(b)(1)(i) through (ii).

1. Pursuant to 40 CFR 60.50Da(b)(1)(i), the dry basis F factor ($O_2$) procedures in USEPA Method 19 shall be used to compute the emission rate of PM.

2. Pursuant to 40 CFR 60.50Da(b)(1)(ii), for the PM concentration, USEPA Method 5B shall be used downstream of the wet flue gas desulfurization (FGD).

aa. Pursuant to 40 CFR 60.50Da(b)(1)(ii)(A), the sampling time and sample volume for each run shall be at least 120 minutes and 1.70 dscm (60 dscf). The probe and filter holder heating system in the sampling train may be set to provide an average gas temperature of no greater than 160.14°C (320.25°F).

bb. Pursuant to 40 CFR 60.50Da(b)(1)(ii)(B), for each particulate run, the emission rate correction factor, integrated or grab sampling and analysis procedures of USEPA Method 3B shall be used to determine the $O_2$ concentration. The $O_2$ sample shall be obtained simultaneously with, and at the same traverse points as, the particulate run. If the particulate run has more than 12 traverse points, the $O_2$ traverse points may be reduced to 12 provided that USEPA Method 1 is used to locate the 12 $O_2$ traverse points. If the grab sampling procedure is used, the $O_2$ concentration for the run shall be the arithmetic mean of the sample $O_2$ concentrations at all traverse points.

O. Pursuant to Construction Permit #01100065, emission testing is required to show compliance on a 3-hour average basis for the hourly PM limitations. When compliance is determined from such testing, the results of such testing shall be compiled as the average of the individual test runs to determine compliance, as provided by 35 IAC Part 283. [T1]

Note: The results of the PM testing are used to show compliance with the annual emission limits.

P. I. Pursuant to Construction Permit #01100065, Method 5, or Methods 5 and Method 201 or 201A (40 CFR 51, Appendix M), with Method 19 as specified in 40 CFR 60.48a(b) shall be used for testing of PM, unless other methods adopted by or being developed by USEPA are specified or approved by the Illinois EPA. The Permittee may report all PM emissions measured by USEPA Method 5 as $PM_{10}$, in which case separate testing using USEPA Method 201 or 201A need not be performed. [T1]

II. Pursuant to Construction Permit #01100065, Method 202 shall be used for testing of condensable PM, unless other methods adopted by or being developed by USEPA are specified or approved by the Illinois EPA. Notwithstanding the general requirement to use USEPA test methods, appropriate refinements or adaptations shall be made to the USEPA test methods or other established test methods may be used for testing, subject to review and approval by the Illinois EPA to facilitate accurate and reliable measurements given the composition of the exhaust. In particular, adaptations shall be made to USEPA Method 202, to prevent positive bias from conversion of sulfur dioxide to sulfuric acid in the impingers, for example, by additional purges or separate, simultaneous measurements of the sulfuric acid emissions. [T1]

III. Pursuant to Construction Permit #01100065, the Permittee shall test PM emissions from each boiler as provided below: [T1]

1. If the results of two of these PM tests consecutively for a boiler demonstrate PM emissions that are two thirds or less than the applicable limits (e.g., 0.010 lb/mmBtu or less for PM, as compared to the limit of 0.015 lb/mmBtu), the maximum interval for PM testing of such boiler will be at least once every 48 months.

2. If a PM test for such a boiler shows PM emissions that are more than two thirds of an applicable limit, the maximum interval between testing shall revert to 30 months until two consecutive tests again show PM emissions that are two thirds or less than the applicable limits. For the purpose of these provisions, the two consecutive tests must be at least 24 months apart.

IV. Pursuant to Construction Permit #01100065, the Permittee shall perform emission tests as requested by the Illinois EPA for a boiler within 45 days of a written request by the Illinois EPA or such later date agreed to by the Illinois EPA. [T1]

Note: See Section 4.1.2(h)(ii) for mercury and hydrogen chloride testing required in conjunction with PM testing.

Note: See Sections 2.3 and 7.1 for additional testing requirements.

Recordkeeping

Q. Pursuant to 40 CFR 63.10010(i), the Permittee must record the output of the PM CEMS as specified in 40 CFR 63.10010(i)(1) through (4).

R. Pursuant to 40 CFR 63.10032(a), for PM, the Permittee must keep records according to 40 CFR 63.10032(a)(1) and (2). The Permittee must keep the records required under 40 CFR 63 Subpart UUUUU Appendix A and/or Appendix B and/or Appendix C and/or Appendix D. If electing to conduct periodic (e.g., quarterly or annual) performance stack tests, then, for each test, the Permittee must keep records of the applicable data elements under 40 CFR 63.7(g). The Permittee must also keep records of all data elements and other information in 40 CFR 63 Subpart UUUUU Appendix E that apply to the Permittee's compliance strategy.

I. Pursuant to 40 CFR 63.10032(a)(1), in accordance with 40 CFR 63.10(b)(2)(xiv), a copy of each notification or report submitted to comply with 40 CFR 63 Subpart UUUUU. The Permittee must also keep records of all supporting documentation for the initial Notifications of Compliance Status, semiannual compliance reports, or quarterly compliance reports submitted.

II. Pursuant to 40 CFR 63.10032(a)(2), records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in 40 CFR 63.10(b)(2)(viii).

S. Pursuant to Construction Permit #01100065, for each boiler, the Permittee shall maintain records of PM emissions and operation for each boiler-operating day. [T1]

T. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of PM emission test results from each boiler. These records shall, at a minimum, demonstrate if PM emissions are less than or equal to, or more than, two thirds of the applicable lb/mmBtu limits along with which testing frequency each boiler is following.

U. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of the hourly, monthly, and annual PM emissions from each boiler separately and combined (lbs/hour, tons/month, and tons/year) with associated calculations.

**c. i. Sulfur Dioxide ($SO_2$) Requirements**

A. Pursuant to 40 CFR 60.43Da(i)(1), the Permittee shall not cause to be discharged into the atmosphere from the coal-fired boilers, any gases that contain $SO_2$ in excess of either.

I. 1.4 lb/MWh (180 ng/J) gross energy output; or

II. 5 percent of the potential combustion concentration (95 percent reduction).

B. Pursuant to 40 CFR 63.9991(a), the Permittee must meet the requirements in 40 CFR 63.6991(a)(1). The Permittee must meet these requirements at all times.

I. Pursuant to 40 CFR 63.9991(a)(1), the Permittee must meet each applicable emission limit and work practice standard in 40 CFR 63 Subpart UUUUU Tables 1 through 3, for each EGU, except as provided under 40 CFR 63.10009.

1. Pursuant to 40 CFR 63 Subpart UUUUU Table 2 Item 1(b), for $SO_2$, the Permittee must meet 2.0E-1 lb/MMBtu or 1.5E0 lb/MWh and must use a $SO_2$ CEMS.

C. Pursuant to 40 CFR 63.9991(c), the Permittee may use the alternate $SO_2$ limit in 40 CFR 63 Subpart UUUUU Tables 1 and 2 because the EGU:

I. Pursuant to 40 CFR 63.9991(c)(1), has a system using wet or dry flue gas desulfurization technology and an $SO_2$ CEMS installed on the EGU; and

II. Pursuant to 40 CFR 63.9991(c)(2), at all times, the Permittee operates the wet or dry flue gas desulfurization technology and the $SO_2$ CEMS installed on the Electric utility steam generating unit (EGU) consistent with 40 CFR 63.10000(b).

D. Pursuant to Construction Permit #01100065, the $SO_2$ emissions from each boiler shall not exceed 0.182 lb/million Btu. This limit shall apply as a 30-day rolling average. This limit for $SO_2$ emissions applies to all operations of a boiler, that is, emissions of $SO_2$ during periods of startup, shutdown and malfunction are not excluded from the determination of compliance. [T1-BACT]

E. Pursuant to Construction Permit #01100065, $SO_2$ emissions from each boiler shall be controlled by 98 percent (2 percent of the potential combustion concentration of the coal supply for the boilers). This limit shall apply as a 12-month rolling average. This limit for $SO_2$ emissions apply to all operations of a boiler, that is, emissions of $SO_2$ during periods of startup, shutdown and malfunction are not excluded from the determination of compliance. [T1-BACT]

F. Pursuant to Construction Permit #01100065, emissions of $SO_2$ from the boilers shall not exceed: [T1]

I. 2,450 lb/hour, on a 24-hour average.

II. 5,933 tons/year, each. This limit addresses all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction.

III. 11,866 tons/year, combined. This limit addresses all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction.

ii. Compliance Method ($SO_2$ Requirements)

A. Pursuant to 40 CFR 60.43Da(g), compliance with the emission limitation and percent reduction requirements under 40 CFR 60.43Da are both determined on a 30-day rolling average basis.

B. Pursuant to 40 CFR 60.48Da(a), the applicable $SO_2$ emissions limit under 40 CFR 60.43Da applies at all times except during periods of startup, shutdown, or malfunction.

C. Pursuant to 40 CFR 60.48Da(b), compliance with the $SO_2$ emission limit and percentage reduction requirement under 40 CFR 60.43Da is based on the average emission rate for 30 successive boiler operating days. A separate performance test is completed at the end of each boiler operating day, and a new 30-boiler operating day rolling average emission rate for $SO_2$ and a new percent reduction for $SO_2$ are calculated to demonstrate compliance with the standards.

D. Pursuant to 40 CFR 60.48Da(d), compliance with applicable 30-boiler operating day rolling average $SO_2$ emission limit is determined by calculating the arithmetic average of all hourly emission rates for $SO_2$ for the 30 successive boiler operating days, except for data obtained during startup, shutdown, or malfunction.

E. Pursuant to 40 CFR 60.48Da(e), compliance with applicable $SO_2$ percentage reduction requirement is determined based on the average inlet and outlet $SO_2$ emission rates for the 30 successive boiler operating days.

F. Pursuant to 40 CFR 60.48Da(h), if the Permittee has not obtained the minimum quantity of emission data as required under 40 CFR 60.49Da, compliance of the coal-fired boiler with the emission requirements under 40 CFR 60.43Da for the day on which the 30-day period ends may be determined by the Illinois EPA by following the applicable procedures in 40 CFR 60 Appendix A Method 19 Section 7.

G. Pursuant to 40 CFR 60.48Da(m), the Permittee shall calculate $SO_2$ emissions as $1.660 \times 10^{-7}$ lb/scf-ppm times the average hourly $SO_2$ output concentration in ppm (measured according to the provisions of 40 CFR 60.49Da(b)), times the average hourly flow rate (measured according to the provisions of 40 CFR 60.49Da(l) or 40 CFR 60.49Da(m)), divided by the average hourly gross energy output (measured according to the provisions of 40 CFR 60.49Da(k)) or the average hourly net energy output, as applicable.

H. Pursuant to 40 CFR 63.10000(a), the Permittee must be in compliance with the emission limits in 40 CFR 63, Subpart UUUUU. These limits apply at all times except during periods of startup and shutdown.

I. Pursuant to Construction Permit #01100065: [T1]

  I. Compliance of the $SO_2$ emission limit of 0.182 lb/million Btu shall be determined using the compliance procedures set forth in the NSPS, 40 CFR 60.48a.

    1. In lieu of the compliance procedures of the NSPS, for a 30-day period that includes a startup of a coal-fired boiler, compliance may be determined on a mass-basis by calculating the average emission rate in lb/million Btu from the total emissions of $SO_2$ and the total heat input to the boiler during the period, as determined under the methodology of the Acid Rain program.

  II. The 98 percent control requirement shall apply as a 12-month rolling average with compliance determined based on the actual $SO_2$ emissions of the boiler determined using the procedures set forth under the Acid Rain program and its theoretical emissions of $SO_2$, that would result from combustion of coal without emissions control systems, calculated as the product of the average $SO_2$ input rate from “as fired” fuel

analyses, determined in accordance with 40 CFR 60, Appendix A, Method 19, and 60.48a(b), and the heat input to the boilers, also determined using procedures under the Acid Rain program.

J. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain and implement the compliance plan for the boilers as required by Compliance Commitment Agreement (CCA) A-2023-00013 ensuring that the boilers will be maintained and operated in such a way to ensure compliance with the lbs/mmBtu and lb/hr $SO_2$ limits.

Monitoring

K. Pursuant to 40 CFR 60.49Da(b), the Permittee must install, calibrate, maintain, and operate a CEMS, for measuring $SO_2$ emissions, as follows:

I. Pursuant to 40 CFR 60.49Da(b)(2), for a facility that qualifies under the numerical limit provisions of 40 CFR 60.43Da, $SO_2$ emissions are only monitored as discharged to the atmosphere.

II. Pursuant to 40 CFR 60.49Da(b)(4), because the Permittee has installed and certified a $SO_2$ CEMS according to the requirements of 40 CFR 75.20(c)(1) and 40 CFR 75 Appendix A, and is continuing to meet the ongoing quality assurance requirements of 40 CFR 75.21 and 40 CFR Part 75 Appendix B, that CEMS may be used to meet the requirements of 40 CFR 60.49Da(b), provided that:

1. Pursuant to 40 CFR 60.49Da(b)(4)(i), a $CO_2$ or $O_2$ continuous monitoring system is installed, calibrated, maintained and operated at the same location, according to 40 CFR 60.49Da(d); and

2. Pursuant to 40 CFR 60.49Da(b)(4)(ii)(A), when relative accuracy testing is conducted, $SO_2$ concentration data and $CO_2$ (or $O_2$) data are collected simultaneously; and

3. Pursuant to 40 CFR 60.49Da(b)(4)(ii)(B), in addition to meeting the applicable $SO_2$ and $CO_2$ (or $O_2$) relative accuracy specifications in 40 CFR Part 75 Appendix B Figure 2, the relative accuracy (RA) standard in 40 CFR 60 Appendix B Performance Specification 2 Section 13.2 is met when the RA is calculated on a lb/MMBtu basis; and

4. Pursuant to 40 CFR 60.49Da(b)(4)(iii), the reporting requirements of 40 CFR 60.51Da are met. The $SO_2$ and, if required, $CO_2$ (or $O_2$) data reported to meet the requirements of 40 CFR 60.51Da shall not include substitute data values derived from the missing data procedures in 40 CFR 75 Subpart D, nor shall the $SO_2$ data have been bias adjusted according to the procedures of 40 CFR Part 75.

L. Pursuant to 40 CFR 63.10000(c)(1)(v), the Permittee shall demonstrate continuous compliance by operating a $SO_2$ CEMS installed and operated in accordance with 40 CFR Part 75 to demonstrate compliance with the applicable $SO_2$ emissions limit in 40 CFR 63 Subpart UUUUU.

M. Pursuant to 40 CFR 63.10007(b) and 40 CFR 63, Subpart UUUUU Table 5 Item 5, the Permittee shall:

1. Operate and maintain the CEMS using 40 CFR Part 75 and 40 CFR 63.10010(a) and (f).

2. Convert hourly emission concentrations to 30 boiler operating day rolling average lb/MMBtu or lb/MWh emission rates using 40 CFR Part 60 Appendix A-7 Method 19 F-factor methodology or calculate using mass emissions.

N. Pursuant to 40 CFR 63.10007(e), to use the results of performance testing to determine compliance with the applicable emission limits in 40 CFR 63 Subpart UUUUU Table 1 or 2, proceed as follows:

I. Pursuant to 40 CFR 63.10007(e)(2)(i), the Permittee must use the F-factor methodology and equations in 40 CFR 60 Appendix A-7 USEPA Method 19 Sections 12.2 and 12.3. In cases where an appropriate F-factor is not listed in USEPA Method 19 Table 19-2, the Permittee may use F-factors from 40 CFR 75 Appendix F Section 3.3.5 Table 1, or F-factors derived using the procedures in 40 CFR Part 75 Section 3.3.6. Multiply $SO_2$ ppm by $1.66 \times 10^{-7}$ to convert the pollutant concentrations measured during the initial performance tests to units of lb/scf, for use in the applicable USEPA Method 19 equations.

O. Pursuant to 40 CFR 63.10007(e)(3), to determine compliance with emission limits expressed in lb/MWh or lb/GWh, the Permittee must first calculate the pollutant mass emission rate during the performance test, in units of lb/h. Use an equation that has the general form of 40 CFR 63 Subpart UUUUU Appendix A Equation A-2 or A-3, replacing the value of K with 1.66 × 10−7 lb/scf-ppm for $SO_2$, and defining $C_h$ as the average $SO_2$. This calculation requires stack gas volumetric flow rate (scfh) and (in some cases) moisture content data (see 40 CFR 63.10005(h)(3) and 63.10010). Then, if the applicable emission limit is in units of lb/GWh, use 40 CFR 63 Subpart UUUUU Appendix A Equation A-4 to calculate the pollutant emission rate in lb/GWh. In this calculation, define (M)h as the calculated pollutant mass emission rate for the performance test (lb/h), and define (MW)h as the average electrical load during the performance test (megawatts). If the applicable emission limit is in lb/MWh rather than lb/GWh, omit the 103 term from Equation A-4 to determine the pollutant emission rate in lb/MWh.

P. Pursuant to 40 CFR 63.10010(f)(1), the Permittee must install the monitor at the outlet of the EGU, downstream of all emission control devices, and the Permittee must certify, operate, and maintain the CEMS according to 40 CFR Part 75.

Q. Pursuant to 40 CFR 63.10010(f)(2), for on-going quality assurance (QA), the $SO_2$ CEMS must meet the applicable daily, quarterly, and semiannual or annual requirements in 40 CFR Part 75 Appendix B Sections 2.1 through 2.3, with the following addition: the Permittee must perform the linearity checks required in 40 CFR Part 75 Appendix B Section 2.2 if the $SO_2$ CEMS has a span value of 30 ppm or less.

R. Pursuant to Construction Permit #01100065, continuous emission monitoring is required to show compliance with the 24-hour average $SO_2$ emission limit. Monitoring data shall be compiled on a calendar day basis to determine compliance. [T1]

Testing

S. Pursuant to 40 CFR 60.49Da(h)(1), when it becomes necessary to supplement CEMS data to meet the minimum data requirements in 40 CFR 60.49Da(f), the Permittee shall use USEPA Method 6 shall be used to determine the $SO_2$ concentration at the same location as the $SO_2$

monitor. Samples shall be taken at 60-minute intervals. The sampling time and sample volume for each sample shall be at least 20 minutes and 0.020 dscm (0.71 dscf). Each sample represents a 1-hour average.

T. Pursuant to 40 CFR 60.49Da(i), the Permittee shall use methods and procedures in 40 CFR 60.49Da(i) to conduct monitoring system performance evaluations under 40 CFR 60.13(c) and calibration checks under 40 CFR 60.13(d). Acceptable alternative methods and procedures are given in 40 CFR 60.49Da(j).

I. Pursuant to 40 CFR 60.49Da(i)(1), USEPA Method 6 shall be used to determine $SO_2$ concentrations.

II. Pursuant to 40 CFR 60.49Da(i)(2), $SO_2$ shall be used for preparing the calibration gas mixtures (in $N_2$, as applicable) under 40 CFR Part 60 Appendix B Performance Specification 2.

III. Pursuant to 40 CFR 60.49Da(i)(5), the span value of the $SO_2$ CEMS at the inlet to the $SO_2$ control device is 125 percent of the maximum estimated hourly potential emissions of the fuel fired, and the outlet of the $SO_2$ control device is 50 percent of maximum estimated hourly potential emissions of the fuel fired. If the Permittee elects to determine span values under 40 CFR 60.49Da(i)(3)(ii), $SO_2$ span values shall be determined according to 40 CFR 75 Appendix A Section 2.1.1.

U. Pursuant to 40 CFR 60.49Da(j), the Permittee may use the following as alternatives to the reference methods and procedures specified in 40 CFR 60.49Da.

I. Pursuant to 40 CFR 60.49Da(j)(1), for USEPA Method 6, USEPA Method 6A or 6B (whenever USEPA Methods 6 and 3 or 3B data are used) or 6C may be used. Each USEPA Method 6B sample obtained over 24 hours represents 24 1-hour averages. If USEPA Method 6A or 6B is used under 40 CFR 60.49Da(i), the conditions under 40 CFR 60.48Da(d)(1) apply; these conditions do not apply under 40 CFR 60.49Da(h).

V. Pursuant to 40 CFR 60.50Da(c), the Permittee shall determine compliance with the $SO_2$ standards in 40 CFR 60.43Da as follows:

I. Pursuant to 40 CFR 60.50Da(c)(1), the percent of potential $SO_2$ emissions (%Ps) to the atmosphere shall be computed using the following equation:

$$\%P_s = \frac{(100 - \%R_f)(100 - \%R_g)}{100}$$

Where:

%Ps = Percent of potential $SO_2$ emissions, percent.

%Rf = Percent reduction from fuel pretreatment, percent.

%Rg = Percent reduction by $SO_2$ control system, percent.

II. Pursuant to 40 CFR 60.50Da(c)(2), the procedures in USEPA Method 19 may be used to determine percent reduction (%Rf) of sulfur by such processes as fuel pretreatment (physical coal cleaning, hydrodesulfurization of fuel oil, etc.), coal pulverizers, and bottom and fly ash interactions. This determination is optional.

III. Pursuant to 40 CFR 60.50Da(c)(3), the procedures in USEPA Method 19 shall be used to determine the percent $SO_2$ reduction (%Rg) of any $SO_2$ control system. Alternatively, a combination of an "as fired" fuel monitor and emission rates measured after the control system, following the procedures in USEPA Method 19, may be used if the percent reduction is calculated using the average emission rate from the $SO_2$ control device and the average $SO_2$ input rate from the "as fired" fuel analysis for 30 successive boiler operating days.

IV. Pursuant to 40 CFR 60.50Da(c)(4), the appropriate procedures in USEPA Method 19 shall be used to determine the emission rate.

V. Pursuant to 40 CFR 60.50Da(c)(5), the CEMS in 40 CFR 60.49Da(b) and (d) shall be used to determine the concentrations of $SO_2$ and $CO_2$ or $O_2$.

W. Pursuant to Construction Permit #01100065, the Permittee shall perform emission tests as requested by the Illinois EPA for a boiler within 45 days of a written request by the Illinois EPA or such later date agreed to by the Illinois EPA. [T1]

Note: See Sections 2.3 and 7.1 for additional testing requirements.

Recordkeeping

X. Pursuant to 40 CFR 60.49Da(b), the Permittee must record the output of the $SO_2$ CEMS as required by 40 CFR 60.49Da(b).

U. Pursuant to 40 CFR 63.10010(f)(3), the Permittee must calculate and record a 30-boiler operating day rolling average $SO_2$ emission rate in the units of the standard, updated after each new boiler operating day. Each 30-boiler operating day rolling average emission rate is the average of all of the valid hourly $SO_2$ emission rates in the 30-boiler operating day period.

Z. Pursuant to 40 CFR 63.10010(f)(4), the Permittee must use only unadjusted, quality-assured $SO_2$ concentration values in the emissions calculations. The Permittee shall not apply bias adjustment factors to the 40 CFR Part 75 $SO_2$ data and shall not use 40 CFR Part 75 substitute data values. For startup or shutdown hours (as defined in 40 CFR 63.10042) the default gross output and the diluent cap are available for use in the hourly $SO_2$ emission rate calculations, as described in 40 CFR 63.10007(f). The Permittee shall use a flag to identify each startup or shutdown hour and report a special code if the diluent cap or default gross output is used to calculate the $SO_2$ emission rate for any of these hours.

AA. Pursuant to Construction Permit #01100065, for each boiler, the Permittee shall maintain records of the following items related to emissions: [T1]

I. Records of $SO_2$ emissions and operation for each boiler-operating day.

II. With respect to the $SO_2$ reduction-based standard in 40 CFR 60.43a(a)(1), for each 30-day averaging period, the $SO_2$ emissions in lb/million Btu and the required $SO_2$ emission

rate as determined by applying the permissible emission fraction to the potential $SO_2$ emission rate of the coal supply.

III. With respect to the $SO_2$ 98 percent control (2 percent of the potential combustion concentration of the coal supply for the boilers) reduction, for each 12-month period, the actual $SO_2$ emissions, the theoretical "uncontrolled" $SO_2$ emissions, and the level of $SO_2$ control achieved.

BB. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of the hourly, monthly, and annual $SO_2$ emissions from each boiler separately and combined (lbs/hour, tons/month, and tons/year) with associated calculations.

CC. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of the maintenance of, and the implementation of, the compliance plan for the coal boilers as required by CCA A-2023-00013 to ensure that the boilers are maintained and operated in such a way to ensure compliance with the lbs/mmBtu and lb/hr $SO_2$ limits.

**d. i. <u>Sulfuric Acid Mist Requirements</u>**

A. Pursuant to Construction Permit #01100065, the Sulfuric Acid Mist emissions from each boiler shall not exceed 0.005 lb/million Btu. This limit shall apply as a 3-hour block average. This limit shall not apply during startup, shutdown and malfunction. [T1]

B. Pursuant to Construction Permit #01100065, emissions of Sulfuric Acid Mist from the boilers shall not exceed: [T1]

I. 37.1 lb/hour, each, on a 3-hour average.

II. 162.5 tons/year, each. This limit addresses all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction.

III. 325 tons/year, combined. This limit addresses all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction.

ii. <u>Compliance Method (Sulfuric Acid Mist Requirements)</u>

A. Pursuant to Construction Permit #01100065, compliance with the Sulfuric Acid Mist emission limit of 0.005 lb/million Btu shall be determined by emission testing and equipment operation. [T1-BACT]

B. Pursuant to Section 39.5(7)(b) of the Act, compliance with the annual Sulfuric Acid Mist emission limits shall be determined on a monthly basis from the sum of data for the current month plus the preceding 11 months (running 12-month total).

<u>Monitoring</u>

C. Pursuant to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, the coal-fired boilers are subject to 40 CFR Part 64. The Permittee shall comply with the requirements of the CAM Plan described in Section 7.5 and Table 7.5.1, pursuant to 40 CFR Part 64 as submitted in the Permittee's CAM plan application. At all times, the Permittee shall

maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment, pursuant to 40 CFR 64.7(a) and (b).

D. Pursuant to Section 39.5(7)(b) of the Act, emissions of Sulfuric Acid Mist shall be calculated based on fuel data and emission factors derived from the most recent stack testing results.

Testing

E. Pursuant to Construction Permit #01100065, USEPA Method 8 shall be used for testing of Sulfuric Acid Mist, unless other methods adopted by or being developed by USEPA are specified or approved by the Illinois EPA. Notwithstanding the general requirement to use USEPA test methods, appropriate refinements or adaptations shall be made to the USEPA test methods or other established test methods may be used for testing, subject to review and approval by the Illinois EPA to facilitate accurate and reliable measurements given the composition of the exhaust. In particular, adaptations shall be made to USEPA Method 202, to prevent positive bias from conversion of sulfur dioxide to sulfuric acid in the impingers, for example, by additional purges or separate, simultaneous measurements of the sulfuric acid emissions. [T1]

I. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall test the coal-fired boilers Unit 1 and 2 for Sulfuric Acid Mist using Method 8 prior to TBD.

II. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall test the coal-fired boilers Unit 1 and 2 for Sulfuric Acid Mist using Method 8 every 5 years.

F. Pursuant to Construction Permit #01100065, the Permittee shall perform emission tests as requested by the Illinois EPA for a boiler within 45 days of a written request by the Illinois EPA or such later date agreed to by the Illinois EPA. [T1]

G. Pursuant to Construction Permit #01100065, emission testing is required to show compliance on a 3-hour average basis for the hourly Sulfuric Acid limitations. When compliance is determined from such testing, the results of such testing shall be compiled as the average of the individual test runs to determine compliance, as provided by 35 IAC Part 283. [T1]

Note: See Sections 2.3 and 7.1 for additional testing requirements.

Recordkeeping

H. Pursuant to Section 39.5(7)(b) of the Act:

I. The Permittee shall maintain records of the required tests for Sulfuric Acid Mist.

II. The Permittee shall maintain records of the hourly, monthly, and annual Sulfuric Acid Mist emissions from each boiler separately and combined (lbs/hour, tons/month, and tons/year) with associated calculations.

**e. i. Volatile Organic Material (VOM) Requirements**

A. Pursuant to Construction Permit #01100065, the VOM emissions from each boiler shall not exceed 0.004 lb/million Btu. This limit shall apply as a 3-hour block average. This limit shall not apply during startup, shutdown and malfunction. [T1-BACT]

B. Pursuant to Construction Permit #01100065, emissions of VOM from the boilers shall not exceed: [T1]

I. 29.8 lb/hour, each, on a 3-hour average.

II. 130 tons/year, each. This limit addresses all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction.

III. 260 tons/year, combined. This limit addresses all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction.

C. Pursuant to Section 39.5(7)(a) of the Act, emissions of VOM from each boiler shall not exceed 37.7 tons/year. This limit addresses all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction. [T1N]

ii. Compliance Method (VOM Requirements)

A. Pursuant to Construction Permit #01100065, compliance with the VOM emission limit of 0.004 lb/million Btu shall be determined by emission testing and equipment operation. [T1]

B. Pursuant to Section 39.5(7)(b) of the Act, compliance with the annual VOM emission limits shall be determined on a monthly basis from the sum of data for the current month plus the preceding 11 months (running 12-month total).

Testing

C. Pursuant to Construction Permit #01100065, USEPA Methods 18 and 25A shall be used for testing of VOM, unless other methods adopted by or being developed by USEPA are specified or approved by the Illinois EPA. The Permittee may exclude methane, ethane, and other exempt compounds from the results of any VOM test provided that the test protocol to quantify and correct for any such compounds is included in the test plan approved by the Illinois EPA. [T1]

I. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall test the coal-fired boilers Unit 1 and 2 for VOM using Methods 18 and 25A prior to TBD.

II. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall test the coal-fired boilers Unit 1 and 2 for VOM using Methods 18 and 25A every 5 years.

D. Pursuant to Construction Permit #01100065, the Permittee shall perform emission tests as requested by the Illinois EPA for a boiler within 45 days of a written request by the Illinois EPA or such later date agreed to by the Illinois EPA. [T1]

E. Pursuant to Construction Permit #01100065, emission testing is required to show compliance on a 3-hour average basis for the hourly VOM limitations. When compliance is determined from such testing, the results of such testing shall be compiled as the average of the individual test runs to determine compliance, as provided by 35 IAC Part 283.

Note: See Sections 2.3 and 7.1 for additional testing requirements.

Recordkeeping

F. Pursuant to Construction Permit #01100065, for each boiler, the Permittee shall maintain records of emissions of VOM from the boiler, based on fuel usage and other operating data for the boiler and appropriate emission factors, with supporting documentation. [T1]

G. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of the required tests of VOM from each boiler.

H. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of the hourly, monthly, and annual VOM emissions from each boiler separately and combined (lbs/hour, tons/month, and tons/year) with associated calculations.

**f. i. Carbon Monoxide (CO) Requirements**

A. Pursuant to 35 IAC 216.121, the Permittee shall not cause or allow the emission of carbon monoxide (CO) into the atmosphere from either coal-fired boiler to exceed 200 ppm, corrected to 50 percent excess air.

B. Pursuant to Construction Permit #01100065: [T1-BACT]

I. The CO emissions from each boiler shall not exceed 0.12 lb/million Btu. This limit shall apply as a 24-hour block average basis. This limit shall not apply during periods of startup and shutdown.

II. The CO emissions from each boiler shall not exceed 893 lb/hr for startup and shutdown. This limit shall apply as a 24-hour block average basis. (For a startup event, the 24-hour period shall begin with the startup of the boiler, i.e., initial firing of fuel. For a shutdown event, the 24-hour period shall end with the shutdown of the boiler, i.e., cessation of fuel flow to the boiler.)

C. Pursuant to Construction Permit #01100065, emissions of CO from the boilers shall not exceed: [T1]

I. 893 lb/hour, on a 24-hour average.

II. 3,912 tons/year, each. This limit addresses all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction.

III. 7,824 tons/year, combined. This limit addresses all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction.

D. Pursuant to Section 39.5(7)(a) of the Act, emissions of CO from each boiler shall not exceed 394 tons/year. This limit addresses all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction. [T1N]

ii. Compliance Method (CO Requirements)

Monitoring

A. Pursuant to Construction Permit #01100065, continuous emission monitoring is required to show compliance with the 24-hour average CO emission limit. Monitoring data shall be compiled on a calendar day basis to determine compliance, except for a calendar day in which a

startup or shutdown of a boiler occurred for which monitoring data shall be compiled for the 24-hour period following or preceding such event, as appropriate. [T1]

Testing

B. Pursuant to Construction Permit #01100065, the Permittee shall perform emission tests as requested by the Illinois EPA for a boiler within 45 days of a written request by the Illinois EPA or such later date agreed to by the Illinois EPA. [T1]

Note: See Sections 2.3 and 7.1 for additional testing requirements.

Recordkeeping

C. Pursuant to Construction Permit #01100065, for each boiler, the Permittee shall maintain records of CO emissions of the boiler based on the continuous emissions monitoring system. [T1]

D. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of the hourly, monthly, and annual CO emissions from each boiler separately and combined (lbs/hour, tons/month, and tons/year), with associated calculations.

**g. i. Nitrogen Oxide ($NO_X$) Requirements**

A. Pursuant to 40 CFR 60.44Da(e)(1), the Permittee shall not cause to be discharged into the atmosphere from the coal-fired boilers any gases that contain $NO_X$ (expressed as $NO_2$) in excess of 1.0 lb/MWh (130 ng/J) gross energy output as determined on a 30-boiler operating day rolling average basis.

B. Pursuant to 35 IAC 217.706(a), the Permittee shall not cause or allow the emissions of $NO_X$ into the atmosphere from either coal-fired boiler to exceed 0.25 lbs/mmbtu of actual heat input during each ozone control period (May 1 through September 30), based on a control period average for that unit.

I. Pursuant to 35 IAC 217.706(b), notwithstanding the emission limitation in 35 IAC 217.706(a), any coal-fired boiler subject to a more stringent $NO_X$ emission limitation pursuant to any State or federal statute, including the Act, the Clean Air Act, or any regulations promulgated thereunder, shall comply with both the requirements of 35 IAC 217 Subpart U and that more stringent emission limitation.

C. Pursuant to Construction Permit #01100065, the $NO_X$ emissions from each boiler shall not exceed 0.07 lb/million Btu. This limit shall apply as a 30-day rolling average. This limit for $NO_X$ emissions applies to all operations of a boiler, that is, emissions of $NO_X$ during periods of startup, shutdown and malfunction are not excluded from the determination of compliance. [T1-BACT]

D. Pursuant to Construction Permit #01100065, emissions of $NO_X$ from the boilers shall not exceed: [T1]

I. 893 lb/hour, on a 24-hour average.

This limitation does not apply during startup and shutdown. The emissions of NOx from the boilers during such periods shall comply with the BACT limit for $NO_X$, which applies as a 30-day average.

II. 2,282 tons/year, each. This limit addresses all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction.

III. 4,564 tons/year, combined. This limit addresses all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction.

ii. Compliance Method ($NO_x$ Requirements)

A. Pursuant to 40 CFR 60.48Da(a), the applicable $NO_X$ emissions limit under 40 CFR 60.44Da applies at all times except during periods of startup, shutdown, or malfunction.

B. Pursuant to 40 CFR 60.48Da(b), compliance with the $NO_X$ emission limit under 40 CFR 60.44Da is based on the average emission rate for 30 successive boiler operating days. A separate performance test is completed at the end of each boiler operating day, and a new 30-boiler operating day rolling average emission rate for $NO_X$ is calculated to demonstrate compliance with the standards.

C. Pursuant to 40 CFR 60.48Da(d), compliance with applicable 30-boiler operating day rolling average $NO_X$ emission limit is determined by calculating the arithmetic average of all hourly emission rate for $NO_X$ for the 30 successive boiler operating days, except for data obtained during startup, shutdown, or malfunction.

D. Pursuant to 40 CFR 60.48Da(h), if the Permittee has not obtained the minimum quantity of emission data as required under 40 CFR 60.49Da, compliance of the coal-fired boiler with the emission requirements under 40 CFR 60.44Da for the day on which the 30-day period ends may be determined by the Illinois EPA by following the applicable procedures in 40 CFR 60 Appendix A Method 19 Section 7.

E. Pursuant to 40 CFR 60.48Da(i), the Permittee shall calculate $NO_X$ emissions as 1.194 × 10−7 lb/scf-ppm times the average hourly $NO_X$ output concentration in ppm (measured according to the provisions of 40 CFR 60.49Da(c)), times the average hourly flow rate (measured in scfh, according to the provisions of 40 CFR 60.49Da(l) or 40 CFR 60.49Da(m)), divided by the average hourly gross energy output (measured according to the provisions of 40 CFR 60.49Da(k)) or the average hourly net energy output, as applicable.

F. Pursuant to Construction Permit #01100065, the $NO_X$ emission limit from each boiler of 0.07 lb/million Btu shall apply as a 30-day rolling average using the compliance procedures set forth in the NSPS, 40 CFR 60.48a. In lieu of the compliance procedures of the NSPS, for a 30-day period that includes a startup or shutdown of a boiler, compliance may be determined on a mass-basis by calculating the average emission rate in lb/million Btu from the total emissions of $NO_X$ and the total heat input to the boiler during the period, as determined under the methodology of the $NO_X$ Trading program. [T1]

Monitoring

G. Pursuant to 35 IAC 217.710(a), the Permittee shall install, calibrate, maintain and operate continuous emissions monitoring systems (CEMS) for $NO_X$ that meet the requirements of 40 CFR 75, subpart B.

H. Pursuant to 40 CFR 60.49Da(c)(2), because the Permittee has installed a $NO_X$ emission rate CEMS to meet the requirements of 40 CFR Part 75 and is continuing to meet the ongoing requirements of 40 CFR Part 75, that CEMS may be used to meet the requirements of 40 CFR 60.49Da, except that the Permittee shall also meet the requirements of 40 CFR 60.51Da. Data reported to meet the requirements of 40 CFR 60.51Da shall not include data substituted using the missing data procedures in 40 CFR 75 Subpart D, nor shall the data have been bias adjusted according to the procedures of 40 CFR Part 75.

I. Pursuant to 40 CFR 60.49Da(h)(2), when it becomes necessary to supplement CEMS data to meet the minimum data requirements in 40 CFR 60.49Da(f), the Permittee shall use USEPA Method 7 to determine the $NO_X$ concentration at the same location as the $NO_X$ monitor. Samples shall be taken at 30-minute intervals. The arithmetic average of two consecutive samples represents a 1-hour average.

J. Pursuant to Construction Permit #01100065, continuous emission monitoring is required to show compliance with the 24-hour average $NO_X$ emission limit. Monitoring data shall be compiled on a calendar day basis to determine compliance, except for a calendar day in which a startup or shutdown of a boiler occurred for which monitoring data shall be compiled for the 24-hour period following or preceding such event, as appropriate. [T1]

Testing

K. Pursuant to 40 CFR 60.49Da(i), the Permittee shall use methods and procedures in 40 CFR 60.49Da(i) to conduct monitoring system performance evaluations under 40 CFR 60.13(c) and calibration checks under 40 CFR 60.13(d). Acceptable alternative methods and procedures are given in 40 CFR 60.49Da(j).

I. Pursuant to 40 CFR 60.49Da(i)(1), USEPA Method 7 shall be used to determine $NO_X$ concentrations.

II. Pursuant to 40 CFR 60.49Da(i)(2), $NO_X$ (NO) shall be used for preparing the calibration gas mixtures (in $N_2$, as applicable) under 40 CFR Part 60 Appendix B Performance Specification 2.

III. Pursuant to 40 CFR 60.49Da(i)(3), span values for a CEMS measuring $NO_X$ shall be determined using one of the following procedures:

1. Pursuant to 40 CFR 60.49Da(i)(3)(i), except as provided under 40 CFR 60.49Da(i)(3)(ii), $NO_X$ span values shall be determined as follows:

| Fossil fuel | Span values for $NO_X$ (ppm) |
|---|---|
| Solid | 1,000. |

2. Pursuant to 40 CFR 60.49Da(i)(3)(ii), as an alternative to meeting the requirements of 40 CFR 60.49Da(i)(3)(i), the Permittee shall use the $NO_X$ span values determined according to 40 CFR Part 75 Appendix A Section 2.1.2.

L. Pursuant to 40 CFR 60.49Da(j), the Permittee shall use the following as alternatives to the reference methods and procedures specified in 40 CFR 60.49Da.

I. Pursuant to 40 CFR 60.49Da(j)(2), for USEPA Method 7, USEPA Method 7A, 7C, 7D, or 7E may be used. If USEPA Method 7C, 7D, or 7E is used, the sampling time for each run shall be 1 hour.

M. Pursuant to 40 CFR 60.50Da(d), the Permittee shall determine compliance with the $NO_X$ standard in 40 CFR 60.44Da as follows:

I. 40 CFR 60.50Da(d)(1), the appropriate procedures in USEPA Method 19 shall be used to determine the emission rate of $NO_X$.

II. 40 CFR 60.50Da(d)(2), the continuous monitoring system in 40 CFR 60.49Da(c) and (d) shall be used to determine the concentrations of $NO_X$ and $CO_2$ or $O_2$.

N. Pursuant to Construction Permit #01100065, the Permittee shall perform emission tests as requested by the Illinois EPA for a boiler within 45 days of a written request by the Illinois EPA or such later date agreed to by the Illinois EPA. [T1]

Note: See Sections 2.3 and 7.1 for additional testing requirements.

Recordkeeping

O. Pursuant to 40 CFR 60.49Da(c), the Permittee must record the output of the $NO_X$ CEMS as required by 40 CFR 60.49Da(c).

P. Pursuant to 35 IAC 217.712(a), the Permittee shall comply with the recordkeeping requirements of 40 CFR 75 applicable to $NO_X$ emissions during the ozone control period.

I. Pursuant to 35 IAC 217.712(f), the Permittee shall keep and maintain, for 5 years, all records and data necessary to demonstrate compliance with the requirements of 35 IAC 217 Subpart V, and upon request make such records and data available to Illinois EPA and USEPA representatives for inspection and copying during working hours.

Q. Pursuant to Construction Permit #01100065, for each boiler, the Permittee shall maintain records of $NO_X$ emissions and operation for each boiler-operating day, as specified by 40 CFR 60.49Da. [T1]

R. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of the hourly, monthly, and annual $NO_X$ emissions from each boiler separately and combined (lbs/hour, tons/month, and tons/year) with associated calculations.

**h. i. Hazardous Air Pollutant (HAP) Requirements**

A. Pursuant to 40 CFR 63.9991(a), the Permittee must meet the requirements in 40 CFR 63.6991(a)(1). The Permittee must meet these requirements at all times.

I. Pursuant to 40 CFR 63.9991(a)(1), the Permittee must meet each applicable emission limit in 40 CFR 63 Subpart UUUUU Table 1 through 3, for each EGU, except as provided under 40 CFR 63.10009.

1. Pursuant to 40 CFR 63 Subpart UUUUU, Table 2 Item 1(c), for mercury (Hg), the Permittee must meet 1.2E0 lb/TBtu or 1.3E-2 lb/GWh and must use an Hg CEMS.

B. Pursuant to Construction Permit #01100065, the hydrogen fluorides emissions from each boiler shall not exceed 0.00026 lb/million Btu. This limit shall apply as a 3-hour block average. This limit shall not apply during startup, shutdown and malfunction. [T1-BACT]

C. Pursuant to Construction Permit #01100065: [T1]

I. The boilers shall each comply with the requirements for control of hydrogen chloride emissions established by USEPA pursuant to the Clean Air Act, once applicable regulations are adopted by USEPA.

II. If such standards are not adopted by USEPA or are not effective, such that the boilers must be subject to a case-by-case determination of Maximum Achievable Control Technology (MACT) pursuant to Section 112(g) of the Clean Air Act, a boiler shall comply with one of the following requirements with respect to emissions of hydrogen chloride:

1. An emission rate of 0.0032 lb/million Btu, 3 hour average; or

2. A removal efficiency of 98 percent, 3-hour average, comparing the emissions and the chlorine content of the fuel supply, expressed as equivalent hydrogen chloride.

D. Pursuant to Construction Permit #01100065, the boilers shall not exceed the following: [T1]

| Pollutant | Individual Boiler | | Combined Tons/Year[a] |
|---|---|---|---|
| | Lb/Hour, 3-Hour Average | Tons/Year[a] | |
| Fluorides[b] | 2.0 | 8.75 | 17.5 |
| Lead[c] | 0.0678 | 0.295 | 0.594 |
| Mercury | 0.016 [d] | 0.07 | 0.14 |
| Beryllium | 0.0085 [d] | 0.0371 | 0.0742 |
| Hydrogen Chloride | 24.4 [d] | 107.0 | 214.0 |

Notes:

a These limitations address all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction.

b The limit for fluorides is expressed in terms of hydrogen fluorides.

c The limit for lead is expressed in terms of elemental lead. As this limit is applicable during startup, shutdown and malfunction, compliance shall be determined by engineering analysis and calculations.

d This limit does not apply during periods of startup, shutdown and malfunction.

E. Pursuant to Section 39.5(7)(a) of the Act, emissions from each boiler shall not exceed the following limits. [T1N]

| **Pollutant** | **Tons/Year[a]** |
|---|---|
| Fluorides[b] | 0.92 |
| Lead[c] | 0.149 |
| Mercury | 0.031 |
| Beryllium | 0.00371 |
| Hydrogen Chloride | 11.75 |

Notes:

a These limitations address all emissions from the boiler(s), including emissions that occur during periods of startup, shutdown and malfunction.

b The limit for fluorides is expressed in terms of hydrogen fluorides.

c The limit for lead is expressed in terms of elemental lead. As this limit is applicable during startup, shutdown and malfunction, compliance shall be determined by engineering analysis and calculations.

ii. Compliance Method (HAP Requirements)

A. Pursuant to 40 CFR 63.10000(a), the Permittee must be in compliance with the emission limits in 40 CFR 63 Subpart UUUUU. These limits apply at all times except during periods of startup and shutdown.

B. Pursuant to Construction Permit #01100065, the Permittee shall determine compliance with the hydrogen fluorides emission limit of 0.00026 lb/million Btu from each boiler by emission testing and equipment operation. [T1]

C. Pursuant to Construction Permit #01100065, compliance with the hydrogen chloride emission rate of 0.0032 lb/millions Btu or the removal efficiency of 98 percent shall be demonstrated by periodic testing and proper operation of a boiler consistent with other applicable requirements that relate to control of $SO_2$ emissions. Notwithstanding the above, periods of startup, shutdown and malfunction shall be addressed by the Startup, Shutdown and Malfunction Plan as provided by 40 CFR Part 63, Subpart A. [T1]

Monitoring

D. Pursuant to 40 CFR 63.10000(c)(1)(vi), the Permittee must demonstrate continuous compliance through use of a Hg CEMS in accordance with 40 CFR 63 Subpart UUUUU Appendix A.

E. Pursuant to 40 CFR 63.10007(b), the Permittee must conduct each performance test (including traditional 3-run stack tests and 30-boiler operating day tests based on CEMS data (or sorbent trap monitoring system data)) according to the requirements in 40 CFR 63 Subpart UUUUU Table 5.

I. Pursuant to 40 CFR 63 Subpart UUUUU Table 5 Item 4, to conduct a performance test for Mercury (Hg) using Hg CEMS the Permittee shall:

1. Operate and maintain the CEMS using 40 CFR Part 63 Subpart UUUUU Sections 3.2.1 and 5.1

2. Convert hourly emissions concentrations to 30 boiler operating day rolling average lb/TBtu or lb/GWh emission rates using 40 CFR 63 Subpart UUUUU Appendix A Section 6.

F. Pursuant to 40 CFR 63.10007(e), to use the results of performance testing to determine compliance with the applicable emission limits in 40 CFR 63 Subpart UUUUU Table 1 or 2, proceed as follows:

I. Pursuant to 40 CFR 63.10007(e)(2)(v), if the limits are expressed in lb/MMBtu or lb/TBtu, the Permittee must use the F-factor methodology and equations in 40 CFR 60 Appendix A-7 USEPA Method 19 Sections 12.2 and 12.3. In cases where an appropriate F-factor is not listed in USEPA Method 19 Table 19-2, the Permittee may use F-factors from 40 CFR 75 Appendix F Section 3.3.5 Table 1, or F-factors derived using the procedures in 40 CFR Part 75 Section 3.3.6. Multiply Hg concentrations (µg/scm) by 6.24 × 10−11 to convert the pollutant concentrations measured during the initial performance tests to units of lb/scf, for use in the applicable USEPA Method 19 equations.

II. Pursuant to 40 CFR 63.10007(e)(3), to determine compliance with emission limits expressed in lb/MWh or lb/GWh, the Permittee must first calculate the pollutant mass emission rate during the performance test, in units of lb/h. For Hg, use 40 CFR 63 Subpart UUUUU Appendix A Equation A-2 or A-3 (as applicable). This calculation requires stack gas volumetric flow rate (scfh) and (in some cases) moisture content data (see 40 CFR 63.10005(h)(3) and 63.10010). Then, if the applicable emission limit is in units of lb/GWh, use 40 CFR 63 Subpart UUUUU Appendix A Equation A-4 to calculate the pollutant emission rate in lb/GWh. In this calculation, define $(M)_h$ as the calculated pollutant mass emission rate for the performance test (lb/h), and define $(MW)_h$ as the average electrical load during the performance test (megawatts). If the applicable emission limit is in lb/MWh rather than lb/GWh, omit the 103 term from Equation A-4 to determine the pollutant emission rate in lb/MWh.

G. Pursuant to 40 CFR 63.10010(g), the Permittee must install, certify, operate, maintain and quality-assure the data from the Hg CEMS monitoring system in accordance with 40 CFR 63 Appendix A. The Permittee must calculate and record a 30- (or, if alternate emissions averaging is used, 90-) boiler operating day rolling average Hg emission rate, in units of the standard, updated after each new boiler operating day. Each 30- (or, if alternate emissions averaging is used, 90-) boiler operating day rolling average emission rate, calculated according to 40 CFR 63 Subpart UUUUU Appendix A Section 6.2, is the average of all of the valid hourly Hg emission rates in the preceding 30- (or, if alternate emissions averaging is used, a 90-) boiler operating days. 40 CFR 63 Subpart UUUUU Appendix A Section 7.1.4.3 explains how to reduce sorbent trap monitoring system data to an hourly basis.

Testing

H. Pursuant to Construction Permit #01100065, whenever PM testing for a boiler is performed as required by Condition 4.1.2(b)(ii)(P)(III), testing for emissions of mercury and hydrogen chloride shall also be performed. [T1]

I. I. Pursuant to Construction Permit #01100065, USEPA Method 23 shall be used for testing of dioxin/furan, unless other methods adopted by or being developed by USEPA are specified or approved by the Illinois EPA. [T1]

II. Pursuant to Construction Permit #01100065, USEPA Method 26 shall be used for testing of hydrogen chloride and hydrogen fluoride, unless other methods adopted by or being developed by USEPA are specified or approved by the Illinois EPA. [T1]

III. Pursuant to Construction Permit #01100065, USEPA Method 29 shall be used for testing of mercury, arsenic, beryllium, cadmium, chromium, lead, manganese, and nickel, unless other methods adopted by or being developed by USEPA are specified or approved by the Illinois EPA. [T1]

IV. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall test the coal-fired boilers Units 1 and 2 for dioxin/furan, hydrogen fluoride, arsenic, beryllium, cadmium, chromium, lead, manganese, and nickel emissions using Methods 23, 26, and 29, as applicable, prior to TBD.

V. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall test the coal-fired boilers Units 1 and 2 for dioxin/furan, hydrogen fluoride, arsenic, beryllium, cadmium, chromium, lead, manganese, and nickel emissions using Methods 23, 26, and 29, as applicable, every 5 years.

J. Pursuant to Construction Permit #01100065, the Permittee shall perform emission tests as requested by the Illinois EPA for a boiler within 45 days of a written request by the Illinois EPA or such later date agreed to by the Illinois EPA. [T1]

K. Pursuant to Construction Permit #01100065, emission testing is required to show compliance on a 3-hour average basis for the hourly hydrogen chloride, hydrogen fluorides, lead, mercury, and beryllium limitations. When compliance is determined from such testing, the results of such testing shall be compiled as the average of the individual test runs to determine compliance, as provided by 35 IAC Part 283. [T1]

Note: See Sections 2.3 and 7.1 for additional testing requirements.

Recordkeeping

L. Pursuant to 40 CFR 63.10032(a), for Hg, the Permittee must keep records according to 40 CFR 63.10032(a)(1) and (2). The Permittee must keep the records required under 40 CFR 63 Subpart UUUUU Appendix A and/or Appendix B and/or Appendix C and/or Appendix D. If electing to conduct periodic (e.g., quarterly or annual) performance stack tests, then, for each test, the Permittee must keep records of the applicable data elements under 40 CFR 63.7(g). The Permittee must also keep records of all data elements and other information in 40 CFR 63 Subpart UUUUU Appendix E that apply to the Permittee's compliance strategy.

I. Pursuant to 40 CFR 63.10032(a)(1), in accordance with 40 CFR 63.10(b)(2)(xiv), a copy of each notification or report submitted to comply with 40 CFR 63 Subpart UUUUU. The Permittee must also keep records of all supporting documentation for the initial Notifications of Compliance Status, semiannual compliance reports, or quarterly compliance reports submitted.

II. Pursuant to 40 CFR 63.10032(a)(2), records of performance stack tests, fuel analyses, or other compliance demonstrations and performance evaluations, as required in 40 CFR 63.10(b)(2)(viii).

M. Pursuant to Construction Permit #01100065, for each boiler, the Permittee shall maintain records of emissions of mercury, hydrogen chloride, beryllium, lead, and hydrogen fluorides from each boiler, based on fuel usage and other operating data for each boiler and appropriate emission factors, with supporting documentation. [T1]

I. Pursuant to Section 39.5(7)(b) of the Act, these records shall include hourly (3-hour block average), monthly (tons/month), and annual (tons/year) emissions.

N. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of all stack test results performed on the boilers.

**i. i. <u>Operational and Production Requirements</u>**

A. Pursuant to 40 CFR 63.9991(a), the Permittee must meet the requirements in 40 CFR 63.69991(a)(1) and (2). The Permittee must meet these requirements at all times.

I. Pursuant to 40 CFR 63.9991(a)(1), the Permittee must meet each applicable emission limit and work practice standard in 40 CFR 63 Subpart UUUUU Table 1 through 3, for each EGU, except as provided under 40 CFR 63.10009.

1. Pursuant to 40 CFR 63 Subpart UUUUU Table 3 Item 1, the Permittee must conduct a tune-up of the EGU burner and combustion controls at least each 36 calendar months, or each 48 calendar months if neural network combustion optimization software is employed, as specified in 40 CFR 63.10021(e).

B. Pursuant to 40 CFR 63.10000(e), as part of demonstrating continuous compliance, the Permittee must perform periodic tune-ups of the EGUs, according to 40 CFR 63.10021(e).

C. Pursuant to 40 CFR 63.100006(i), the Permittee must conduct a performance tune-up according to 40 CFR 63.10021(e).

I. Pursuant to 40 CFR 63.100006(i)(1), each performance tune-up specified in 40 CFR 63.10021(e) must be no more than 36 calendar months after the previous performance tune-up.

D. Pursuant to 40 CFR 63.10021(e), conduct periodic performance tune-ups of the EGU(s), as specified in 40 CFR 63. 10021(e)(1) through (9). The Permittee must perform an inspection of the burner at least once every 36 calendar months. If the EGU is offline when a deadline to perform the tune-up passes, the Permittee shall perform the tune-up work practice requirements within 30 days after the re-start of the affected unit.

I. Pursuant to 40 CFR 63.10021(e)(1), as applicable, inspect the burner and combustion controls, and clean or replace any components of the burner or combustion controls as necessary upon initiation of the work practice program and at least once every required inspection period. Repair of a burner or combustion control component requiring special order parts may be scheduled as follows:

1. Pursuant to 40 CFR 63.10021(e)(1)(i), burner or combustion control component parts needing replacement that affect the ability to optimize $NO_X$ and CO must be installed within 3 calendar months after the burner inspection.

2. Pursuant to 40 CFR 63.10021(e)(1)(ii), burner or combustion control component parts that do not affect the ability to optimize $NO_X$ and CO may be installed on a schedule determined by the operator.

II. Pursuant to 40 CFR 63.10021(e)(2), as applicable, inspect the flame pattern and make any adjustments to the burner or combustion controls necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available, or in accordance with best combustion engineering practice for that burner type.

III. Pursuant to 40 CFR 63.10021(e)(3), as applicable, observe the damper operations as a function of mill and/or cyclone loadings, cyclone and pulverizer coal feeder loadings, or other pulverizer and coal mill performance parameters, making adjustments and effecting repair to dampers, controls, mills, pulverizers, cyclones, and sensors.

IV. Pursuant to 40 CFR 63.10021(e)(4), as applicable, evaluate windbox pressures and air proportions, making adjustments and effecting repair to dampers, actuators, controls, and sensors.

V. Pursuant to 40 CFR 63.10021(e)(5), inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly. Such inspection may include calibrating excess $O_2$ probes and/or sensors, adjusting overfire air systems, changing software parameters, and calibrating associated actuators and dampers to ensure that the systems are operated as designed. Any component out of calibration, in or near failure, or in a state that is likely to negate combustion optimization efforts prior to the next tune-up, should be corrected or repaired as necessary.

VI. Pursuant to 40 CFR 63.10021(e)(6), optimize combustion to minimize generation of CO and $NO_X$. This optimization should be consistent with the manufacturer's specifications, if available, or best combustion engineering practice for the applicable burner type. $NO_X$ optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, adjusting combustion zone temperature profiles, and add-on controls such as SCR and SNCR; CO optimization includes burners, overfire air controls, concentric firing system improvements, neural network or combustion efficiency software, control systems calibrations, and adjusting combustion zone temperature profiles.

VII. Pursuant to 40 CFR 63.10021(e)(7), while operating at full load or the predominantly operated load, measure the concentration in the effluent stream of CO and $NO_X$ in ppm, by volume, and oxygen in volume percent, before and after the tune-up adjustments are

made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). The Permittee may use portable CO, $NO_X$ and $O_2$ monitors for this measurement.

E. Pursuant to 40 CFR 63.10000(f), the Permittee is subject to the requirements of 40 CFR 63, Subpart UUUUU for at least 6 months following the last date the Permittee met the definition of an EGU subject to 40 CFR 63, Subpart UUUUU (e.g., 6 months after a cogeneration unit provided more than one third of its potential electrical output capacity and more than 25 megawatts electrical output to any power distributions system for sale). The Permittee may opt to remain subject to the provisions of 40 CFR 63, Subpart UUUUU beyond 6 months after the last date the unit met the definition of an EGU subject to 40 CFR 63 Subpart UUUUU.

F. Pursuant to 40 CFR 63.10000(g), if a unit no longer meets the definition of an EGU subject 40 CFR 63, Subpart UUUUU the Permittee must be in compliance with any newly applicable standards on the date the unit is no longer subject to 40 CFR 63, Subpart UUUUU. The date the unit is no longer subject to 40 CFR 63, Subpart UUUUU is a date selected by the Permittee, that must be at least 6 months from the date that the unit last met the definition of an EGU subject to 40 CFR 63, Subpart UUUUU or the date the Permittee began combusting solid waste, consistent with 40 CFR 63.9983(d). The unit must remain in compliance with 40 CFR 63 Subpart UUUUU until the date the Permittee selected to cease complying with 40 CFR 63 Subpart UUUUU or the date the Permittee begin combusting solid waste, whichever is earlier.

G. Pursuant to 40 CFR 63.10000(i)(1), if the Permittee ceases to operate in a manner that causes the unit to meet the definition of an EGU subject to 40 CFR 63 Subpart UUUUU, the Permittee must be in compliance with any newly applicable CAA Section 112 or 129 standards on the date the Permittee selected consistent with 40 CFR 63.10000(g) and (n).

H. Pursuant to 40 CFR 63.10000(j), all air pollution control equipment necessary for compliance with any newly applicable emissions limits which apply as a result of the cessation or commencement or recommencement of operations that cause an EGU to meet the definition of an EGU subject to 40 CFR 63 Subpart UUUUU must be installed and operational as of the date the source ceases to be or becomes subject to 40 CFR 63 Subpart UUUUU.

I. Pursuant to Construction Permit #01100065, the power plant shall be operated as a mine-mouth plant. [T1]

J. Pursuant to Construction Permit #01100065, each boiler shall be operated and maintained with the following features to control emissions: [T1-BACT]

I. Good combustion practices.

II. Low-$NO_X$ burners.

III. Selective catalytic reduction (SCR).

IV. Electrostatic precipitator (ESP).

V. Wet flue gas desulfurization (WFGD).

VI. Wet electrostatic precipitator (WESP).

K. Pursuant to Construction Permit #01100065, the Permittee shall handle the fuel for the boilers in accordance with a written Fuel Management Plan that shall be designed to provide the boilers with a consistent fuel supply that meets relevant criteria needed for proper operation of the boilers and their control systems. [T1]

L. Pursuant to Construction Permit #01100065, the Permittee shall review its operating and maintenance procedures and its Fuel Management Plan for the boilers as required above on a regular basis and revise them if needed consistent with good air pollution control practices based on actual operating experience and equipment performance. This review shall occur at least annually if not otherwise initiated by occurrence of a startup, shakedown, or malfunction event that is not adequately addressed by the existing plans or a specific request by the Illinois EPA for such review. [T1]

L. Pursuant to Construction Permit #01100065, as a mine-mouth facility, the plant shall use coal in the two coal-fired boilers delivered by conveyor belt directly from the mining facility or facilities, except during extended interruptions in the mine-mouth coal supply. [T1]

N. Pursuant to Construction Permit #01100065, the Permittee is authorized to use coal from off-site in the boilers during an extended interruption in the mine-mouth coal supply, the plant may use washed Illinois No. 5 and No. 6 coal from off-site, as further provided below: [T1]

I. For an incident to be considered an extended interruption in the coal supply to the boilers, the interruption must be caused by events or circumstances that could not have been reasonably prevented by the Permittee, its contractors, or any entity controlled by the Permittee, and the interruption in the coal supply must be of longer duration than the interruptions that routinely occur in the operation of mining facilities (which the Permittee can address by maintaining a reserve supply of coal at the plant).

II. To continue to qualify for the exception provided for extended interruptions in the mine-mouth coal supply, the Permittee must be undertaking a program to restore the coal supply that has experienced the interruption, in a reasonable period of time that is consistent with the nature of the efforts needed to restore such coal supply. In the event that only a partial interruption occurs or the operation of the mining facility is partially restored, the exception for an extended interruption in the coal supply only applies to the portion of the coal supply that is affected.

O. Pursuant to Construction Permit #08010051, the Permittee shall install, operate and maintain instrumentation on each lime injection system to measure and record the rate of lime injection on an hourly average basis. [T1]

ii. <u>Compliance Method (Operational and Production Requirements)</u>

A. Pursuant to 40 CFR 63.10000(a), the Permittee must be in compliance with the operating limits in 40 CFR 63, Subpart UUUUU. These limits apply at all times except during periods of startup and shutdown.

B. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall implement and maintain the power plant preventive maintenance work order required by CCA A-2021-0051 to address coal conditioning and mercury emission sampling in the event of an extended outage. This work order seeks to ensure continued compliance with the applicable mercury emission limits and proper

operation consistent with good air pollution control practices for minimizing emissions of Unit 1 Coal Boiler in accordance with 40 CFR 63 Subpart UUUUU.

Monitoring

C. Pursuant to 40 CFR 60.49Da(d), the Permittee shall install, calibrate, maintain, and operate a CEMS, and record the output of the system, for measuring the $O_2$ or carbon dioxide ($CO_2$) content of the flue gases at each location where $SO_2$ or $NO_X$ emissions are monitored. For the lb/MMBtu $SO_2$ emission limit under 40 CFR 60.43Da, that CEMS may be used together with the 40 CFR Part 75 $SO_2$ concentration monitoring system described in 40 CFR 60.49Da(b), to determine the $SO_2$ emission rate in lb/MMBtu. $SO_2$ data used to meet the requirements of 40 CFR 60.51Da shall not include substitute data values derived from the missing data procedures in 40 CFR Part 75, nor shall the data have been bias adjusted according to the procedures of 40 CFR Part 75.

D. Pursuant to 40 CFR 60.49Da(e), the Permittee shall operate and record data from the CEMS under 40 CFR 60.49Da(b), (c), and (d) during all periods of operation including periods of startup, shutdown, and malfunction, except for CEMS breakdowns, repairs, calibration checks, and zero and span adjustments.

E. Pursuant to 40 CFR 60.49Da(f)(2), the Permittee shall obtain emission data for at least 90 percent of all operating hours for each 30 successive boiler operating days. If this minimum data requirement cannot be met with a CEMS, the Permittee shall supplement emission data with other monitoring systems approved by the Illinois EPA or the reference methods and procedures as described in 40 CFR 60.49Da(h).

F. Pursuant to 40 CFR 60.49Da(h), when it becomes necessary to supplement CEMS data to meet the minimum data requirements in 40 CFR 60.49Da(f), the Permittee shall use the reference methods and procedures as specified below. Acceptable alternative methods and procedures are given in 40 CFR 60.49Da(j).

   I. Pursuant to 40 CFR 60.49Da(h)(3), the emission rate correction factor, integrated bag sampling and analysis procedure of USEPA Method 3B shall be used to determine the $O_2$ or $CO_2$ concentration at the same location as the $O_2$ or $CO_2$ monitor. Samples shall be taken for at least 30 minutes in each hour. Each sample represents a 1-hour average.

   II. Pursuant to 40 CFR 60.49Da(h)(4), the procedures in USEPA Method 19 shall be used to compute each 1-hour average concentration in ng/J (lb/MMBtu) heat input.

G. Pursuant to 40 CFR 60.49Da(i), the Permittee shall use methods and procedures in 40 CFR 60.49Da(i) to conduct monitoring system performance evaluations under 40 CFR 60.13(c) and calibration checks under 40 CFR 60.13(d). Acceptable alternative methods and procedures are given in 40 CFR 60.49Da(j).

   I. Pursuant to 40 CFR 60.49Da(i)(1), USEPA Method 3B shall be used to determine $O_2$ concentrations.

H. Pursuant to 40 CFR 60.49Da(j), the Permittee may use the following as alternatives to the reference methods and procedures specified in 40 CFR 60.49Da.

I. Pursuant to 40 CFR 60.49Da(j)(3), for USEPA Method 3, USEPA Method 3A or 3B may be used if the sampling time is 1 hour.

II. Pursuant to 40 CFR 60.49Da(j)(4), for USEPA Method 3B, USEPA Method 3A may be used.

I. Pursuant to 40 CFR 60.49Da(k), the procedures specified in 40 CFR 60.49Da(k)(1) through (3) shall be used to determine gross energy output for sources demonstrating compliance with an output-based standard.

I. Pursuant to 40 CFR 60.49Da(k)(1), the Permittee shall install, calibrate, maintain, and operate a wattmeter; measure gross electrical output in MWh on a continuous basis; and record the output of the monitor.

J. Pursuant to 40 CFR 60.49Da(m), as an alternative to 40 CFR 60.49Da(l), data from a continuous flow monitoring system certified according to the requirements of 40 CFR 75.20(c) and 40 CFR Part 75 Appendix A, and continuing to meet the applicable quality control and quality assurance requirements of 40 CFR 75.21 and 40 CFR Part 75 Appendix B, shall be used. Flow rate data reported to meet the requirements of 40 CFR 60.51Da shall not include substitute data values derived from the missing data procedures in 40 CFR Part 75 Subpart D, nor shall the data have been bias adjusted according to the procedures of 40 CFR Part 75.

K. I. Pursuant to 40 CFR 63.10000(d)(2), the site-specific monitoring plan shall include the information specified in 40 CFR 63.10000(d)(5)(i) through (d)(5)(vii). Alternatively, the requirements of 40 CFR 63.10000(d)(5)(i) through (d)(5)(vii) are considered to be met for a particular CMS or sorbent trap monitoring system if:

1. Pursuant to 40 CFR 63.10000(d)(2)(i), the CMS or sorbent trap monitoring system is installed, certified, maintained, operated, and quality-assured either according to 40 CFR Part 75, or 40 CFR Part 63 Subpart UUUUU Appendix A or B; and

2. Pursuant to 40 CFR 63.10000(d)(2)(ii), the recordkeeping and reporting requirements of 40 CFR Part 75, or 40 CFR Part 63 Subpart UUUUU Appendix A or B, that pertain to the CMS are met.

II. Pursuant to 40 CFR 63.10000(d)(4), the Permittee must operate and maintain CMS according to their site-specific monitoring plan.

III. Pursuant to 40 CFR 63.10000(d)(5), the provisions of the site-specific monitoring plan must address the following items:

1. Pursuant to 40 CFR 63.10000(d)(5)(i), installation of the CMS or sorbent trap monitoring system sampling probe or other interface at a measurement location relative to each coal boiler such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device). See 40 CFR 63.10010(a) for further details. For PM CPMS installations (which with the exception of IGCC units, are only applicable before July 6, 2027), follow the procedures in 40 CFR 63.10010(h).

2. Pursuant to 40 CFR 63.10000(d)(5)(ii), performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems.

3. Pursuant to 40 CFR 63.10000(d)(5)(iii), schedule for conducting initial and periodic performance evaluations.

4. Pursuant to 40 CFR 63.10000(d)(5)(iv), performance evaluation procedures and acceptance criteria (e.g., calibrations), including the quality control program in accordance with the general requirements of 40 CFR 63.8(d).

5. Pursuant to 40 CFR 63.10000(d)(5)(v), on-going operation and maintenance procedures, in accordance with the general requirements of 40 CFR 63.8(c)(1)(ii), (c)(3), and (c)(4)(ii).

6. Pursuant to 40 CFR 63.10000(d)(5)(vi), conditions that define a CMS that is out of control consistent with 40 CFR 63.8(c)(7)(i) where appropriate, and for responding to out of control periods consistent with 40 CFR 63.8(c)(7)(ii) and (c)(8).

7. Pursuant to 40 CFR 63.10000(d)(5)(vii), on-going recordkeeping and reporting procedures, in accordance with the general requirements of 40 CFR 63.10(c), (e)(1), and (e)(2)(i), or as specifically required under this subpart.

L. Pursuant to 40 CFR 63.10000(k), all monitoring systems necessary for compliance with any newly applicable monitoring requirements which apply as a result of the cessation or commencement or recommencement of operations that cause an EGU to meet the definition of an EGU subject to 40 CFR 63 Subpart UUUUU must be installed and operational as of the date the source ceases to be or becomes subject to 40 CFR 63 Subpart UUUUU. All calibration and drift checks must be performed as of the date the source ceases to be or becomes subject to 40 CFR 63 Subpart UUUUU. The Permittee must also comply with provisions of 40 CFR 63.10010, 63.10020, and 63.10021 of 40 CFR 63 Subpart UUUUU. Relative accuracy tests must be performed as of the performance test deadline for PM CEMS, if applicable. Relative accuracy testing for other CEMS need not be repeated if that testing was previously performed consistent with CAA Section 112 monitoring requirements or monitoring requirements under 40 CFR 63 Subpart UUUUU.

M. Pursuant to 40 CFR 63.10007(a)(1), the Permittee must collect quality-assured CEMS data for all unit operating conditions, including startup and shutdown (see 40 CFR 63.10011(g) and 40 CFR 63 Subpart UUUUU Table 3), except as otherwise provided in 40 CFR 63.10020(b). Emission rates determined during startup periods and shutdown periods (as defined in 40 CFR 63.10042) are not to be included in the compliance determinations, except as otherwise provided in 40 CFR 63.10000(c)(1)(vi)(B) and 63.10005(a)(2)(iii).

N. Pursuant to 40 CFR 63.10007(b), the Permittee must conduct each performance test (including traditional 3-run stack tests, 30-boiler operating day tests based on CEMS data (or sorbent trap monitoring system data), and 30-boiler operating day Hg emission tests for LEE qualification) according to the requirements in 40 CFR 63 Subpart UUUUU, Table 5.

I. Pursuant to 40 CFR 63 Subpart UUUUU, Table 5 Items 1, 4, and 5, the Permittee must operate and maintain the diluent gas, flow rate, and or moisture monitoring systems using 40 CFR Part 75 and 40 CFR 63.10010(a), (b), (c), and (d).

O. Pursuant to 40 CFR 63.10010(a)(1), the Permittee shall either install the required CEMS, PM CPMS, and sorbent trap monitoring systems in the stack or at a location in the ductwork downstream of all emissions control devices, where the pollutant and diluents concentrations are representative of the emissions that exit to the atmosphere.

P. Pursuant to 40 CFR 63.10010(b), because the boilers use oxygen ($O_2$) CEMS to convert measured pollutant concentrations to the units of the applicable emissions limit, the $O_2$ concentrations shall be monitored at a location that represents emissions to the atmosphere, i.e., at the outlet of the EGU, downstream of all emission control devices. The Permittee must install, certify, maintain, and operate the CEMS according to 40 CFR Part 75. The Permittee must use only quality-assured $O_2$ data in the emissions calculations; the Permittee may not use 40 CFR Part 75 substitute data values.

Q. Pursuant to 40 CFR 63.10010(c), the Permittee must install, certify, operate, and maintain the monitoring system and conduct on-going quality-assurance testing of the system according to 40 CFR Part 75. The Permittee must only use unadjusted, quality-assured flow rate data in the emissions calculations. The Permittee may not apply bias adjustment factors to the flow rate data and may not use substitute flow rate data in the calculations.

R. Pursuant to 40 CFR 63.10010(d), the Permittee must install, certify, operate, and maintain a moisture monitoring system in accordance with 40 CFR Part 75. Alternatively, the Permittee may use appropriate fuel-specific default moisture values from 40 CFR 75.11(b) to estimate the moisture content of the stack gas or the Permittee may petition the Illinois EPA under 40 CFR 75.66 for use of a default moisture value for non-coal-fired units. If the Permittee installs and operates a moisture monitoring system, the Permittee may not use substitute moisture data in the emissions calculations.

S. Pursuant to 40 CFR 63.10020(a), the Permittee must monitor and collect data according to 40 CFR 63.10020 and the site-specific monitoring plan required by 40 CFR 63.10000(d).

T. Pursuant to 40 CFR 63.10020(b), the Permittee must operate the monitoring system and collect data at all required intervals at all times that the EGU is operating, except for required monitoring system quality assurance or quality control activities, including, as applicable, calibration checks and required zero and span adjustments, and any scheduled maintenance as defined in the site-specific monitoring plan. The Permittee is required to affect monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

U. Pursuant to 40 CFR 63.10020(c), the Permittee may not use data recorded during EGU startup or shutdown in calculations used to report emissions, except as otherwise provided in 40 CFR 63.10000(c)(1)(vi)(B) and 63.10005(a)(2)(iii). In addition, data recorded during monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, or required monitoring system quality assurance or control activities may not be used in calculations used to report emissions or operating levels. The Permittee must use all of the quality-assured data collected during all other periods in assessing the operation of the control device and associated control system.

V. Pursuant to 40 CFR 63.10020(d), periods of monitoring system malfunctions or monitoring system out-of-control periods, repairs associated with monitoring system malfunctions or monitoring system out-of-control periods, and required monitoring system quality assurance or quality control activities excluding zero and span checks must be reported as time the monitor was inoperative (downtime) under 40 CFR 63.10(c). Failure to collect required quality-assured data during monitoring system malfunctions, monitoring system out-of-control periods, or repairs associated with monitoring system malfunctions or monitoring system out-of-control periods is a deviation from the monitoring requirements.

W. Pursuant to 40 CFR 63.10021(a), the Permittee must demonstrate continuous compliance with each applicable emissions limit, operating limit, and work practice standard in 40 CFR 63 Subpart UUUUU, Tables 1 through 4, according to the monitoring specified in 40 CFR 63 Subpart UUUUU, Tables 6 and 7 and 40 CFR 63.10021(b) through (g).

I. Pursuant to 40 CFR 63 Subpart UUUUU, Table 7, Item 1, the Permittee must demonstrate continuous compliance of the PM, $SO_2$, and Hg CEMS by calculating the 30- (or 90-) boiler operating day rolling arithmetic average emissions rate in units of the applicable emissions standard basis at the end of each boiler operating day using all of the quality assured hourly average CEMS or sorbent trap data for the previous 30- (or 90-) boiler operating days, excluding data recorded during periods of startup or shutdown.

II. Pursuant to 40 CFR 63 Subpart UUUUU, Table 7, Item 4, the Permittee must demonstrate continuous compliance of the quarterly performance testing by calculating the results of the testing in units of the applicable emission standard.

III. Pursuant to 40 CFR 63 Subpart UUUUU, Table 7, Item 5, the Permittee must demonstrate continuous compliance of the periodic performance tune-ups by conducting periodic performance tune-ups of the EGUs, as specified in 40 CFR 63.10021(e).

IV. Pursuant to 40 CFR 63 Subpart UUUUU, Table 7, Item 4, the Permittee must demonstrate continuous compliance of the work practice standards during startup by operating in accordance with 40 CFR 63, Subpart UUUUU Table 3.

V. Pursuant to 40 CFR 63 Subpart UUUUU, Table 7, Item 4, the Permittee must demonstrate continuous compliance of the work practice standards during shutdown by operating in accordance with 40 CFR 63, Subpart UUUUU, Table 3.

X. Pursuant to 40 CFR 63.10021(b), except as otherwise provided in 40 CFR 63.10020(c), because the Permittee uses a CEMS to measure $SO_2$, PM, and Hg emissions, the Permittee must demonstrate continuous compliance by using all quality-assured hourly data recorded by the CEMS and the other required monitoring systems (e.g., flow rate, $CO_2$, $O_2$, or moisture systems) to calculate the arithmetic average emissions rate in units of the standard on a continuous 30-boiler operating day rolling average basis, updated at the end of each new boiler operating day. The Permittee shall use Equation 8 to determine the 30-boiler operating day rolling average.

$$Boiler\ operating\ day\ average = \frac{\sum_{i=1}^{n} Her_i}{n} \quad (Eq.\ 8)$$

Where:

$Her_i$ is the hourly emissions rate for hour i and n is the number of hourly emissions rate values collected over 30-boiler operating days.

Y. Pursuant to Construction Permit #01100065, the Permittee shall certify, operate, calibrate, and maintain continuous monitoring systems on each boiler for opacity, emissions of $SO_2$, $NO_X$, CO, and either oxygen or carbon dioxide in the exhaust. The opacity monitor shall be located before the wet control equipment as needed to prevent interference from moisture in the ductwork. The Permittee shall operate and maintain the continuous emissions monitoring systems according to the approved site-specific monitoring plan(s). [T1]

Z. Pursuant to Construction Permit #01100065: [T1]

I. The Permittee shall evaluate, operate, and maintain meters to measure and record consumption of natural gas by each boiler.

II. The Permittee shall operate and maintain systems to measure key operating parameters of the control system for each boiler, including:

1. Reagent injection rate for the SCR unit;

2. Voltages, currents and sparking rates for the ESP;

3. Reagent usage rate for the WFGD; and

4. Voltages, currents, sparking rates and water flow for the WESP.

Testing

AA. Pursuant to Construction Permit #01100065: [T1]

I. The Permittee shall sample and analyze the sulfur and heat content of the coal supplied to the boilers in accordance with USEPA Reference Method 19 (40 CFR 60, Appendix A, Method 19).

II. The Permittee shall analyze samples of all coal supplies that are components of the coal supply to the boilers and the coal supply, itself, for mercury and other metals and chlorine content, as follows:

1. Analysis shall be conducted in accordance with USEPA Reference Methods or other method approved by USEPA.

2. Analysis of the fuel supply to the boiler, itself, shall be conducted in conjunction with performance testing of a boiler.

3. Analysis of representative samples of coal shall be conducted in conjunction with acceptance of coal from off-site.

4. Analysis of representative samples of coal shall be conducted at least every two years.

III. The Permittee shall use the following methods and procedures for testing, unless other methods adopted by or being developed by USEPA are specified or approved by the Illinois EPA.

1. USEPA Method 1 shall be used for the Location of Sample Points.

2. USEPA Method 2 shall be used for Gas Flow and Velocity.

3. USEPA Method 3 or 3A shall be used for Flue Gas Weight.

4. USEPA Method 4 shall be used for Moisture.

Note: See Sections 2.3 and 7.1 for additional testing requirements.

Recordkeeping

BB. Pursuant to 40 CFR 63.10032(b), for each CEMS and CPMS, the Permittee must keep records according to 40 CFR 63.10032(b)(1) through (4).

I. Pursuant to 40 CFR 63.10032(b)(1), records described in 40 CFR 63.10(b)(2)(vi) through (xi).

II. Pursuant to 40 CFR 63.10032(b)(2), previous (i.e., superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).

III. Pursuant to 40 CFR 63.10032(b)(3), request for alternatives to relative accuracy test for CEMS as required in 40 CFR 63.8(f)(6)(i).

IV. Pursuant to 40 CFR 63.10032(b)(4), records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

CC. Pursuant to 40 CFR 63.10032(c), the Permittee must keep records required in 40 CFR 63, Subpart UUUUU Table 7 including records of all monitoring data and calculated averages for applicable PM CPMS operating limits to show continuous compliance with each emission limit and operating limit.

DD. Pursuant to 40 CFR 63.10032(d)(1), the Permittee must keep records of monthly fuel use by each EGU, including the type(s) of fuel and amount(s) used.

EE. Pursuant to 40 CFR 63.10032(g), the Permittee must keep records of the occurrence and duration of each malfunction of an operation (i.e., process equipment) or the air pollution control and monitoring equipment.

FF. Pursuant to 40 CFR 63.10032(h), the Permittee must keep records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR 63.10000(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

GG. Pursuant to 40 CFR 63.10033(a), records must be in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1).

HH. Pursuant to 40 CFR 63.10033(b), as specified in 40 CFR 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

II. Pursuant to 40 CFR 63.10033(c), the Permittee must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The Permittee can keep the records off site for the remaining 3 years.

JJ. Pursuant to Construction Permit #01100065, the Permittee shall maintain records of the: [T1]

I. Measurements of the key operating parameters of the control system for each boiler.

II. Maintenance and operational activity associated with the systems that measure key operating parameters of the control system for each boiler.

KK. Pursuant to Construction Permit #01100065, the Permittee shall maintain the following records with respect to operation and maintenance of each boiler and associated control equipment: [T1]

I. An operating log for the boiler that at a minimum shall address:

1. Each startup of the boiler, including the nature of the startup, sequence, and timing of major steps in the startup, any unusual occurrences during the startup, and any deviations from the established startup procedures, with explanation.

2. Each shutdown of the boiler, including the nature and reason for the shutdown, sequence, and timing of major steps in the shutdown, any unusual occurrences during the shutdown, and any deviations from the established shutdown procedures, with explanation.

3. Each malfunction of the boiler system that significantly impairs emission performance, including the nature and duration of the event, sequence, and timing of major steps in the malfunction, corrective actions taken, any deviations from the established procedures for such a malfunction, and preventative actions taken to address similar events.

II. Copies of the steam charts and daily records of steam and electricity generation.

LL. Pursuant to Construction Permit #01100065, the Permittee shall maintain records of the following items related to fuels used in the boilers: [T1]

I. Records of the sampling and analysis of coal supply to the boilers.

II. The sulfur content of coal, lb sulfur/million Btu, supplied to the boilers.

III. The sulfur content of coal supplied to the boilers on a 30-day rolling average.

IV. The amount of fuel combusted in each boiler by type of fuel as specified in 40 CFR Part 60, Appendix A, Method 19.

MM. Pursuant to Construction Permit #08010051, the Permittee shall maintain an operating log or other records for the system that, at a minimum: [T1]

I. Identify the sorbent that is being used and each period of time when the boiler was in operation when the lime injection system was not being operated or was not operating to meet applicable or established work practices.

II. The nature of the incident, e.g., startup or shutdown of the boiler, malfunction or breakdown of the limestone injection system or the associated sorbent supply system or alternative mode of operation pursuant to an approved system evaluation program, and detailed description or explanation for the incident.

NN. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep a record of which coal (coal directly from the mine-mouth or off-site coal) the boilers are burning, the date the boilers switched to a different coal, and a detailed description of the nature of the interruption in the mine-mouth coal supply and document why it qualifies as an extended interruption. If coal from off-site is used, the Permittee shall maintain records demonstrating that any coal used was washed Illinois No. 5 and No. 6 coal during an extended interruption in the mine-mouth coal supply.

OO. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of the implementation of, and the maintenance of, the power plant preventive maintenance work order required by CCA A-2021-0051 to address coal conditioning and mercury emission sampling in the event of an extended outage.

PP. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain the following records:

I. A copy of the Fuel Management Plan for the boilers.

II. A copy of the site-specific monitoring plan(s).

III. Records addressing meters that are recording consumption of natural gas by each boiler.

IV. Records of the operating parameters of control system including:

1. Reagent injection rate for the SCR unit;

2. Voltages, currents & sparking rates for the ESP;

3. Reagent usage rates for the WFGD and

4. Voltages, currents, sparking rates and water flow for the WESP.

V. Records of the actual rate of lime injection on an hourly average basis.

**j. i. <u>Work Practice Requirements</u>**

A. Pursuant to 40 CFR 63.10000(b), at all times the Permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for

minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Illinois EPA 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.

B. Pursuant to Construction Permit #01100065, the Permittee shall use good air pollution control practices to minimize emissions during startup, shutdown and malfunction of a boiler, including the following: [T1-BACT]

I. Use of natural gas during startup to heat the boiler prior to initiating firing of coal;

II. Operation of the boiler and associated air pollution control equipment in accordance with written operating procedures that include Startup, Shutdown and Malfunction Plan(s); and

III. Inspection, maintenance and repair of the boiler and associated air pollution control equipment in accordance with written maintenance procedures.

IV. These requirements are applicable for emissions of $SO_2$, $NO_X$ and CO, for which continuous emissions monitoring is performed and the numerical limits address emissions during startup, shutdown and malfunction, as well as for emissions of PM, VOM and other pollutants, for which continuous emissions monitoring is not performed and the numerical limits do not apply during startup, shutdown and malfunction. For PM, VOM, sulfuric acid mist and hydrogen fluorides (for which the numerical limits do not apply during startup, shutdown and malfunction), the lb/hour limits, 3-hour average, which continue to apply during such periods, shall serve as "secondary limits" for purposes of BACT, with compliance determined based on engineering analysis and calculations.

C. Pursuant to Construction Permit #01100065, the Permittee shall maintain each boiler and associated air pollution control equipment in accordance with good air pollution control practices to assure proper functioning of equipment and minimize malfunctions, including maintaining the boiler in accordance with written procedures developed for this purpose. [T1]

D. Pursuant to Construction Permit #01100065, the Permittee shall operate each boiler and associated air pollution control equipment in accordance with good air pollution control practices to minimize emissions, by operating in accordance with detailed written operating procedures as it is safe to do so. These procedures at a minimum shall: [T1]

I. Address startup, normal operation, shutdown and malfunction events.

II. Fulfill applicable requirements 40 CFR Part 63, Subpart A for a Startup, Shutdown and Malfunction Plan, including detailed provisions for review of relevant operating parameters of the boiler systems during startup, shutdown and malfunction as necessary to make adjustments and corrections to reduce or eliminate any excess emissions.

III. With respect to startup, address readily foreseeable startup scenarios, including so called "hot startups" when the operation of a boiler is only temporarily interrupted, and provide for appropriate review of the operational condition of a boiler prior to initiating startup of the boiler.

IV. 1. With respect to malfunction, identify and address likely malfunction events with specific programs of corrective actions, and provide that upon occurrence of a malfunction that will result in emissions in excess of the applicable limits, the Permittee shall, as soon as practicable, repair the affected equipment, reduce the operating rate of the boiler or remove the boiler from service so that excess emissions cease.

2. If the Permittee has maintained and operated a boiler and associated air pollution control equipment so that malfunctions are infrequent, sudden, not caused by poor maintenance or careless operation, and in general are not reasonably preventable, the Permittee shall begin shutdown of the boiler within 90 minutes, unless the malfunction is expected to be repaired within 120 minutes or such shutdown could threaten the stability of the regional electrical power supply. In such case, shutdown of the system shall be undertaken when it is apparent that repair will not be accomplished within 120 minutes or shutdown will not endanger the regional power system. In no case shall shutdown of the boiler be delayed solely for the economic benefit of the Permittee.

Note: If the Permittee determines that the CEMS is inaccurately reporting excess emissions, the boiler may continue to operate provided the Permittee records the information it is relying upon to conclude that the boiler and associated emission control systems are functioning properly and the CEMS is reporting inaccurate data and the Permittee takes prompt action to resolve the accuracy of the CEMS.

E. Pursuant to Construction Permit #08010051, at all times, the Permittee shall, to the extent practicable, maintain and operate the lime injection system in a manner consistent with good air pollution control practice for minimizing emissions from the boilers and the source. [T1]

ii. Compliance Method (Work Practice Requirements)

Monitoring

A. Pursuant to 40 CFR 60.49Da(w), the Permittee shall install, certify, operate, and maintain the CEMS as specified below:

I. Pursuant to 40 CFR 60.49Da(w)(1), except as provided for under 40 CFR 60.49Da(w)(2), (w)(3), and (w)(4), each $SO_2$, $NO_X$, $CO_2$, and $O_2$ CEMS required under 40 CFR 60.49Da(b) through (d) shall be installed, certified, and operated in accordance with the applicable procedures in 40 CFR 60 Appendix B Performance Specification 2 or 3 or according to the procedures in 40 CFR Part 75 Appendices A and B. Daily calibration drift (CD) assessments and quarterly accuracy determinations shall be done in accordance with 40 CFR 60 Appendix F Procedure 1, and a data assessment report (DAR), prepared according to 40 CFR 60 Appendix F Section 7 Procedure 1, shall be submitted with each compliance report required under 40 CFR 60.51Da.

Recordkeeping

B. Pursuant to 40 CFR 63.10021(e)(8), the Permittee shall maintain on-site and submit, if requested by the Illinois EPA, an annual report containing the information in 40 CFR 63.10021(e)(1) through (e)(9):

I. Pursuant to 40 CFR 63.10021(e)(8)(i), the concentrations of CO and $NO_X$ in the effluent stream in ppm by volume, and oxygen in volume percent, measured before and after an adjustment of the EGU combustion systems.

II. Pursuant to 40 CFR 63.10021(e)(8)(ii), a description of any corrective actions taken as a part of the combustion adjustment.

III. Pursuant to 40 CFR 63.10021(e)(8)(iii), the type(s) and amount(s) of fuel used over the 12 calendar months prior to an adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period.

C. Pursuant to Construction Permit #01100065, the Permittee shall maintain records for each boiler and associated control equipment of inspection, maintenance, and repair log(s) for the boiler system that, at a minimum, shall identify such activities that are performed related to components that may affect emissions; the reason for such activities, i.e., whether planned or initiated due to a specific event or condition; and any failure to carry out the established maintenance procedures, with explanation. [T1]

D. Pursuant to Construction Permit #08010051, the Permittee shall maintain a maintenance and repair log or other records for the system that, at a minimum, list the activities performed, with date and description for the lime injection system. [T1]

E. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain the following records:

I. A copy of the written operating procedures for the boilers.

**k. i. <u>Mandatory Greenhouse Gas Reporting Requirements – 40 CFR 98 Subpart D</u>**

A. Pursuant to 40 CFR 98.43(b), calculate biogenic $CO_2$ emissions under 40 CFR Part 98 Subpart D by following the applicable methods specified in 40 CFR 98.33(e). The $CO_2$ emissions (excluding biogenic $CO_2$) for units subject to 40 CFR Part 98 Subpart D that are reported under 40 CFR 98.3(c)(4)(i) and (c)(4)(iii)(B) shall be calculated by subtracting the biogenic $CO_2$ mass emissions calculated according to 40 CFR 98.33(e) from the cumulative annual $CO_2$ mass emissions from 40 CFR 98.43(a)(1). Separate calculation and reporting of biogenic $CO_2$ emissions is optional only for the 2010 reporting year pursuant to 40 CFR 98.3(c)(12) and required every year thereafter.

ii. <u>Compliance Method (Mandatory Greenhouse Gas Reporting Requirements – 40 CFR 98 Subpart D)</u>

<u>Monitoring</u>

A. Pursuant to 40 CFR 98.43(a), except as provided in 40 CFR 98.43(b), the Permittee shall continue to monitor $CO_2$ mass emissions as required under 40 CFR 75.13 or 40 CFR Part 75 Appendix G Section 2.3, and 40 CFR 75.64. Calculate $CO_2$, $CH_4$, and $N_2O$ emissions as follows:

I. Pursuant to 40 CFR 98.43(a)(1), the Permittee shall convert the cumulative annual $CO_2$ mass emissions reported in the fourth quarter electronic data report required under 40

CFR 75.64 from units of short tons to metric tons. To convert tons to metric tons, divide by 1.1023.

II. Pursuant to 40 CFR 98.43(a)(2), the Permittee shall calculate annual $CH_4$ and $N_2O$ mass emissions under 40 CFR Part 98 Subpart D by following the applicable method specified in 40 CFR 98.33(c).

B. Pursuant to 40 CFR 98.44, the Permittee shall follow the applicable quality assurance procedures for $CO_2$ emissions in 40 CFR Part 75, Appendices B, D, and G.

C. Pursuant to 40 CFR 98.45, the Permittee shall follow the applicable missing data substitution procedures in 40 CFR Part 75 for $CO_2$ concentration, stack gas flow rate, fuel flow rate, high heating value, and fuel carbon content.

Recordkeeping

D. Pursuant to 40 CFR 98.47, the Permittee shall comply with the recordkeeping requirements of 40 CFR 98.3(g) and 98.37. Records retained under 40 CFR 75.57(h) for missing data events satisfy the recordkeeping requirements of 40 CFR 98.3(g)(4) for those same events.

## 3. Non-Applicability Determinations

a. The coal-fired boilers are exempt from the opacity standard under 40 CFR 60.42Da(b), because the Permittee elected to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of 40 CFR 60.42Da, pursuant to 40 CFR 60.42Da(b)(1).

b. The coal-fired boilers are not subject to the New Source Performance Standards (NSPS) for Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60 Subpart Db, because the boilers are steam generating units meeting the applicability requirements under 40 CFR 60 Subpart Da, pursuant to 40 CFR 60.40b(e).

c. The coal-fired boilers are not subject to the New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60 Subpart Dc, because the boilers have a maximum design heat input capacity of greater than 100 million British thermal units per hour (MMBtu/h) (29 megawatts (MW), pursuant to 40 CFR 60.40c(a).

d. The coal-fired boilers are not subject to the National Emission Standards for Hazardous Air Pollution (NESHAP) for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR Part 63 Subpart DDDDD, because the boilers are electric utility steam generating units (EGUs) covered by 40 CFR 63 Subpart UUUUU, pursuant to 40 CFR 63.7491(a).

e. The boilers are not subject to the National Emission Standards for Hazardous Air Pollution (NESHAP) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR Part 63 Subpart JJJJJJ, because the boilers are not located at, or a part of, an area source of hazardous air pollutants (HAP), as defined by 40 CFR 63.2, pursuant to 40 CFR 63.11193.

f. The coal-fired boilers are not subject to 35 IAC 215.301 and 215.302, because the boilers are fuel combustion emission sources as defined under 35 IAC 211.2470, pursuant to 35 IAC 215.303.

g. The coal-fired boilers are not subject to 35 IAC 217.141, because the boilers are not located in the Chicago or St. Louis (Illinois) major metropolitan areas as defined by 35 IAC 211.3590.

h. The coal-fired boilers are not subject to 35 IAC 217 Subpart D, and by extension 35 IAC 217 Subpart E and Subpart M, because the boilers are not located in an area defined by 35 IAC 217.150(a)(1)(A).

i. The coal-fired boilers are not subject to 35 IAC 217 Subpart U or Subpart W, because 35 IAC 217 Subpart U and Subpart W are sunset, pursuant to 35 IAC 217.451 and 35 IAC 217.751, respectively.

j. The boilers are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for major stationary sources, for:

i. $SO_2$, $NO_X$, CO, and mercury, because the boilers are subject to emission limitations or standards for which this CAAPP permit specifies a continuous compliance determination method as defined in 40 CFR 64.1, pursuant to 40 CFR 64.2(b)(1)(vi).

ii. VOM, hydrogen fluorides, lead, beryllium, and hydrogen chloride, because the boilers are subject to an NSPS proposed after November 15, 1990, pursuant to 40 CFR 64.2(b)(1)(i).

## 4. Other Requirements

For the emission units in Condition 4.1.1 above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

**a. <u>Start-Up, Shutdown, and Malfunction Breakdown Requirements</u>**

i. <u>Authorization for Federal Startup Requirements</u>

A. Pursuant to 40 CFR 63.9991(a), the Permittee must meet the requirements in 40 CFR 63.9991(a)(1) and (2). The Permittee must meet these requirements at all times.

I. Pursuant to 40 CFR 63.9991(a)(1) and 40 CFR 63.10000(a), the Permittee must meet each applicable emission limit and work practice standard in 40 CFR 63 Subpart UUUUU Table 3, for each EGU, except as provided under 40 CFR 63.10009.

1. Pursuant to 40 CFR 63 Subpart UUUUU Table 3 Item 3(a), the Permittee must operate all CMS during startup. Startup means either the first-ever firing of fuel in a boiler for the purpose of producing electricity, or the firing of fuel in a boiler after a shutdown event for any purpose. Startup ends when any of the steam from the boiler is used to generate electricity for sale over the grid or for any other purpose (including on site use). For startup of a unit, the Permittee must use clean fuels as defined in 40 CFR 63.10042 for ignition. Once converted to firing coal, the Permittee must engage all of the applicable control technologies except dry scrubber and SCR. The Permittee must start the dry scrubber and SCR systems, if present, appropriately to comply with relevant standards applicable during normal operation. The Permittee must comply with all applicable emissions limits at all times except for periods that meet the applicable definition of startup in 40 CFR 63 Subpart UUUUU.

2. Pursuant to 40 CFR 63 Subpart UUUUU Table 3 Item 3(c), because the Permittee chooses to use just one set of sorbent traps to demonstrate compliance with the applicable Hg emission limit, the Permittee must comply with the limit at all times; otherwise, the Permittee must comply with the applicable emission limit at all times except for startup periods.

3. Pursuant to 40 CFR 63 Subpart UUUUU Table 3 Item 4, the Permittee must comply with all applicable emission limits at all times except during startup periods at which time the Permittee must meet work practice in 40 CFR Subpart UUUUU Table 3.

ii. Compliance Method (Authorization for Federal Startup Requirements)

A. Pursuant to 40 CFR 63.10007(f), the following default values are available for use in the emission rate calculations during startup periods (as defined in 40 CFR 63.10042). For the purposes of 40 CFR 63 Subpart UUUUU, these default values are not considered to be substitute data.

I. Pursuant to 40 CFR 63.10007(f)(1)(ii), when using CEMS to comply with a heat input-based emission rate limit, the Permittee may use 5% for $CO_2$ or 14% for $O_2$ for a startup hour in which the measured $CO_2$ concentration is below the cap value or the measured $O_2$ concentration is above the cap value.

II. Pursuant to 40 CFR 63.10007(f)(2), when using CEMS to continuously monitor Hg, $SO_2$, or PM emissions, the following default value is available for use in the emission rate calculations during startup periods (as defined in 40 CFR 63.10042). For the purposes of 40 CFR 63 Subpart UUUUU, this default value is not considered to be substitute data. For a startup hour in which there is heat input to an affected EGU but zero gross output, the Permittee must calculate the pollutant emission rate using a value equivalent to 5% of the maximum sustainable gross output, expressed in megawatts, as defined in 40 CFR 75 Appendix A Section 6.5.2.1(a)(1). This default gross output is either the nameplate capacity of the EGU or the highest gross output observed in at least four representative quarters of EGU operation. For a monitored common stack, the default gross output is used only when all EGUs are operating (i.e., combusting fuel) are in startup mode, and have zero electrical generation. Under those conditions, a default gross output equal to 5% of the combined maximum sustainable gross output of the EGUs that are operating but have a total of zero gross output must be used to calculate the hourly gross output-based pollutant emissions rate.

Monitoring

B. Pursuant to 40 CFR 63 Subpart UUUUU Table 3 Item 3(d), the Permittee must collect monitoring data during startup periods, as specified in 40 CFR 63.10020(a) and (e).

C. Pursuant to 40 CFR 63.10000(l), the Permittee must certify, operate, maintain, and quality assure each monitoring system necessary for demonstrating compliance with the work practice standards for PM or non-mercury HAP metals during startup periods.

Recordkeeping

D. Pursuant to 40 CFR 63 Subpart UUUUU Table 3 Items 3(a) and 3(d), the Permittee must keep records during startup periods, as provided in 40 CFR 63.10021(h) and 63.10032.

E. Pursuant to 40 CFR 63.10000(l), the Permittee must collect, record, and maintain data obtained from monitoring systems for PM or non-mercury HAP metals during startup periods.

F. Pursuant to 40 CFR 63.10032(f)(1), the Permittee shall keep records of the occurrence and duration of each startup.

G. Pursuant to 40 CFR 63.10032(i), the Permittee must keep records of the type(s) and amount(s) of fuel used during each startup.

Reporting

H. Pursuant to 40 CFR 63 Subpart UUUUU Table 3 Item 3(a), the Permittee must provide reports concerning activities and startup periods, as specified in 40 CFR 63.10011(g) and 40 CFR 63.10021(h).

I. Pursuant to 40 CFR 63 Subpart UUUUU Table 3 Item 3(d), the Permittee must provide reports concerning activities and startup periods, as specified in 40 CFR 63.10011(g), 63.10021(i), and 63.10031. The Permittee may not use paragraph (2) of the definition of startup in 40 CFR 63.10042.

J. Pursuant to 40 CFR 63.10000(l), the Permittee must report data obtained from the monitoring systems for PM or non-mercury HAP metals during startup periods and shutdown periods.

K. Pursuant to 40 CFR 63.10021(h), the Permittee must follow the startup requirements as given in 40 CFR 63 Subpart UUUUU Table 3 for each coal-fired EGU.

I. Pursuant to 40 CFR 63.10021(h)(1), the Permittee may use the diluent cap and default gross output values, as described in 40 CFR 63.10007(f), during startup periods.

II. Pursuant to 40 CFR 63.10021(h)(2), the Permittee must operate all CMS, collect data, calculate pollutant emission rates, and record data during startup periods.

III. Pursuant to 40 CFR 63.10021(h)(4), the Permittee may choose to submit an alternative non-opacity emission standard, in accordance with the requirements contained in 40 CFR 63.10011(g)(4). Until promulgation in the Federal Register of the final alternative non-opacity emission standard, the Permittee shall comply with paragraph (1) of the definition of “startup” in 40 CFR 63.10042.

iii. Authorization for Federal Shutdown Requirements

A. Pursuant to 40 CFR 63.9991(a), the Permittee must meet the requirements in 40 CFR 63.9991(a)(1) and (2). The Permittee must meet these requirements at all times.

I. Pursuant to 40 CFR 63.9991(a)(1), the Permittee must meet each applicable emission limit and work practice standard in 40 CFR 63 Subpart UUUUU Table 3, for each EGU, except as provided under 40 CFR 63.10009.

1. Pursuant to 40 CFR Subpart UUUUU, Table 3, Item 3(a), the Permittee must comply with all applicable emissions limits at all times except for periods that meet the applicable definition of shutdown in 40 CFR Subpart UUUUU.

2. Pursuant to 40 CFR 63 Subpart UUUUU, Table 3, Item 3(c), because the Permittee chooses to use just one set of sorbent traps to demonstrate compliance with the applicable Hg emission limit, the Permittee must comply with the limit at all times; otherwise, the Permittee must comply with the applicable emission limit at all times except for shutdown periods.

3. Pursuant to 40 CFR 63 Subpart UUUUU, Table 3, Item 4, the Permittee must operate all CMS during shutdown. The Permittee must also collect appropriate data, and the Permittee must calculate the pollutant emission rate for each hour of shutdown for those pollutants for which a CMS is used.

   While firing coal fuel during shutdown, the Permittee must vent emissions to the main stack(s) and operate all applicable control devices and continue to operate those control devices after the cessation of coal fuel being fed into the EGU and for as long as possible thereafter considering operational and safety concerns. In any case, the Permittee must operate the controls when necessary to comply with other standards made applicable to the EGU by a permit limit or a rule other than 40 CFR 63 Subpart UUUUU and that require operation of the control devices.

   If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel must be one or a combination of the clean fuels defined in 40 CFR 63.10042 and must be used to the maximum extent possible, taking into account considerations such as not compromising boiler or control device integrity.

   The Permittee must comply with all applicable emission limits at all times except during shutdown periods at which time the Permittee must meet the work practice in 40 CFR 63 Subpart UUUUU Table 3.

iv. Compliance Method (Authorization for Federal Shutdown Requirements)

A. Pursuant to 40 CFR 63.10007(f), the following default values are available for use in the emission rate calculations during shutdown periods (as defined in 40 CFR 63.10042). For the purposes of 40 CFR 63 Subpart UUUUU, these default values are not considered to be substitute data.

I. Pursuant to 40 CFR 63.10007(f)(1)(ii), when using CEMS to comply with a heat input-based emission rate limit, the Permittee may use 5% for $CO_2$ or 14% for $O_2$ for a shutdown hour in which the measured $CO_2$ concentration is below the cap value or the measured $O_2$ concentration is above the cap value:

II. Pursuant to 40 CFR 63.10007(f)(2), when using CEMS to continuously monitor Hg, $SO_2$, or PM emissions, the following default value is available for use in the emission rate calculations during shutdown periods (as defined in 40 CFR 63.10042). For the purposes of 40 CFR 63 Subpart UUUUU, this default value is not considered to be substitute data. For a shutdown hour in which there is heat input to an affected EGU but zero gross output, the Permittee must calculate the pollutant emission rate using a value equivalent to 5% of the maximum sustainable gross output, expressed in megawatts, as defined in 40 CFR 75 Appendix A Section 6.5.2.1(a)(1). This default gross output is either the nameplate capacity of the EGU or the highest gross output observed in at least four representative quarters of EGU operation. For a monitored common stack, the default gross output is used only when all EGUs are operating (i.e., combusting fuel) are in shutdown mode, and have zero electrical generation. Under those conditions, a default gross output equal to 5% of the combined maximum sustainable gross output of the EGUs that are operating but have a total of zero gross output must be used to calculate the hourly gross output-based pollutant emissions rate.

Monitoring

B. Pursuant to 40 CFR 63 Subpart UUUUU, Table 3, Item 4, the Permittee must collect monitoring data during shutdown periods, as specified in 40 CFR 63.10020(a).

C. Pursuant to 40 CFR 63.10000(l), the Permittee must certify, operate, maintain, and quality assure each monitoring system necessary for demonstrating compliance with the work practice standards for PM or non-mercury HAP metals during shutdown periods.

Recordkeeping

D. Pursuant to 40 CFR 63 Subpart UUUUU, Table 3, Item 4, the Permittee must keep records during shutdown periods, as provided in 40 CFR 63.10032 and 63.10021(h). Any fraction of an hour in which shutdown occurs constitutes a full hour of shutdown.

E. Pursuant to 40 CFR 63.10000(l), the Permittee must collect, record, and maintain data obtained from the monitoring systems for PM and non-mercury HAP metals during shutdown periods.

F. Pursuant to 40 CFR 63.10032(f)(1), the Permittee shall keep records of the occurrence and duration of each shutdown.

G. Pursuant to 40 CFR 63.10032(i), the Permittee must keep records of the type(s) and amount(s) of fuel used during each shutdown.

Reporting

H. Pursuant to 40 CFR 63 Subpart UUUUU Table 3 Item 4, the Permittee must provide reports concerning activities and shutdown periods, as specified in 40 CFR 63.10011(g), 63.10021(i), and 63.10031. The Permittee may not use paragraph (2) of the definition of startup in 40 CFR 63.10042.

I. Pursuant to 40 CFR 63.10000(l), the Permittee must report data obtained from the monitoring systems for PM or non-mercury HAP metals during shutdown periods.

J. Pursuant to 40 CFR 63.10021(h), the Permittee must follow the shutdown requirements as given in 40 CFR 63 Subpart UUUUU Table 3 for each coal-fired EGU.

   I. Pursuant to 40 CFR 63.10021(h)(1), the Permittee may use the diluent cap and default gross output values, as described in 40 CFR 63.10007(f), during shutdown periods.

   II. Pursuant to 40 CFR 63.10021(h)(2), the Permittee must operate all CMS, collect data, calculate pollutant emission rates, and record data during shutdown periods.

   III. Pursuant to 40 CFR 63.10021(h)(4), the Permittee may choose to submit an alternative non-opacity emission standard, in accordance with the requirements contained in 40 CFR 63.10011(g)(4). Until promulgation in the Federal Register of the final alternative non-opacity emission standard, the Permittee shall comply with paragraph (1) of the definition of “startup” in 40 CFR 63.10042.

## 5. Reporting Requirements

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

**a. Prompt Reporting**

i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows unless a different period is specified by a particular permit provision, i.e., NSPS or NESHAP requirement:

I. Requirements in Conditions 4.1.2(a)(i), 4.1.2(b)(i), 4.1.2(c)(i), 4.1.2(d)(i), 4.1.2(e)(i), 4.1.2(f)(i), 4.1.2(g)(i), 4.1.2(h)(i), 4.1.2(i)(i), 4.1.2(j)(i), and 4.1.2(k)(i).

II. Requirements in Conditions 4.1.4(a)(i) and 4.1.4(a)(iii).

B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).

ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).

iii. The deviation reports shall contain, at a minimum, the following information:

A. Date and time of the deviation.

B. Emission unit(s) and/or operation involved.

C. The duration of the event.

D. Probable cause of the deviation.

E. Corrective actions or preventative measures taken.

**b. Federal Reporting**

i. 40 CFR 60 Subpart Da

A. Pursuant to 40 CFR 60.49Da(s), the Permittee shall prepare and submit to the Illinois EPA for approval a unit-specific monitoring plan for each monitoring system, at least 45 days before commencing certification testing of the monitoring systems. The Permittee shall comply with the requirements the plan. The plan must address the requirements in 40 CFR 60.49Da(s)(1) through (6).

I. Pursuant to 40 CFR 60.49Da(s)(1), installation of the CEMS sampling probe or other interface at a measurement location relative to each coal-fired boiler such that the measurement is representative of the exhaust emissions (e.g., on or downstream of the last control device).

II. Pursuant to 40 CFR 60.49Da(s)(2), performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems.

III. Pursuant to 40 CFR 60.49Da(s)(3), performance evaluation procedures and acceptance criteria (e.g., calibrations, relative accuracy test audits (RATA), etc.).

IV. Pursuant to 40 CFR 60.49Da(s)(4), ongoing operation and maintenance procedures in accordance with the general requirements of 40 CFR 60.13(d) or 40 CFR Part 75 (as applicable).

V. Pursuant to 40 CFR 60.49Da(s)(5), ongoing data quality assurance procedures in accordance with the general requirements of 40 CFR 60.13 or 40 CFR Part 75 (as applicable).

VI. Pursuant to 40 CFR 60.49Da(s)(6), ongoing recordkeeping and reporting procedures in accordance with the requirements of 40 CFR 60 Subpart Da.

B. Pursuant to 40 CFR 60.49Da(v)(4), for the CEMS measuring PM emissions within 90 days after the date of completing each performance test, as defined in 40 CFR 60.8, conducted to demonstrate compliance with 40 CFR Part 60 Subpart Da, the Permittee must submit relative accuracy test audit (i.e., reference method) data and performance test (i.e., compliance test) data, except opacity data, electronically to USEPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see http://www.epa.gov/ttn/chief/ert/ert tool.html/) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFire database.

C. Pursuant to 40 CFR 60.51Da(a), for $SO_2$, $NO_X$, PM, and $NO_X$ plus CO emissions, the performance test data from the subsequent performance test and from the performance evaluation of the continuous monitors (including the transmissometer) must be reported to the Illinois EPA.

D. Pursuant to 40 CFR 60.51Da(b), for $SO_2$ and $NO_X$, the following information must be reported to the Illinois EPA for each 24-hour period.

I. Pursuant to 40 CFR 60.51Da(b)(1), calendar date.

II. Pursuant to 40 CFR 60.51Da(b)(2), the average $SO_2$ and $NO_X$ emission rates (ng/J, lb/MMBtu, or lb/MWh) for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the emission standards; and, description of corrective actions taken.

III. Pursuant to 40 CFR 60.51Da(b)(3), because the source complies with the percent reduction requirement, percent reduction of the potential combustion concentration of $SO_2$ for each 30 successive boiler operating days, ending with the last 30-day period in the quarter; reasons for non-compliance with the standard; and, description of corrective actions taken.

IV. Pursuant to 40 CFR 60.51Da(b)(4), identification of the boiler operating days for which pollutant or diluent data have not been obtained by an approved method for at least 75 percent of the hours of operation of the facility; justification for not obtaining sufficient data; and description of corrective actions taken.

V. Pursuant to 40 CFR 60.51Da(b)(5), identification of the times when emissions data have been excluded from the calculation of average emission rates because of startup, shutdown, or malfunction.

VI. Pursuant to 40 CFR 60.51Da(b)(6), identification of "F" factor used for calculations, method of determination, and type of fuel combusted.

VII. Pursuant to 40 CFR 60.51Da(b)(7), identification of times when hourly averages have been obtained based on manual sampling methods.

VIII. Pursuant to 40 CFR 60.51Da(b)(8), identification of the times when the pollutant concentration exceeded full span of the CEMS.

IX. Pursuant to 40 CFR 60.51Da(b)(9), description of any modifications to CEMS which could affect the ability of the CEMS to comply with Performance Specifications 2 or 3.

E. Pursuant to 40 CFR 60.51Da(c), if the minimum quantity of emission data as required by 40 CFR 60.49Da is not obtained for any 30 successive boiler operating days, the following information obtained under the requirements of 40 CFR 60.48Da(h) is reported to the Illinois EPA for that 30-day period:

I. Pursuant to 40 CFR 60.51Da(c)(1), the number of hourly averages available for outlet emission rates (no) and inlet emission rates ($n_i$) as applicable.

II. Pursuant to 40 CFR 60.51Da(c)(2), the standard deviation of hourly averages for outlet emission rates ($s_o$) and inlet emission rates ($s_i$) as applicable.

III. Pursuant to 40 CFR 60.51Da(c)(3), the lower confidence limit for the mean outlet emission rate ($E_o$*) and the upper confidence limit for the mean inlet emission rate ($E_i$*) as applicable.

IV. Pursuant to 40 CFR 60.51Da(c)(4), the applicable potential combustion concentration.

V. Pursuant to 40 CFR 60.51Da(c)(5), the ratio of the upper confidence limit for the mean outlet emission rate ($E_o$*) and the allowable emission rate ($E_{std}$) as applicable.

F. Pursuant to 40 CFR 60.51Da(f), for any periods for which $SO_2$ or $NO_X$ emissions data are not available, the Permittee shall submit a signed statement indicating if any changes were made in operation of the emission control system during the period of data unavailability. Operations of the control system and affected facility during periods of data unavailability are to be compared with operation of the control system and affected facility before and following the period of data unavailability.

G Pursuant to 40 CFR 60.51Da(h), the Permittee shall submit a signed statement indicating whether:

I. Pursuant to 40 CFR 60.51Da(h)(1), the required CEMS calibration, span, and drift checks or other periodic audits have or have not been performed as specified.

II. Pursuant to 40 CFR 60.51Da(h)(2), the data used to show compliance was or was not obtained in accordance with approved methods and procedures of 40 CFR Part 60 and is representative of plant performance.

III. Pursuant to 40 CFR 60.51Da(h)(3), the minimum data requirements have or have not been met; or, the minimum data requirements have not been met for errors that were unavoidable.

IV. Pursuant to 40 CFR 60.51Da(h)(4), compliance with the standards has or has not been achieved during the reporting period.

H. Pursuant to 40 CFR 60.51Da(j), the Permittee shall submit the written reports required under 40 CFR 60.51Da and 40 CFR 60 Subpart A to the Illinois EPA semiannually for each six-month period. All semiannual reports shall be postmarked by the 30th day following the end of each six-month period.

ii. 40 CFR 63 Subpart UUUUU

A. Pursuant to 40 CFR 63.10007(g), upon request, the Permittee shall make available to the Illinois EPA such records as may be necessary to determine whether the performance tests have been done according to the requirements of 40 CFR 63 Subpart 63.10007.

B. Pursuant to 40 CFR 63.10000(i)(2), the Permittee must provide 30 days prior notice of the date an EGU will cease complying with 40 CFR 63 Subpart UUUUU. The notification must identify:

I. Pursuant to 40 CFR 63.10000(i)(2)(i), the name of the Permittee, the location of the facility, the EGU(s) that will cease complying with 40 CFR 63 Subpart UUUUU, and the date of the notice;

II. Pursuant to 40 CFR 63.10000(i)(2)(ii), the currently applicable subcategory under 40 CFR 63 Subpart UUUUU, and any 40 CFR Part 60, Part 62, or Part 63 subpart and subcategory that will be applicable after the unit ceases complying with 40 CFR 63 Subpart UUUUU;

III. Pursuant to 40 CFR 63.10000(i)(2)(iii), the date on which the unit became subject to 40 CFR 63 Subpart UUUUU;

IV. Pursuant to 40 CFR 63.10000(i)(2)(iv), the date upon which the unit will cease complying with 40 CFR 63 Subpart UUUUU, consistent with 40 CFR 63.10000(g).

C. Pursuant to 40 CFR 63.10010(i), the Permittee must report the output of the PM CEMS as specified in 40 CFR 63.10010(i)(1) through (4).

D. Pursuant to 40 CFR 63.10021(e)(9), the Permittee shall report the tune-up date electronically in the quarterly compliance report, in accordance with 40 CFR 63.10031(g) and Section 10.2 of 40 CFR 63 Subpart UUUUU Appendix E. The tune-up report date is the date when tune-up requirements in 40 CFR 63.10021(e)(6) and (7) are completed.

E. Pursuant to 40 CFR 63.10021(f), the Permittee must submit the applicable reports and notifications required under 40 CFR 63.10031(a) through (k) using USEPA's Emissions Collection and Monitoring Plan System (ECMPS) Client Tool. If the final date of any time period (or any

deadline) for any of these submissions falls on a weekend or a Federal holiday, the time period shall be extended to the next business day. Moreover, if the EPA Host System supporting the ECMPS Client Tool is offline and unavailable for submission of reports for any part of a day when a report would otherwise be due, the deadline for reporting is automatically extended until the first business day on which the system becomes available following the outage. Use of the ECMPS Client Tool to submit a report or notification required under 40 CFR 63 Subpart UUUUU satisfies any requirement under 40 CFR 63 Subpart UUUUU Subpart A that same report or notification (or the information contained in it) to the appropriate USEPA Regional office or Illinois EPA.

F. Pursuant to 40 CFR 63.10021(g), the Permittee must report each instance in which the source did not meet an applicable emissions limit or operating limit in 40 CFR 63 Subpart UUUUU Tables 1 through 4 or failed to conduct a required tune-up. These instances are deviations from the requirements of 40 CFR 63 Subpart UUUUU. These deviations must be reported according to 40 CFR 63.10031.

G. Pursuant to 40 CFR 63.10030(a), the Permittee must submit all of the applicable notifications in 40 CFR 63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) by the dates specified.

H. Pursuant to 40 CFR 63.10030(d), when required to conduct a performance test, the Permittee must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.

I. Pursuant to 40 CFR 63.10030(f), the Permittee must submit the applicable notifications in 40 CFR 63.10000(h)(2) and (i)(2) by the dates specified.

J. Pursuant to 40 CFR 63.10031(a), the Permittee must submit each applicable report in 40 CFR 63.10031.

I. Pursuant to 40 CFR 63.10031(a)(1), for monitoring Hg emissions continuously, the Permittee must meet the electronic reporting requirements of 40 CFR 63 Subpart UUUUU Appendix A.

II. Pursuant to 40 CFR 63.10031(a)(3), for monitoring filterable PM emissions continuously, the Permittee must meet the electronic reporting requirements of 40 CFR 63 Subpart UUUUU Appendix C.

III. Pursuant to 40 CFR 63.10031(a)(5), because the Permittee elects to monitor $SO_2$ emission rate continuously as a surrogate for HCl, the Permittee must use the ECMPS Client Tool to submit the following information to USEPA (except where it is already required to be reported or has been previously provided under the Acid Rain Program or another emissions reduction program that requires the use of 40 CFR Part 75):

1. Pursuant to 40 CFR 63.10031(a)(5)(i), monitoring plan information for the $SO_2$ CEMS and for any additional monitoring systems that are required to convert $SO_2$ concentrations to units of the emission standard, in accordance with 40 CFR Sections 75.62 and 75.64(a)(4);

2. Pursuant to 40 CFR 63.10031(a)(5)(ii), certification, recertification, quality-assurance, and diagnostic test results for the $SO_2$ CEMS and for any additional

monitoring systems that are required to convert $SO_2$ concentrations to units of the emission standard, in accordance with 40 CFR 75.64(a)(5); and

3. Pursuant to 40 CFR 63.10031(a)(5)(iii), quarterly electronic emissions reports. The Permittee must submit an electronic quarterly report within 30 days after the end of each calendar quarter, starting with a report for the calendar quarter in which the initial 30 boiler operating day performance test begins. Each report must include the following information:

   aa. Pursuant to 40 CFR 63.10031(a)(5)(iii)(A), the applicable operating data specified in 40 CFR 75.57(b);

   bb. Pursuant to 40 CFR 63.10031(a)(5)(iii)(B), an hourly data stream for the unadjusted $SO_2$ concentration (in ppm, rounded to one decimal place), and separate unadjusted hourly data streams for the other parameters needed to convert the $SO_2$ concentrations to units of the standard. (Note: If a default moisture value is used in the emission rate calculations, an hourly data stream is not required for moisture; rather, the default value must be reported in the electronic monitoring plan.);

   cc. Pursuant to 40 CFR 63.10031(a)(5)(iii) (C), an hourly $SO_2$ emission rate data stream, in units of the standard (i.e., lb/MMBtu or lb/MWh, as applicable), calculated according to 40 CFR 63.10007(e) and (f)(1), rounded to the same precision as the emission standard (i.e., with one leading non-zero digit and one decimal place), expressed in scientific notation. The Permittee must use the following rounding convention: If the digit immediately following the first decimal place is 5 or greater, the first decimal place shall be rounded upward (increase it by one); if the digit immediately following the first decimal place is 4 or less, the first decimal place shall be left unchanged;

   dd. Pursuant to 40 CFR 63.10031(a)(5)(iii)(D), the results of all required daily quality-assurance tests of the $SO_2$ monitor and the additional monitors used to convert $SO_2$ concentration to units of the standard, as specified in 40 CFR 75 Appendix B; and

   ee. Pursuant to 40 CFR 63.10031(a)(5)(iii)(E), a compliance certification, which includes a statement, based on reasonable inquiry of those persons with primary responsibility for ensuring that all $SO_2$ emissions from the affected EGUs under 40 CFR 63 Subpart UUUUU have been correctly and fully monitored, by a responsible official with that official's name, title, and signature, certifying that, to the best of his or her knowledge, the report is true, accurate, and complete. The Permittee must submit such a compliance certification statement in support of each quarterly report.

K. Pursuant to 40 CFR 63.10031(b)(6), quarterly compliance reports shall be submitted in accordance with 40 CFR 63.10031(g).

L. Pursuant to 40 CFR 63.10031(d), the Permittee must include in the quarterly compliance reports described in 40 CFR 63.10031(g) the applicable data elements in 40 CFR 63 Subpart UUUUU

Appendix E Section 13 for any "deviation" (as defined in 40 CFR 63.10042 and elsewhere in 40 CFR 63 Subpart UUUUU) that occurred during the calendar quarter. If there were no deviations, the Permittee must include a statement to that effect in the quarterly compliance report.

M. Pursuant to 40 CFR 63.10031(f), for each test completed, in accordance with 40 CFR 63.10031(g), the Permittee must submit the applicable reference method information in 40 CFR 63 Subpart UUUUU Appendix E Sections 17 through 31 along with the quarterly compliance report for the calendar quarter in which the test was completed.

I. Pursuant to 40 CFR 63.10031(f)(1), for each $SO_2$ or Hg RATA completed, the Permittee must submit the applicable reference method information in 40 CFR 63 Subpart UUUUU Appendix E Sections 17 through 31 prior to or concurrent with the relevant quarterly emissions report. For correlation tests, RRAs, and RCAs of PM CEMS that are completed, the Permittee must submit the 40 CFR 63 Subpart UUUUU Appendix E reference method information together with the summarized electronic test results, in accordance with 40 CFR 63 Subpart UUUUU Appendix B Section 11.4 or 40 CFR 63 Subpart UUUUU Appendix C Section 7.2.4, as applicable.

II. Pursuant to 40 CFR 63.10031(f)(2), because the Permittee has elected to demonstrate compliance using a PM CEMS, the Permittee must submit quarterly PDF reports in accordance with 40 CFR 63.10031(f)(6), which include all of the 30-boiler operating day rolling average emission rates derived from the CEMS data. The quarterly reports are due within 60 days after the reporting periods ending on March 31st, June 30th, September 30th, and December 31st. The compliance averages shall no longer be reported separately but shall be incorporated into the quarterly compliance reports described in 40 CFR 63.10031(g). In addition to the compliance averages for PM CEMS, the quarterly compliance reports described in 40 CFR 63.10031(g) must also include the 30- (or, if applicable 90-) boiler operating day rolling average emission rates for Hg and $SO_2$.

III. Pursuant to 40 CFR 63.10031(f)(4), quarterly compliance reports shall be submitted in XML format in accordance with 40 CFR 63.10031(g).

IV. Pursuant to 40 CFR 63.10031(f)(5), all reports required by 40 CFR 63 Subpart UUUUU not subject to the requirements in 40 CFR 63.10031(f) introductory text and 40 CFR 63.10031(f)(1) through (4) must be sent to the Illinois EPA at the appropriate address listed in 40 CFR 63.13. If acceptable to both the Illinois EPA and the Permittee, these reports may be submitted on electronic media. The Illinois EPA retains the right to require submittal of reports subject to 40 CFR 63.10031(f) introductory text and 40 CFR 63.10031(f)(1) through (4) in paper format.

V. Pursuant to 40 CFR 63.10031(f)(6), all reports and notifications described in 40 CFR 63.10031(f) introductory text, 40 CFR 63.10031(f)(1), (2), and (4) shall be submitted to the Illinois EPA in the specified format and at the specified frequency, using the ECMPS Client Tool. Each PDF version of a stack test report, CEMS RATA report, PM CEMS correlation test report, RRA (Relative Accuracy Tests) report, and RCA (Relative Correlation Audit) report must include sufficient information to assess compliance and to demonstrate that the reference method testing was done properly. The following data elements must be entered into the ECMPS Client Tool at the time of submission of each PDF file:

1. Pursuant to 40 CFR 63.10031(f)(6)(i), the facility name, physical address, mailing address (if different from the physical address), and county;

2. Pursuant to 40 CFR 63.10031(f)(6)(ii), the ORIS code (or equivalent ID number assigned by USEPA's Clean Air Markets Division (CAMD)) and the Facility Registry System (FRS) ID;

3. Pursuant to 40 CFR 63.10031(f)(6)(iii), the EGU (or EGUs) to which the report applies. Report the EGU IDs as they appear in the CAMD Business System;

4. Pursuant to 40 CFR 63.10031(f)(6)(vi), the identification of each emission point to which the report applies. An "emission point" is a point at which source effluent is released to the atmosphere, and is either a dedicated stack that serves one of the EGUs identified in 40 CFR 63.10031(f)(6)(iii) or a common stack that serves two or more of those EGUs. To identify an emission point, associate it with the EGU or stack ID in the CAMD Business system or the electronic monitoring plan (e.g., "Unit 2 stack," "common stack CS001," or "multiple stack MS001");

5. Pursuant to 40 CFR 63.10031(f)(6)(vii), an indication of the type of PDF report or notification being submitted;

6. Pursuant to 40 CFR 63.10031(f)(6)(viii), the pollutant(s) being addressed in the report;

7. Pursuant to 40 CFR 63.10031(f)(6)(ix), the reporting period being covered by the report (if applicable);

8. Pursuant to 40 CFR 63.10031(f)(6)(x), the relevant test method that was performed for a performance test (if applicable);

9. Pursuant to 40 CFR 63.10031(f)(6)(xi), the date the performance test was completed (if applicable) and the test number (if applicable); and

10. Pursuant to 40 CFR 63.10031(f)(6)(xii), the responsible official's name, title, and phone number.

N. Pursuant to 40 CFR 63.10031(g), the Permittee must use the ECMPS Client Tool to submit quarterly electronic compliance reports. Each quarterly compliance report shall include the applicable data elements in 40 CFR 63 Subpart UUUUU Appendix E Sections 2 through 13. For each stack test summarized in the compliance report, the Permittee must also submit the applicable reference method information in 40 CFR 63 Subpart UUUUU Appendix E Sections 17 through 31. The compliance reports and associated appendix E information must be submitted by the Permittee no later than 60 days after the end of each calendar quarter.

O. Pursuant to 40 CFR 63.10031(j), the Permittee must use the ECMPS Client Tool to submit a detailed report of the PS 11 (Performance Specification 11) correlation test (see 40 CFR Part 60 Appendix B) in a PDF file no later than 60 days after that date. For a correlation test completed on or after January 1, 2024, the Permittee must submit the PDF report according to 40 CFR 63 Subpart UUUUU Appendix C Section 7.2.4. The applicable data elements in 40 CFR 63.10031(f)(6)(i) through (xii) must be entered into ECMPS with the PDF report.

iii. 40 CFR 98 Subpart D

A. Pursuant to 40 CFR 98.42(a), the Permittee must report under 40 CFR 98 Subpart D the annual mass emissions of $CO_2$, $N_2O$, and $CH_4$ by following the requirements of 40 CFR 98 Subpart D.

B. Pursuant to 40 CFR 98.43(a), except as provided in 40 CFR 98.43(b), the Permittee shall continue to report $CO_2$ mass emissions as required under 40 CFR 75.13 or 40 CFR Part 75 Appendix G Section 2.3, and 40 CFR 75.64. Calculate $CO_2$, $CH_4$, and $N_2O$ emissions as follows:

I. Pursuant to 40 CFR 98.43(a)(2), report annual $CH_4$ and $N_2O$ mass emissions under 40 CFR Part 98 Subpart D by following the applicable method specified in 40 CFR 98.33(c).

C. Pursuant to 40 CFR 98.43(b), the Permittee shall report biogenic $CO_2$ emissions under 40 CFR Part 98 Subpart D by following the applicable methods specified in 40 CFR 98.33(e). The $CO_2$ emissions (excluding biogenic $CO_2$) for units subject to 40 CFR Part 98 Subpart D that are reported under 40 CFR 98.3(c)(4)(i) and (c)(4)(iii)(B) shall be calculated by subtracting the biogenic $CO_2$ mass emissions calculated according to 40 CFR 98.33(e) from the cumulative annual $CO_2$ mass emissions from 40 CFR 98.43(a)(1). Separate calculation and reporting of biogenic $CO_2$ emissions is required every year.

D. Pursuant to 40 CFR 98.46, the annual report shall comply with the data reporting requirements specified in 40 CFR 98.36(d)(1).

**c. State Reporting**

i. 35 IAC 217 Subpart V

A. Pursuant to 35 IAC 217.712(a), the Permittee shall comply with the reporting requirements of 40 CFR 75 applicable to $NO_X$ emissions during the ozone control period.

B. Pursuant to 35 IAC 217.712(c), the Permittee shall submit, with the report required under 35 IAC 217.712(d), the following certification statement, to be signed by a responsible official:

> "I certify under penalty of law that this report and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief after due inquiry, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."
>
> Signature
>
> Name
>
> Official Title
>
> Telephone No.
>
> Date Signed

C. Pursuant to 35 IAC 217.712(d), by November 30 of each year the Permittee shall submit to the Illinoi EPA a report that demonstrates each coal-fired boiler has not exceeded a $NO_X$ emission rate of 0.25 lbs/mmbtu during the ozone control period.

D. Pursuant to 35 IAC 217.712(g), the Permittee shall submit copies of any records and data required by 35 IAC 217.712 to the Illinois EPA within 30 days after receipt of a written request by the Illinois EPA.

**d. Title I Reporting**

i. Construction Permit #01100065

A. Pursuant to Construction Permit #01100065, the Permittee shall notify the Illinois EPA prior to using coal from off-site. This notification shall include a detailed description of the nature of the anticipated interruption in the mine-mouth coal supply and document why it qualifies as an extended interruption. This notification shall be submitted 15 days before beginning to use off-site coal or otherwise as soon as it is practicable to do so. Thereafter, the Permittee shall submit periodic progress reports on a schedule as specified by the Illinois EPA. [T1]

B. Pursuant to Construction Permit #01100065, test reports submitted by the Permittee shall include detailed information on the operating conditions of a boiler during testing, including: [T1]

I. Fuel consumption (in tons).

II. Composition of fuel, including the metals, chlorine and fluorine content, expressed in pound per million Btu.

III. Firing rate (million Btu/hr) and other significant operating parameters of the boiler, including temperature of the flue gas entering the SCR.

IV. Control device operating rates or parameter, e.g., SCR reagent injection rate, ESP voltages and current flows, WFGD pressure drop and reagent addition rate, WESP voltages current flows, and water flow rate.

V. Opacity of the exhaust from the boiler, 6-minute averages and 1-hour averages.

VI. Turbine/Generator output rate (MWe gross).

## 4.2 Bulk Material Handling, Processing, and Storage Operations – Subject to 40 CFR 60 Subparts Y and OOO

### 1. Emission Units and Operations

| *Emission Units* | *Pollutants Being Addressed* | *Applicable Federal Regulation* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|---|
| **Coal Handling/Processing Operations** | | | | | | |
| EU1 / EU50B | | | | | | |
| Conveyor from C-5A to C-6A<br>EU1/50B-1 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Conveyor from C-5B to C-6B<br>EU1/50B-2 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Conveyor from C-6A to Unit 1 Loading<br>EU1/50B-3 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Conveyor from C-6B to Unit 1 Loading<br>EU1/50B-4 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| EU2 | | | | | | |
| Conveyor from C-6A to Unit 2 Loading<br>EU2-1 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Conveyor from C-6B to Unit 2 Loading<br>EU2-2 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| | | | | | | |
| Conveyor from MC-11 to C-1<br>EU16B | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Chutes with Dust Suppression Spray | None |
| Conveyor from Coal Piles A/B to the Stamler Feeder<br>EU41B1 | Opacity and PM | None | September 2007 | N/A | Dust Suppression Spray | None |

| *Emission Units* | *Pollutants Being Addressed* | *Applicable Federal Regulation* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|---|
| Conveyor from Stamler Feeder to C-4A<br><br>EU41B2 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Enclosure<br><br>Dust Suppression Spray | None |
| RC-6 to Refuse Bin<br><br>EU107A | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Chutes with Dust Suppression Spray | None |
| Refuse Bin to Truck<br><br>EU107B | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Chutes with Dust Suppression Spray | None |
| Active Coal Pile A<br><br>EU40A | Opacity and PM | None | September 2007 | N/A | Material Moisture<br><br>Dust Suppression Spray | None |
| Active Coal Pile B<br><br>EU40B | Opacity and PM | None | September 2007 | N/A | Material Moisture<br><br>Dust Suppression Spray | None |
| Long-Term Coal Storage Pile<br><br>EU40C | Opacity and PM | None | September 2007 | N/A | Material Moisture<br><br>Dust Suppression Spray | None |
| EU44 / EU45 | | | | | | |
| Conveyor from C-1 to C-2<br><br>EU44/EU45-1 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Conveyor from C-1 to Surge Bin<br><br>EU44/EU45-2 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Conveyor from C-4A to Surge Bin<br><br>EU44/EU45-3 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Conveyor from C-4B to Surge Bin<br><br>EU44/EU45-4 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Conveyor from Surge Bin to Belt Feeder A | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |

| *Emission Units* | *Pollutants Being Addressed* | *Applicable Federal Regulation* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|---|
| EU44/EU45-5 | | | | | | |
| Conveyor from Surge Bin to Belt Feeder B<br>EU44/EU45-6 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Conveyor from Belt Feeder A to Screen A<br>EU44/EU45-7 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Conveyor from Belt Feeder B to Screen B<br>EU44/EU45-8 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Conveyor from Screen A Grizzly to Crusher A<br>EU44/EU45-9 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Conveyor from Screen B Grizzly to Crusher B<br>EU44/EU45-10 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Conveyor from Screen A Grizzly to C-5A<br>EU44/EU45-11 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Conveyor from Screen B Grizzly to C-5B<br>EU44/EU45-12 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Conveyor from Crusher A to C-5A<br>EU44/EU45-13 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Conveyor from Crusher B to C-5B<br>EU44/EU45-14 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |

| *Emission Units* | *Pollutants Being Addressed* | *Applicable Federal Regulation* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|---|
| **Coal Handling/Processing Operations** | | | | | | |
| Storage Coal Piles (A&B) to Stamler Feeder<br><br>EU41B1 | Opacity and PM | None | September 2007 | N/A | Dust Suppression Spray | None |
| Stamler Feeder to Conveyor C-4A<br><br>EU41B2 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Chutes with Dust Suppression Spray | None |
| Conveyor from C-3 to Coal Pile A<br><br>EU48 | Opacity and PM | None | September 2007 | N/A | Dust Suppression Spray<br><br>Stacker | None |
| Conveyor C-2 to Coal Pile B<br><br>EU49A | Opacity and PM | None | September 2007 | N/A | Dust Suppression Spray<br><br>Stacker | None |
| Conveyor C-2 to C-3<br><br>EU49B | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Chutes with Dust Suppression Spray | None |
| Conveyor from MC-7 to 30,000 Ton Pile 1<br><br>EU102A | Opacity and PM | None | September 2007 | N/A | Chutes with Dust Suppression Spray<br><br>Stacking Tube | None |
| Conveyor from MC-8 to 50,000 Ton Pile 2 and MC-8 to MC-9<br><br>EU102B-1 & EU102B-2 | Opacity and PM | 40 CFR Part 60 Subpart Y (excludes loading to pile) | September 2007 | N/A | Stacking Tube<br><br>Chutes with Dust Suppression | None |
| Conveyor from MC-9 to 50,000 Ton Pile 3<br><br>EU102C | Opacity and PM | None | September 2007 | N/A | Chutes with Dust Suppression Spray | None |
| Conveyor C-7 to Feed Conveyor<br><br>EU102D | Opacity and PM | 40 CFR Part 60 Subpart Y | June 2020 | N/A | Dust Collector | Differential Pressure Gauge |
| Feed Conveyor to Sizing Screen | Opacity and PM | 40 CFR Part 60 Subpart Y | June 2020 | N/A | Enclosure | Differential Pressure Gauge |

| *Emission Units* | *Pollutants Being Addressed* | *Applicable Federal Regulation* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|---|
| EU102E | | | | | Dust Collector | |
| Sizing Screen to Surge Bin<br>EU102F | Opacity and PM | 40 CFR Part 60 Subpart Y | June 2020 | N/A | Enclosure<br>Dust Collector | Differential Pressure Gauge |
| Surge Bin to Vibrating Feeder<br>EU102G | Opacity and PM | 40 CFR Part 60 Subpart Y | June 2020 | N/A | Enclosure<br>Dust Collector | Differential Pressure Gauge |
| Vibrating Feeder to X-ray Sorter<br>EU102H | Opacity and PM | 40 CFR Part 60 Subpart Y | June 2020 | N/A | Dust Collector | Differential Pressure Gauge |
| Sizing Screen to Product Conveyor<br>EU102I | Opacity and PM | 40 CFR Part 60 Subpart Y | June 2020 | N/A | Dust Collector | Differential Pressure Gauge |
| X-ray Sorter #1<br>EU102J | Opacity and PM | 40 CFR Part 60 Subpart Y | June 2020 | N/A | Dust Collector | Differential Pressure Gauge |
| X-ray Sorter to Product Conveyor<br>EU102L | Opacity and PM | 40 CFR Part 60 Subpart Y | June 2020 | N/A | Dust Collector | Differential Pressure Gauge |

| *Emission Units* | *Pollutants Being Addressed* | *Applicable Federal Regulation* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|---|
| **Coal Handling/Processing Operations** | | | | | | |
| Product Conveyor to C-7 or C-8<br><br>EU102M | Opacity and PM | 40 CFR Part 60 Subpart Y | June 2020 | N/A | Dust Collector | Differential Pressure Gauge |
| X-ray Sorter to Sorter Reject Conveyor<br><br>EU102N | Opacity and PM | 40 CFR Part 60 Subpart Y | June 2020 | N/A | Dust Collector | Differential Pressure Gauge |
| X-ray Sorter Reject Conveyor to Reject Transfer Conveyor<br><br>EU102O | Opacity and PM | 40 CFR Part 60 Subpart Y | June 2020 | N/A | Dust Collector | Differential Pressure Gauge |
| Reject Transfer Conveyor to C-6<br><br>EU102P | Opacity and PM | 40 CFR Part 60 Subpart Y | June 2020 | N/A | Enclosure<br><br>Dust Suppression Spray | None |
| Coal Storage Pile A<br><br>EU103A | Opacity and PM | None | September 2007 | N/A | Material Moisture | None |
| Coal Storage Pile B<br><br>EU103B | Opacity and PM | None | September 2007 | N/A | Material Moisture | None |
| Coal Storage Pile C<br><br>EU103C | Opacity and PM | None | September 2007 | N/A | Material Moisture | None |
| Conveyor from MC-1 to MC-2<br><br>EU104 | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Chutes with Dust Suppression Spray | None |
| EU105 | | | | | | |
| MC-3 to Screening Facility<br><br>EU105A | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Chutes with Dust Suppression Spray | None |
| MC-4 to Screening Facility | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Chutes with Dust | None |

| *Emission Units* | *Pollutants Being Addressed* | *Applicable Federal Regulation* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|---|
| EU105B | | | | | Suppression Spray | |
| Screening Facility to MC-8<br><br>EU105C | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Chutes with Dust Suppression Spray | None |
| Screening Facility to Rotary Breaker<br><br>EU105D | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Chutes with Dust Suppression Spray | None |
| Rotary Breaker to MC-7<br><br>EU105E | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Chutes with Dust Suppression Spray | None |
| Rotary Breaker to RC-6<br><br>EU105F | Opacity and PM | 40 CFR Part 60 Subpart Y | September 2007 | N/A | Chutes with Dust Suppression Spray | None |
| Coal Surge Pile<br><br>EU118 | Opacity and PM | None | September 2007 | N/A | Material Moisture<br><br>Dust Suppression Spray | None |
| Conveyor from MC-2 to 6,000 Ton Surge Pile<br><br>EU118A | Opacity and PM | None | September 2007 | N/A | Adjustable Stacker<br><br>Dust Suppression Spray | None |

| *Emission Units* | *Pollutants Being Addressed* | *Applicable Federal Regulation* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|---|
| **Limestone Handling/Processing Operations** | | | | | | |
| Transfer Point (Conveyor from Rail Car to Unloading Hopper)<br><br>EU17 | Opacity and PM | 40 CFR Part 60 Subpart OOO | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Transfer Point (Conveyor from LS-1 to Limestone Storage Pile)<br><br>EU58 | Opacity and PM | 40 CFR Part 60 Subpart OOO | September 2007 | N/A | Dust Collector | Differential Pressure Gauge |
| Covered Limestone Pile<br><br>EU58P | Opacity and PM | None | September 2007 | N/A | Cover | None |
| Long-Term Limestone Storage Pile<br><br>EU62 | Opacity and PM | None | September 2007 | N/A | Dust Suppression Spray | None |
| Limestone Prep Transfer Point (Diverter Gate A to Limestone Day Bin A and Diverter Gate B to Limestone Day Bin A)<br><br>EU75A | Opacity and PM | 40 CFR Part 60 Subpart OOO | September 2007 | N/A | Bin Vent Filter | None |
| Limestone Prep Transfer Point (Diverter Gate A to Limestone Day Bin B and Diverter Gate B to Limestone Day Bin B)<br><br>EU75B | Opacity and PM | 40 CFR Part 60 Subpart OOO | September 2007 | N/A | Bin Vent Filter | None |

| *Emission Units* | *Pollutants Being Addressed* | *Applicable Federal Regulation* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|---|
| **Waste Disposal Facility** | | | | | | |
| **Landfill Haul Road** (Mine waste and breaker reject material, water treatment waste, & transfer material)<br><br>EU6 | Opacity and PM | None | October 2011 | N/A | Water Spray<br><br>And/or<br><br>Vacuum Sweeper Truck<br><br>Fugitive Particulate Operating Program | None |
| Handling of Cover Material, Placement of Materials & Wind Erosion at the Disposal Area and Placement of Material, Wind Erosion & Truck Loading at the Transfer Area<br><br>EU5 & EU9 | Opacity and PM | None | October 2011 | N/A | Water Spray | None |
| Material Transfer and Mechanical and Truck Unloading & Loading at the Disposal Area & Transfer Area<br><br>EU7 & EU8 | Opacity and PM | None | October 2011 | N/A | Water Spray | None |

| *Emission Units* | *Pollutants Being Addressed* | *Applicable Federal Regulation* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|---|
| **Coal Combustion Residuals (CCR) Handling and Load Out Facility and Fly Ash Handling Operations** | | | | | | |
| Bottom Ash Stacker Transfer to Pile<br><br>EU7A | Opacity and PM | None | March 2017 | N/A | Material Moisture | None |
| Bottom Ash Transfer to | Opacity and PM | None | March 2017 | N/A | Material Moisture | None |

| *Emission Units* | *Pollutants Being Addressed* | *Applicable Federal Regulation* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|---|
| Trucks EU7A | | | | | | |
| Bottom Ash Pile EU7A | Opacity and PM | None | March 2017 | N/A | Material Moisture | None |
| Gypsum Transfer to Pile EU7D | Opacity and PM | None | March 2017 | N/A | Material Moisture | None |
| Gypsum Transfer to Trucks EU7D | Opacity and PM | None | March 2017 | N/A | Material Moisture | None |
| Gypsum Pile EU7D | Opacity and PM | None | March 2017 | N/A | Material Moisture | None |
| Unit 1 to Unit 1 Fly Ash Storage Silos EU14A | Opacity and PM | None | September 2007 | N/A | Bin Vent Filter | Differential Pressure Gauge |
| Unit 2 to Unit 2 Fly Ash Storage Silos EU14B | Opacity and PM | None | September 2007 | N/A | Bin Vent Filter | Differential Pressure Gauge |
| Loadout from Existing Silos to Bulk Tanker Trucks EU14D-3 & EU14D-4 | Opacity and PM | None | October 2019 | N/A | Dust Collector | Differential Pressure Gauge |
| Fly Ash Transfer from Unit 1 Silo to Enclosed Bins EU14J | Opacity and PM | None | October 2019 | N/A | Dust Collector | Differential Pressure Gauge |
| Fly Ash Transfer from Unit 2 Silo to Enclosed Bins EU14K | Opacity and PM | None | October 2019 | N/A | Dust Collector | Differential Pressure Gauge |
| Transfer to Fly Ash Loadout Bins | Opacity and PM | None | October 2019 | N/A | Dust Collector | Differential Pressure Gauge |

| *Emission Units* | *Pollutants Being Addressed* | *Applicable Federal Regulation* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|---|
| EU14L | | | | | | |
| Fly Ash Loadout Spout Transfer to Railcar<br><br>EU14M | Opacity and PM | None | October 2019 | N/A | Dust Collectors | Differential Pressure Gauge |
| **CCR Haul Road**<br><br>Fly Ash, Bottom Ash and Gypsum Truck Haul Roads<br><br>(EU14H & EU7C) | Opacity and PM | None | September 2007 | N/A | Dust Suppression Spray | None |

| *Emission Units* | *Pollutants Being Addressed* | *Applicable Federal Regulation* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|---|
| **Material Storage** | | | | | | |
| Reject Material Storage Pile | Opacity and PM | None | September 2007 | N/A | None | None |
| Unit 1 Hydrated Lime Silo A<br><br>EU15A1 | Opacity and PM | None | September 2007 | N/A | Bin Vent Filter | Differential Pressure Gauge |
| Unit 1 Hydrated Lime Silo B<br><br>EU15A2 | Opacity and PM | None | September 2007 | N/A | Bin Vent Filter | Differential Pressure Gauge |
| Unit 2 Hydrated Lime Silo A<br><br>EU15A3 | Opacity and PM | None | September 2007 | N/A | Bin Vent Filter | Differential Pressure Gauge |
| Unit 2 Hydrated Lime Silo B<br><br>EU15A4 | Opacity and PM | None | September 2007 | N/A | Bin Vent Filter | Differential Pressure Gauge |
| Unit 1 Hydrated Lime Silo C<br><br>EU15B1 | Opacity and PM | None | September 2007 | N/A | Bin Vent Filter | Differential Pressure Gauge |
| Unit 2 Hydrated Lime Silo C<br><br>EU15B2 | Opacity and PM | None | September 2007 | N/A | Bin Vent Filter | Differential Pressure Gauge |

| *Emission Units* | *Pollutants Being Addressed* | *Applicable Federal Regulation* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|---|
| **Loaders/Dozers** | | | | | | |
| Front End Loaders<br><br>EU5, EU7A, EU7D, EU40C, & EU62 | Opacity and PM | None | September 2007 | N/A | Material Moisture<br><br>Dust Suppression Spray | None |
| Bulldozers<br><br>EU40A, EU40B, EU40C, EU58, EU62, EU103A, EU103B, EU103C, & EU118 | Opacity and PM | None | September 2007 | N/A | Material Moisture<br><br>Dust Suppression Spray | None |

*Limestone Handling/Processing Operations* means EU17, EU58, EU58P, EU62, EU75A, and EU75B as defined in Construction Permit #01100065.

*Loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of coal, rock, limestone, and ash* means EU1, EU2, EU14, EU16B, EU17, EU40A, EU40B, EU40C, EU41B, EU44, EU45, EU48, EU49, EU50B, EU58, EU62, EU75A, EU75B, EU102, EU103, EU105, EU107 as defined in Construction Permit #01100065.

*Waste Disposal Facility* means EU5, EU6, EU7, EU8, and EU9 as defined in Construction Permit #11080076.

*Activities at the Waste Disposal Facility with the potential for fugitive emissions, including handling of waste and cover materials at the working zone of the disposal area, the wind erosion, and the Landfill Haul Roads* means EP5, EP6, and EP9 as defined in Construction Permit #11080076.

*Fly Ash Handling Operations* means EU14D-3, EU14D-4, EU14J, EU14K, EU14L, and EU14M as defined in Construction Permit #17020018.

*The handling of bottom ash and gypsum, including the stacker operations, the storage piles and loadout operations* means: EU14D-3, EU14D-4, EU14J, EU14K, EU14L, EU14M, EP7A, and EP7D as defined in Construction Permit #17020018.

*Stackers used to stockpile bottom ash, and gypsum* means EU7A EU7D stackers as defined in Construction Permit #17020018.

*Coal Combustion Residuals (CCR) Handling and Load Out Facility* means EU14D-3, EU14D-4, EU14J, EU14K, EU14L, EU14M, EU7A, EU7D, EU14H, AND EUC7 as defined in Construction Permit #17020018.

*The CCR Haul Roads* means EU14H and EUC7 as defined in Construction Permit 17020018.

*The sizing screens* means EU102E, EU102F, and EU102G as defined in Construction Permit #20050015.

**2. Applicable Requirements**

For the emission units in Condition 4.2.1 above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

**a. i. Opacity Requirements**

A. Pursuant to 40 CFR 60.253(b)(2), the Permittee must not cause to be discharged into the atmosphere from the pneumatic coal-cleaning equipment (i.e., the X-ray sorting units) any gases that exhibit greater than 5 percent opacity.

B. Pursuant to 40 CFR 60.254(a), the Permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal gases which exhibit 20 percent opacity or greater.

C. Pursuant to 40 CFR 60.254(b)(1), except as provided in 40 CFR 60.254(b)(3), the Permittee must not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal (i.e., the sizing screens and conveying equipment built after April 28, 2008) any gases which exhibit 10 percent opacity or greater.

D. Pursuant to 40 CFR 60.672(a), the Limestone Handling/Processing Operations must meet the applicable stack emission limits and compliance requirements in 40 CFR 60 Subpart OOO Table 2. The requirements in 40 CFR 60 Subpart OOO Table 2 apply for Limestone Handling/Processing Operations with capture systems used to capture and transport particulate matter to a control device.

I. Pursuant to 40 CFR 60 Subpart OOO Table 2 Item 1, the Permittee must meet an opacity limit of 7 percent.

E. Pursuant to 40 CFR 60.672(b), the Limestone Handling/Processing Operations must meet the applicable fugitive emission limits and compliance requirements in 40 CFR 60 Subpart OOO Table 3. The requirements in 40 CFR 60 Subpart OOO Table 3 apply for fugitive emissions from the Limestone Handling/Processing Operations without capture systems and for fugitive emissions escaping capture systems.

I. Pursuant to 40 CFR 60 Subpart OOO Table 3 Item 1, the Permittee must meet fugitive emissions limit of 10 percent opacity for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations (as defined in 40 CFR 60.670 and 60.671).

II. Pursuant to 40 CFR 60 Subpart OOO Table 3 Item 1, the Permittee must meet a fugitive emissions limit of 15 percent opacity for crushers at which a capture system is not used.

F. Pursuant to 40 CFR 60.672(d), truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of 40 CFR 60.672.

G. Pursuant to 40 CFR 60.672(e), any transfer point on a Limestone Handling/Processing Operations conveyor belt or any other Limestone Handling/Processing Operation is enclosed in a building, then each enclosed Limestone Handling/Processing Operation must comply with the emission limits in 40 CFR 60.672(a) and (b), or the building enclosing the Limestone Handling/Processing Operations, or the Limestone Handling/Processing Operations must comply with the following emission limit:

I. Pursuant to 40 CFR 60.672(e)(1), fugitive emissions from the building openings (except for vents as defined in 40 CFR 60.671) must not exceed 7 percent opacity.

H. Pursuant to 40 CFR 60.672(f), any dust collector that controls emissions from only an individual, enclosed storage bin is exempt from the applicable stack PM concentration limit (and associated performance testing) in 40 CFR 60 Subpart OOO Table 2 but must meet the applicable stack opacity limit and compliance requirements in 40 CFR 60 Subpart OOO Table 2. This exemption from the stack PM concentration limit does not apply for multiple storage bins with combined stack emissions.

I. Pursuant to 35 IAC 212.123(a), the Permittee shall not cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from each emission unit, except as provided in 35 IAC 212.124.

J. Pursuant to Construction Permit #01100065, there shall be no visible fugitive emissions, as defined by 40 CFR 60.671, from storage buildings unless such emissions comply with the New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants, 40 CFR 60, Subpart OOO and related provisions of 40 CFR 60, Subpart A. [T1-BACT]

K. Pursuant to Construction Permit #01100065: [T1-BACT]

I. Coal handling operations at the mine facility, other than associated with storage piles, and the transfer belt between the mine facility and the power plant facility shall be controlled by enclosure or covers and fogging, material quality, or application of water or other dust suppressants so as to minimize fugitive emissions to the extent practicable.

II. For this purpose, for each coal handling unit, either:

1. There shall be no visible emissions from the affected unit, as determined in accordance with USEPA Method 22, or

2. A nominal control efficiency for particulate matter emissions of at least 99 percent shall be achieved from the uncontrolled emission rate, as determined using appropriate USEPA emission factors for uncontrolled particulate emissions and engineering analysis and calculations.

L. Pursuant to Construction Permit #17020018: [T1]

I. There shall be no visible emissions of particulate from the Fly Ash Handling Operations.

II. The stackers used to stockpile bottom ash and gypsum (EU7A and EU7D) shall be operated to minimize the drop distance and minimize visible emissions.

III. The water spray systems on the stackers shall be operated if needed to compensate for loss of moisture from materials during storage and prevent particulate emissions from the storage piles and the material loadout operations.

IV. The Permittee shall not perform grading activities at the bottom ash and gypsum stockpile areas.

M. Pursuant to Construction Permit #11080076: [T1]

I. There shall be no visible emissions of particulate matter (PM) from the conveyor belts for transfer of material to the disposal area at the Waste Disposal Facility (EU7 & EU8).

II. The stackers (EP7 & EP8) shall be operated to minimize the distance that materials fall and minimize visible emissions.

ii. Compliance Method (Opacity Requirements)

Monitoring

A. Pursuant to 40 CFR 60.257(a), the Permittee must determine compliance with the applicable opacity standards as specified in 40 CFR 60.257(a)(1) through (3).

I. Pursuant to 40 CFR 60.257(a)(1), USEPA Method 9 and the procedures in 40 CFR 60.11 must be used to determine opacity, with the exceptions specified in 40 CFR 60.257(a)(1)(i) and (ii).

1. 40 CFR 60.257(a)(1)(i), the duration of the USEPA Method 9 performance test shall be 1 hour (ten 6-minute averages).

2. 40 CFR 60.257(a)(1)(ii), if, during the initial 30 minutes of the observation of a USEPA Method 9 performance test, all of the 6-minute average opacity readings are less than or equal to half the applicable opacity limit, then the observation period may be reduced from 1 hour to 30 minutes.

II. Pursuant to 40 CFR 60.257(a)(2), to determine opacity for fugitive coal dust emissions sources, the additional requirements specified in 40 CFR 60.257(a)(2)(i) through (iii) must be used.

1. 40 CFR 60.257(a)(2)(i), the minimum distance between the observer and the emission source shall be 5.0 meters (16 feet), and the sun shall be oriented in the 140-degree sector of the back.

2. 40 CFR 60.257(a)(2)(ii), the observer shall select a position that minimizes interference from other fugitive coal dust emissions sources and make observations such that the line of vision is approximately perpendicular to the plume and wind direction.

3. 40 CFR 60.257(a)(2)(iii), the observer shall make opacity observations at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. Water vapor is not considered a visible emission.

III. Pursuant to 40 CFR 60.257(a)(3), a visible emissions observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions specified in 40 CFR 60.257(a)(3)(i) through (iii) are met.

1. Pursuant to 40 CFR 60.257(a)(3)(i), no more than three emissions points may be read concurrently.

2. Pursuant to 40 CFR 60.257(a)(3)(ii), all three emissions points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.

3. Pursuant to 40 CFR 60.257(a)(3)(iii), if an opacity reading for any one of the three emissions points is within 5 percent opacity from the applicable standard (excluding readings of zero opacity), then the observer must stop taking readings for the other two points and continue reading just that single point.

B. Pursuant to 40 CFR 60.675(b)(2), USEPA Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity for standards in 40 CFR 60.672(a).

C. Pursuant to 40 CFR 60.675(c)(1), in determining compliance with the particulate matter standards in 40 CFR 60.672(b) or 40 CFR 60.672(e)(1), the Permittee shall use USEPA Method 9 and the procedures in 40 CFR 60.11, with the following additions:

I. Pursuant to 40 CFR 60.675(c)(1)(i), the minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

II. Pursuant to 40 CFR 60.675(c)(1)(ii), the observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (USEPA Method 9) must be followed.

III. Pursuant to 40 CFR 60.675(c)(1)(iii), when using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

D. Pursuant to 40 CFR 60.675(c)(2)(i), in determining compliance with the opacity of stack emissions from any dust collector that controls emissions only from an individual enclosed storage bin under 40 CFR 60.672(f), using USEPA Method 9, the duration of the USEPA Method 9 observations shall be 1 hour (ten 6-minute averages).

E. Pursuant to 40 CFR 60.675(c)(2)(ii), the duration of the USEPA Method 9 observations may be reduced to the duration the unit operates (but not less than 30 minutes) for dust collectors that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time.

F. Pursuant to 40 CFR 60.675(c)(3), when determining compliance with the fugitive emissions standard for any units described under 40 CFR 60.672(b) or 40 CFR 60.672(e)(1), the duration of the USEPA Method 9 observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in 40 CFR 60 Subpart OOO Table 3 must be based on the average of the five 6-minute averages.

G. Pursuant to Construction Permit #01100065, Method 9 shall be used for opacity measurements for the loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of coal, rock, limestone, and ash subject to 40 CFR Part 60, Subpart OOO, as specified in 40 CFR 60.675 (EU17, EU58, EU75A, and EU75B). [T1]

I. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall perform the Method 9 opacity measurements every calendar month.

H. Pursuant to Construction Permit #01100065, opacity measurements shall be performed by certified observers using Method 9 for loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of coal, rock, limestone, and ash subject to 40 CFR 60, Subpart Y, as specified in 40 CFR 60.254 (EU1, EU2, EU16B, EU41B, EU44, EU45, EU49, EU50B, EU102, EU103, EU105, and EU107). [T1]

I. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall perform the Method 9 opacity measurements every calendar month.

I. Pursuant to Construction Permit #11080076, upon written request by the Illinois EPA, the Permittee shall promptly have observations for opacity of emissions from the Waste Disposal Facility operations and activities, as specified by the request, conducted in accordance with USEPA Method 9. [T1]

J. Pursuant to Construction Permit #17020018, upon written request by the Illinois EPA, the Permittee shall promptly have observations for opacity of emissions from Coal Combustion Residuals (CCR) Handling and Load Out Facility, as specified by the request, conducted in accordance with USEPA Method 9. CCR are fly ash, bottom ash, and gypsum. [T1]

K. Pursuant to Section 39.5(7)(b) of the Act, all opacity observations shall be conducted during normal operating conditions.

Recordkeeping

L. Pursuant to Construction Permit #01100065, the Permittee shall keep records for all opacity observations made in accordance with USEPA Method 9 conducted by individuals who are certified to make such observations. For each occasion on which such observations are made, these records shall include: [T1]

I. The identity of the observer;

II. A description of the various observations that were made;

III. The observed opacity from individual units, and copies of the raw data sheets for the observations.

M. Pursuant to Construction Permit #11080076, the Permittee shall keep records for all opacity observations made in accordance with USEPA Method 9 for operations and activities at the Waste Disposal Facility that it conducts or that are conducted on its behalf by individuals who are certified to make such observations. For each occasion on which such observations are made, these records shall include: [T1]

I. The identity of the observer;

II. A description of the various observations that were made;
III. The observed opacity from individual units;

IV. Copies of the raw data sheets for the observations.

N. Pursuant to Construction Permit #17020018, the Permittee shall keep records for all opacity observations made in accordance with USEPA Method 9 for the CCR Handling and Load Out Facility that it conducts or that are conducted on its behalf by individuals who are certified to make such observations. For each occasion on which such observations are made, these records shall include: [T1]

I. The identity of the observer.

II. A description of the various observations that were made.

III. The observed opacity from individual units.

IV. Copies of the raw data sheets for the observations.

O. Pursuant to Construction Permit #17020018, the Permittee shall maintain records for the implementation of control measures for the fly ash material handling operations, and the stackers used to stockpile bottom ash and gypsum, including: [T1]

I. Detailed records for periods when additional control measures were used due to particular circumstances, including:

1. Date;

2. Description;

3. Explanation; and

4. Expected duration of such circumstances.

II. Detailed records for each incident when the fly ash material handling operations or the stackers used to stockpile bottom ash and gypsum were operated without appropriate emission control measures:

1. The date of the incident.

2. A description of the incident, including: the control measure that were not present or implemented; the control measures that were present, if any; other control measures or mitigation measures that were implemented, if any; and the magnitude of the PM emissions during the incident.

3. The time at and means by which the incident was identified, e.g., scheduled inspection or observation by operating personnel.

4. The length of time after the incident was identified that the fly ash material handling operations or the stackers used to stockpile bottom ash and gypsum continued to operate before proper control measures were reestablished, and the estimated amount of material(s) handled during the incident.
5. A discussion of the probable cause of the incident and any preventive measures taken.
6. A discussion whether any applicable rules may have been violated during the incident, with supporting explanation and calculations as needed.

P. Pursuant to Construction Permit #20050015, the Permittee shall maintain records for all observations for visible emissions and opacity made in accordance with USEPA Method 22 or 9, respectively, for the units listed below that the Permittee conducts or that are conducted on its behest by individuals who are qualified to make such observations. For each occasion on which such observations are made, these records shall include: [T1]

I. The identity of the observer;

II. A description of the various observations that were made;

III. The observed opacity;

IV. Copies of the raw data sheets for the observations.

| Unit Description | Emission Unit ID |
|---|---|
| X-ray Sorter #1 | (EU102J) |
| | |
| Feed Conveyor to Sizing Screen | (EU102E) |
| Sizing Screen to Surge Bin | (EU102F) |
| Surge Bin to Vibrating Feeder | (EU102G) |
| | |
| Vibrating Feeder to X-ray Sorter | (EU102H) |
| Sizing Screen to Product Conveyor | (EU102I) |
| X-ray Sorter to Product Conveyor | (EU102L) |
| X-ray Sorter to Sorter Reject Conveyor | (EU102N) |
| | |
| Conveyor C-7 to Feed Conveyor | (EU102D) |
| Product Conveyor to C-7 or C-8 | (EU102M) |
| X-ray Sorter Reject Conveyor to Reject Transfer Conveyor | (EU102O) |
| Reject Transfer Conveyor to C-6 | (EU102P) |
| Conveyor from Reject C-6 to Refuse Bin and Refuse Bin to Truck | (EU107) |
| Unloading of reject material at the waste disposal facility | (EU4) |
| Landfill Haul Road (Mine waste and breaker reject material, water treatment waste, & transfer material) | (EU6) |

Note: Observations are conducted on discharge points, not each emission unit ID.

Q. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep records for each observation for opacity conducted in accordance with Method 9. These records shall include, at a minimum:

I. Date and time the observation was performed.

II. Name(s) of observing personnel.

III. Identification of which equipment and emission point(s) was observed.

IV. Whether or not the equipment was running properly.

V. The findings of the observation including the presence of any visible emissions.

VI. A description of any corrective action taken, including the time that the corrective actions were started.

**b. i. <u>Particulate Matter (PM) Requirements</u>**

A. Pursuant to 40 CFR 60.253(b)(1), the Permittee must not cause to be discharged into the atmosphere from the pneumatic coal-cleaning equipment (i.e., the X-ray sorting units) any gases that contain PM in excess of 0.023 g/dscm (0.010 gr/dscf).

B. Pursuant to 40 CFR 60.254(b)(2), the Permittee must not cause to be discharged into the atmosphere from any mechanical vent on a coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal (i.e., the sizing screens and conveying equipment built after April 28, 2008) gases which contain particulate matter in excess of 0.023 g/dscm (0.010 gr/dscf).

C. Pursuant to 40 CFR 60.672(a), the Limestone Handling/Processing Operations must meet the applicable stack emission limits and compliance requirements in 40 CFR 60 Subpart OOO Table 2. The requirements in 40 CFR 60 Subpart OOO Table 2 apply for Limestone Handling/Processing Operations with capture systems used to capture and transport particulate matter to a control device.

I. Pursuant to 40 CFR 60 Subpart OOO Table 2 Item 1, the Permittee must meet a PM limit of 0.05 g/dscm (0.022 gr/dscf).

D. Pursuant to 40 CFR 60.672(d), truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of 40 CFR 60.672.

E. Pursuant to 40 CFR 60.672(e), any transfer point on a Limestone Handling/Processing Operations conveyor belt or any other Limestone Handling/Processing Operation is enclosed in a building, then each enclosed Limestone Handling/Processing Operation must comply with the emission limits in 40 CFR 60.672(a) and (b), or the building enclosing the Limestone Handling/Processing Operations or the Limestone Handling/Processing Operations must comply with the following emission limits:

I. Pursuant to 40 CFR 60.672(e)(2), vents (as defined in 40 CFR 60.671) in the building must meet the applicable stack emission limits and compliance requirements in 40 CFR 60 Subpart OOO Table 2.

1. Pursuant to 40 CFR 60 Subpart OOO Table 2 Item 1, for the vents, the Permittee must meet a PM limit of 0.05 g/dscm (0.022 gr/dscf).

F. Pursuant to 35 IAC 212.321(a), the Permittee shall not cause or allow the emission of particulate matter into the atmosphere in any one-hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c). See Section 7.2(a).

G. Pursuant to Construction Permit #01100065, emissions of particulate matter from loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of coal, rock, limestone, and ash other than storage pile (EU1, EU2, EU14, EU16B, EU17, EU41B, EU44, EU45, EU48, EU49, EU50B, EU75A, EU75B, EU102, EU105, and EU107), shall be controlled with enclosures and aspiration to dust collectors or other filtration devices. These control devices shall be operated in accordance with good air pollution control practices to minimize emissions. [T1-BACT]

H. Pursuant to Construction Permit #01100065, outdoor coal piles shall be equipped and operated with adjustable stacker(s), rotary stacker(s), ladders or other comparable devices to minimize the distance that material drops when added to the pile and minimize the associated particulate matter emissions. [T1]

I. Pursuant to Construction Permit #01100065, emissions from the following units shall not exceed the following particulate matter emission limits and the limitations specified for units not controlled by a dust collector or filter that was assigned a designated particulate matter emission rate, in pounds/hour and tons/year, from the loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of coal, rock, limestone, and ash . For each category of unit (e.g., coal and limestone receiving and handling), the sum of these emission rates shall not exceed the totals within the following table for particulate matter emission limits for the category of unit: [T1]

| **Coal/Limestone Receiving and Handling and Coal Preparation** | | | |
|---|---|---|---|
| Emission Units | Emission Unit Designations | pounds/hour | tons/year |
| Conveyor Unloading, Transfer House, Crusher Building, Hoppers, etc., except as below | EU1, EU2, EU16B, EU41B, EU44, EU45, EU48, EU49, EU50B, EU102, EU105 | 0.479 | 2.10 |
| Limestone Reclaim | EU17 | 0.156 | 0.68 |
| Material Storage | EU40A, EU40B, EU40C, EU58, EU62, EU103 | 3.411 | 14.95 |
| Subtotal | | 4.046 | 17.73 |
| **Limestone Preparation** | | | |
| Emission Units | Emission Unit Designations | pounds/hour | tons/year |
| Preparation Equipment, Mill System and Bins | EU75A, EU75B | 0.002 | 0.01 |
| Subtotal | | 0.002 | 0.01 |

| **Waste and Ash Handling and Loadout** | | | |
|---|---|---|---|
| Emission Units | Emission Unit Designations | pounds/hour | tons/year |
| Bottom Ash Silos, Transport Systems, Fly Ash Silos, Waste Bin, Etc. | EU14, EU107 | 0.154 | 0.67 |
| Subtotal | | 0.154 | 0.67 |
| Total | | 4.202 | 18.4 |

J. Pursuant to Construction Permit #11080076, water spray systems shall be used as needed to maintain the moisture content of materials handled by the Waste Disposal Facility and control PM emissions from the Waste Disposal Facility operations. [T1]

K. Pursuant to Construction Permit #11080076, the Permittee shall control PM emissions from activities at the Waste Disposal Facility with the potential for fugitive emissions, including handling of waste and cover materials at the working zone of the disposal area, the wind erosion, and the Landfill Haul Roads (EP5, EP6, and EP9 ), in accordance with a written operating program, which program shall be kept current. [T1]

I. This program shall include a map or diagram indicating the location of the Waste Disposal Facility activities accompanied by a general description of each activity, its extent, and the expected level of activity.

II. This program shall include a detailed description of the emission control measures for each activity including:

1. Typical rate of water application.

2. The use of any additives with concentration.

3. The circumstances or frequency at which measures would be implemented.

4. Circumstances in which the measures would not be implemented.

III. This program shall include the intended level of control efficiency for PM and $PM_{10}$ emissions achieved by the control measures, with supporting documentation.

L. Pursuant to Construction Permit #11080076, the emissions of the Waste Disposal Facility shall not exceed the following limits. Compliance with these limits shall be determined using source-specific data and appropriate methodology from USEPA's Compilation of Air Pollutant Emission Factors, AP-42. [T1]

| Operations | PM | | $PM_{10}/PM_{2.5}$ | |
|---|---|---|---|---|
| | lbs/ton | tons/yr | lbs/ton | tons/yr |
| Material Unloading at the Transfer Area (EU7 & EU8) | 0.0001 | 0.12 | 0.00005 | 0.06 |
| Total | --- | 0.12 | --- | 0.06 |

Note: The lbs/ton limits reflect achievement of a nominal control efficiency of 90 percent compared to uncontrolled emission factors, based on the inherent moisture content of materials and operation of the water spray systems.

| Operations/Activities | PM (tons/year) | $PM_{10}/PM_{2.5}$ (tons/year) |
|---|---|---|
| Material Transfer and Mechanical and Truck Unloading & Loading at the Disposal Area & Transfer Area<br><br>(EU7 & EU8) | 0.12 | 0.06 |
| Landfill Haul Roads<br>Haul Road Vehicle Travel (Mine waste and breaker reject material, water treatment waste, & transfer material)<br><br>(EU6) | 12.33 | 2.47 |
| Handling of Cover Material, Placement of Materials & Wind Erosion at the Disposal Area and Placement of Material, Wind Erosion & Truck Loading at the Transfer Area<br><br>(EU5 & EU9) | 6.74 | 3.37 |
| Total | 19.19 | 5.90 |

M. Pursuant to Construction Permit #17020018, the emissions of CCR shall not exceed the following short term limits. Compliance with these limits shall be determined using source-specific data and appropriate methodology from USEPA's Compilation of Air Pollutant Emission Factors, AP-42, and USEPA's publication, "Control of Open Fugitive Dust Sources", EPA-450/3-88-008. [T1]

| Emission Unit(s) | | Emission Rate Limits (gr/acf) |
|---|---|---|
| Designation | Description | PM |
| **Fly Ash Handling Operations** | | |
| EU14D-3 & D-4 | Loadout from Existing Silos to Bulk Tanker Trucks, w/Filter | 0.0005 |
| EU14J | Transfer to Enclosed Bins, w/ Filter | 0.0005 |
| EU14K | | 0.0005 |
| EU14L | Transfer to Fly Ash Loadout Bins, w/ Filter | 0.0005 |
| EU14M | Fly Ash Loadout Spout Transfer to Railcar, w/ Filter | 0.0005 |

| Emission Unit(s) | | Emission Rate Limits (lb/ton) | | |
|---|---|---|---|---|
| Designation | Description | PM | $PM_{10}$ | $PM_{2.5}$ |

| **Stacker Operations for Bottom Ash and Gypsum** | | | | |
|---|---|---|---|---|
| EU7A | Bottom Ash Transfer to Pile | 0.000044 | 0.000022 | 0.000009 |
| EU7D | Gypsum Transfer to Pile | 0.000044 | 0.000022 | 0.000009 |

| Emission Unit(s) | | Emission Rate Limits (lb/ton) | | |
|---|---|---|---|---|
| Designation | Description | PM | $PM_{10}$ | $PM_{2.5}$ |
| **Storage Piles: Front-End Loader Transfer** | | | | |
| EU7A | Transfer to Bottom Ash Pile Working Area | 0.000044 | 0.000022 | 0.000009 |
| EU7D | Transfer to Gypsum Pile Working Area | 0.000044 | 0.000022 | 0.000009 |

| Emission Unit(s) | | Emission Rate Limits (lb/ton) | | |
|---|---|---|---|---|
| Designation | Description | PM | $PM_{10}$ | $PM_{2.5}$ |
| **Load Out of Bottom Ash and Gypsum** | | | | |
| EU7A | Bottom Ash Transfer to Trucks | 0.000044 | 0.000022 | 0.000009 |
| EU7D | Gypsum Transfer to Trucks | 0.000044 | 0.000022 | 0.000009 |

| Emission Unit(s) | | Emission Rate Limits (lb/acre-day) | | |
|---|---|---|---|---|
| Designation | Description | PM | $PM_{10}$ | $PM_{2.5}$ |
| **Storage Piles: Wind Erosion** | | | | |
| EU7A | Bottom Ash Pile | 1.00 | 0.50 | 0.20 |
| EU7D | Gypsum Pile | 16.19 | 8.09 | 3.24 |

| Emission Unit(s) | | Emission Rate Limits (lbs/VMT) | | |
|---|---|---|---|---|
| Designation | Description | PM | $PM_{10}$ | $PM_{2.5}$ |
| **CCR Haul Roads** | | | | |
| EU14H and EU7C | Fly Ash, Bottom Ash and Gypsum Truck Haul Roads | 0.236 | 0.047 | 0.012 |

N. Pursuant to Construction Permit #17020018, the emissions of CCR shall not exceed the following annual limits. Compliance with these limits shall be determined using source-specific data and appropriate methodology from USEPA's Compilation of Air Pollutant Emission Factors, AP-42, and USEPA's publication, "Control of Open Fugitive Dust Sources", EPA-450/3-88-008. [T1]

| Emission Unit(s) | | Annual Emissions Limits (tons/year) | | |
|---|---|---|---|---|
| Designation | Description | PM | $PM_{10}$ | $PM_{2.5}$ |
| **Fly Ash Handling Operations** | | | | |
| EU14D-3 & D-4 | Loadout from Existing Silos to Bulk Tanker Trucks, w/Filter | 0.045 | 0.045 | 0.045 |
| EU14J | Transfer to Enclosed Bins, w/ Filter | 0.023 | 0.023 | 0.023 |
| EU14K | | 0.023 | 0.023 | 0.023 |
| EU14L | Transfer to Fly Ash Loadout Bins, w/ Filter | 0.200 | 0.200 | 0.200 |
| EU14M | Fly Ash Loadout Spout Transfer to Railcar, w/ Filter | 0.053 | 0.053 | 0.053 |

| Emission Unit(s) | | Annual Emission Limits (tons/year) | | |
|---|---|---|---|---|
| Designation | Description | PM | $PM_{10}$ | $PM_{2.5}$ |
| **Stacker Operations for Bottom Ash and Gypsum** | | | | |
| EU7A | Bottom Ash Transfer to Pile | 0.308 | 0.154 | 0.062 |
| EU7D | Gypsum Transfer to Pile | 0.308 | 0.154 | 0.062 |

| Emission Unit(s) | | Annual Emission Limit (tons/year) | | |
|---|---|---|---|---|
| Designation | Description | PM | $PM_{10}$ | $PM_{2.5}$ |
| **Storage Piles: Front-End Loader Transfer** | | | | |
| EU7A | Transfer to Bottom Ash Pile Working Area | 0.308 | 0.154 | 0.062 |
| EU7D | Transfer to | 0.308 | 0.154 | 0.062 |

| | | | | |
|---|---|---|---|---|
| | Gypsum Pile Working Area | | | |

| Emission Unit(s) | | Annual Emission Limit (tons/year) | | |
|---|---|---|---|---|
| Designation | Description | PM | $PM_{10}$ | $PM_{2.5}$ |
| **Load Out of Bottom Ash and Gypsum** | | | | |
| EU7A | Bottom Ash Transfer to Trucks | 0.308 | 0.154 | 0.062 |
| EU7D | Gypsum Transfer to Trucks | 0.308 | 0.154 | 0.062 |

| Emission Unit(s) | | Annual Emission Limit (tons/year) | | |
|---|---|---|---|---|
| Designation | Description | PM | $PM_{10}$ | $PM_{2.5}$ |
| **Storage Piles: Wind Erosion** | | | | |
| EU7A | Bottom Ash Pile | 2.954 | 1.477 | 0.591 |
| EU7D | Gypsum Pile | 0.182 | 0.091 | 0.036 |

| Emission Unit(s) | | Annual Emission Limit (tons/year) | | |
|---|---|---|---|---|
| Designation | Description | PM | $PM_{10}$ | $PM_{2.5}$ |
| **CCR Haul Roads** | | | | |
| EU14H and EPC 7 | Fly Ash, Bottom Ash and Gypsum Truck Haul Roads | 13.01 | 2.60 | 0.64 |

| Emission Units | Annual Emission Limit (tons/year) | | |
|---|---|---|---|
| **Total for**: | PM | $PM_{10}$ | $PM_{2.5}$ |
| • Fly Ash Handling Operations<br>• Stacker Operations for Bottom Ash and Gypsum<br>• Storage Piles: Front-End Loader Transfer<br>• Load Out of Bottom Ash | 18.6 | 5.4 | 2.0 |

| | | | |
|---|---|---|---|
| and Gypsum<br>• Storage Piles: Wind Erosion<br>• CCR Haul Roads | | | |

O. Pursuant to Construction Permit #17020018, the Permittee shall control particulate emissions from handling of bottom ash and gypsum, including the stacker operations, the storage piles and loadout operations (EU7A and EU7D), in accordance with a written program, as follows, which program shall be kept current. For this purpose, the Permittee may either develop and maintain a separate program that only addresses for the handling of bottom ash and gypsum, including the stacker operations, the storage piles and loadout operations or address handling of bottom ash and gypsum, including the stacker operations, the storage piles and loadout operations (EU7A and EU7D) in an expanded program for the Waste Disposal Facility. [T1]

I. This program shall include a map or diagram indicating the location of activities accompanied by a general description of each activity, its extent, and the expected level of activity.

II. This program shall include a detailed description of the emission control measures for each activity including:

1. Typical rate of water application;

2. The use of any additives with concentration;

3. The circumstances or frequency at which measures would be implemented; and

4. Circumstances in which the measures would not be implemented.

III. This program shall include the intended level of control efficiency for PM, $PM_{10}$ and $PM_{2.5}$ emissions achieved by the control measures, with supporting documentation.

P. Pursuant to Construction Permit #17020018, the Permittee shall control particulate emissions from the CCR Haul Roads in accordance with a written program, as follows, which program shall be kept current. For this purpose, the Permittee may either develop and maintain a separate program for the CCR Truck Haul Roads or address the CCR Truck Haul Roads, as well as existing roadways that would be used by CCR Truck Haul Roads in an expanded program for the existing roadways at the source. [T1]

I. This program shall include a map or diagram indicating the location of the subject roadways, with description of the roadway (length, width and surface material) and the volume and nature of expected vehicle traffic.

II. This program shall include a detailed description of the emission control measures (e.g., vacuum truck, or water flushing) for the various roadways including:

1. Typical frequency;

2. Typical rate of water application;

3. The use of any additives with concentration;

4. The circumstances or frequency at which measures would be implemented; and

5. Circumstances in which the measures would not be implemented.

III. This program shall include the intended level of control efficiency for PM, $PM_{10}$ and $PM_{2.5}$ emissions achieved by the control measures, with supporting documentation.

Q. Pursuant to Construction Permit #20050015, the design PM emission rate of the filter dust collector for each of the following units shall not exceed 0.0005 grains/actual cubic foot: [T1]

I. Coal X-Ray Sorting Unit EU102J.

II. Material Sizing and Screening Units EU102E, EU102F, and EU102G.

III. Material Sorting Units EU102H, EU102I, EU102L, and EU102N.

IV. Unsorted Material Transfer Conveyor EU102D.

V. Transfer of product coal to the existing coal conveyors EU102M.

VI. Transfer of rejected material from x-ray sorting to the transfer conveyor EU102O.

R. Pursuant to Construction Permit #20050015, emissions of particulate from the following units shall not exceed the following limits: [T1]

| Unit | Limits | | | |
|---|---|---|---|---|
| | PM | | $PM_{10}/PM_{2.5}$ | |
| | Lb/hr | Ton/yr | Lb/hr | Ton/yr |
| Coal X-Ray Sorting Unit (EU102J) | 0.045 | 0.197 | 0.045 | 0.197 |
| Sizing Screens (EU102E) | 0.034 | 0.15 | 0.034 | 0.15 |
| Sizing Screens (EU102F) | 0.034 | 0.15 | 0.034 | 0.15 |
| Sizing Screens (EU102G) | 0.034 | 0.15 | 0.034 | 0.15 |
| Material Sorting (EU102H) | 0.045 | 0.197 | 0.045 | 0.197 |
| Material Sorting (EU102I) | 0.045 | 0.197 | 0.045 | 0.197 |

| | | | | |
|---|---|---|---|---|
| Material Sorting (EU102L) | 0.045 | 0.197 | 0.045 | 0.197 |
| Material Sorting (EU102N) | 0.045 | 0.197 | 0.045 | 0.197 |
| Material Transfer Conveyor (EU102D) | 0.009 | 0.038 | 0.009 | 0.038 |
| Transfer of product coal to the existing coal conveyors (EU102M) | 0.009 | 0.038 | 0.009 | 0.038 |
| Transfer of rejected material from x-ray sorting to the transfer conveyor. (EU102O) | 0.009 | 0.038 | 0.009 | 0.038 |
| Total | - | 1.75 | - | 1.75 |

ii. Compliance Method (PM Requirements)

Monitoring

A. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall implement and maintain the preventive maintenance program required by the CCA for A-2021-0039 for the X-Ray sorter and dust collector system including remote monitoring of key performance indicators.

Testing

B. Pursuant to 40 CFR 60.257(b), the Permittee must conduct all performance tests required by 40 CFR 60.8 to demonstrate compliance with the applicable emissions standards specified in 40 CFR 60.252 according to the requirements in 40 CFR 60.8 using the applicable test methods and procedures in 40 CFR 60.257(b)(1) through (8).

I. Pursuant to 40 CFR 60.257(b)(5), USEPA Method 5 or USEPA Method 17 shall be used to determine the PM concentration as follows:

1. Pursuant to 40 CFR 60.257(b)(5)(i), the sampling time and sample volume for each run shall be at least 60 minutes and 0.85 dscm (30 dscf). Sampling shall begin no less than 30 minutes after startup and shall terminate before shutdown procedures begin. A minimum of three valid test runs are needed to comprise a PM performance test.

2. Pursuant to 40 CFR 60.257(b)(5)(ii), USEPA Method 5 shall be used only to test emissions from affected facilities without wet flue gas desulfurization (FGD) systems (coal processing and conveying equipment (including breakers and crushers), and coal storage systems, transfer and loading systems without wet flue gas desulfurization (FGD) systems).

3. Pursuant to 40 CFR 60.257(b)(5)(v), USEPA Method 17 may be used at facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 8.1 and 11.1 of USEPA Method 5B may be used in USEPA Method 17 only if it is used after a wet FGD system. The Permittee may not use USEPA Method 17 after wet FGD systems if the effluent is saturated or laden with water droplets.

C. Pursuant to 40 CFR 60.675(b), the Permittee shall determine compliance with the PM standards in 40 CFR 60.672(a) as follows:

I. Pursuant to 40 CFR 60.675(b)(1), except as specified in 40 CFR 60.675(e)(3) and (4), USEPA Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For USEPA Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121°C (250°F), to prevent water condensation on the filter.

D. Pursuant to Construction Permit #01100065, the Permittee shall perform emission tests as requested by the Illinois EPA for the loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of coal, rock, limestone, and ash within 45 days of a written request by the Illinois EPA or such later date agreed to by the Illinois EPA. [T1]

E. Pursuant to Construction Permit #01100065, USEPA Method 5 or 17 shall be used for emission testing of particulate matter for the loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of rock, limestone, and ash subject to 40 CFR Part 60, Subpart OOO, as specified in 40 CFR 60.675 (EU17 and EU58). [T1]

I. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall test the emission units listed above for particulate matter using Method 5 or 17 prior to TBD.

II. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall test the emission units listed above for particulate matter using Method 5 or 17 every 5 years.

F. Pursuant to Construction Permit #01100065, USEPA Method 5 shall be used for emission testing of particulate matter from loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of coal constructed, reconstructed, or modified on or after April 28, 2008 and subject to 40 CFR 60, Subpart Y, as specified in 40 CFR 60.254. The sampling time and sample volume for each run shall be at least 60 minutes and 30 dscf. Sampling shall begin no less than 30 minutes after startup and shall terminate before shutdown procedures begin. [T1]

G. Pursuant to Construction Permit #20050015, for the Coal X-Ray Sorting Unit, the Permittee shall conduct testing for emissions of filterable $PM_{10}$ and $PM_{2.5}$ and condensable particulate. These

tests shall be conducted using applicable USEPA methods, including Methods 5, 201, 201A and 202. [T1]

I. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall test the Coal X-Ray Sorting Unit for emissions of filterable $PM_{10}$ and $PM_{2.5}$ and condensable particulate using Methods 5, 201, 201A, and 202, as applicable, prior to TBD.

II. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall test the Coal X-Ray Sorting Unit for emissions of filterable $PM_{10}$ and $PM_{2.5}$ and condensable particulate using Methods 5, 201, 201A, and 202, as applicable, every 5 years.

III. Pursuant to Construction Permit #20050015, for the Coal X-Ray Sorting Unit, unless testing for emissions of filterable $PM_{10}$ and $PM_{2.5}$ is specifically requested by the Illinois EPA, the Permittee need not conduct measurements for $PM_{10}$ and $PM_{2.5}$ if the Permittee considers all filterable PM measured by Method 5 to be filterable $PM_{10}$ and $PM_{2.5}$. In addition, separate measurements for filterable $PM_{2.5}$ need not be conducted if the Permittee considers all filterable $PM_{10}$ measured by Method 201 or 201A to be $PM_{2.5}$. [T1]

Note: See Sections 2.3 and 7.1 for additional testing requirements.

Recordkeeping

H. Pursuant to 35 IAC 204.1400(c), the Permittee shall keep records of the emissions of PM that are emitted by roadways and other emissions unit(s) identified in the record required by 35 IAC 204.1400(a)(2); and calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis for a period of 5 years following resumption of regular operations after the change, or for a period of 10 years following resumption of regular operations after the change if the project increases the design capacity or potential to emit that regulated NSR pollutant at such emissions unit.

I. Pursuant to Construction Permit #01100065, the Permittee shall maintain records of emissions of particulate matter based on operating data for the loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of coal, rock, limestone, and ash and appropriate emission factors, with supporting documentation and calculations. [T1]

J. Pursuant to Construction Permit #01100065, the Permittee shall maintain files, which shall be kept current, that contain: [T1]

I. 1. For the dust collectors or other filter devices associated with the loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of coal, rock, limestone, and ash, design specifications for each device (type of unit, maximum design exhaust flow (acfm or scfm), filter area, type of filter cleaning, performance guarantee for particulate exhaust loading in gr/scf, etc.), the manufacturer's recommended operating and maintenance procedures for the device, and design specification for the filter material in each device (type of material, surface treatment(s) applied to material, weight, performance guarantee, warranty provisions, etc.).

2. For each dust collector, the normal range of pressure drop across the device and the minimum and maximum safe pressure drop for the device, with supporting documentation.

II. For units that are not controlled with dust collectors or other filter devices (e.g., EU4, EU5, EU6, EU7, EU7A, EU7C, EU7D, EU8, EU9, EU14H, EU16B, EU40, EU41B, EU48, EU49, EU58, EU62, EU102A, B-1, B-2, C, P, EU103, EU104, EU105, EU107, EU118, and EU118A), a detailed description of the work practices used to control emissions of particulate matter.

1. The designated particulate matter emission rate, in pounds/hour and tons/year, from the loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of coal, rock, limestone, and ash that are not controlled with dust collectors or other filter devices with supporting calculations and documentation, including detailed documentation for the level of emissions control achieved through the work practices that are used to control particulate matter emissions..

K. Pursuant to Construction Permit #11080076, the Permittee shall keep the following records for emissions of PM and $PM_{10}$/$PM_{2.5}$ from the Waste Disposal Facility: [T1]

I. A file or other records, which shall be kept current, that contain:

1. The operating factors used to determine the amount of activity associated with the operations and activities as related to their emissions.

2. The factors used by the Permittee to determine emissions from the Waste Disposal Facility (pounds/ton for the affected operations and pounds/truck mile, pounds/ton of material and pounds/acre-day for the affected activities, as appropriate), with detailed documentation for the level of control achieved in practice by the applicable control measures, with supporting calculations.

3. The theoretical emissions of each activity (tons/year) at the maximum level of throughput or activity and typical levels of emissions control.

II. Records of the estimated vehicle miles traveled on the haul roads at the Waste Disposal Facility, including the Landfill Haul Roads segment, (miles/month), with supporting documentation and calculations.

III. Records of actual emissions (tons/month and tons/year) from the various operations and activities at the Waste Disposal Facility, based on relevant operating data and appropriate emission factors for such operation, with supporting calculations.

L. Pursuant to Construction Permit #11080076, the Permittee shall maintain the following records related to the control of emissions activities at the Waste Disposal Facility with the potential for fugitive emissions, including handling of waste and cover materials at the working zone of the disposal area, the wind erosion, and the Landfill Haul Roads (EP5, EP6, and EP9): [T1]

I. A copy of the written operating program.

II. Records generally confirming implementation of the written operating program for the handling of waste and cover materials at the working zone of the disposal area, the wind erosion and the haul road, including records for periods of time when control measures were implemented for each activity.

III. Detailed records for periods when additional control measures were used due to particular circumstances, including:

1. Date;

2. Description;

3. Explanation;

4. Expected duration of such circumstances.

IV. Detailed records for each incident when an activity (handling of waste and cover materials at the working zone of the disposal area, the wind erosion, or the Landfill Haul Roads) was conducted without appropriate control measures:

1. The date of the incident.

2. A description of the incident, including: the control measure that were not present or implemented; the control measures that were present, if any; other control measures or mitigation measures that were implemented, if any; and the magnitude of the PM emissions during the incident.

3. The time at and means by which the incident was identified, e.g., scheduled inspection or observation by operating personnel.

4. The length of time after the incident was identified that the activity continued to be conducted before proper control measures were reestablished, and the estimated amount of activity conducted during the incident.

5. A discussion of the probable cause of the incident and any preventive measures taken.

6. A discussion whether any applicable rules or conditions may have been violated during the incident, with supporting explanation and calculations as needed.

M. Pursuant to Construction Permit #17020018, the Permittee shall maintain records for the implementation of control measures for the particulate emissions from the handling of bottom ash and gypsum, including the stacker operations, the storage piles and loadout operations, including: [T1]

I. A copy of the program that addresses the handling of bottom ash and gypsum, including the stacker operations, the storage piles and loadout operations.

II. Records for the moisture content of the bottom ash and gypsum handled by the stacker operations, the storage piles and loadout operations (percent by weight).

III. Records generally confirming appropriate use of the water spray systems for the handling of bottom ash and gypsum, including the stacker operations, the storage piles and loadout operations.

IV. Detailed records for periods when additional control measures were used due to particular circumstances, including:

1. Date;

2. Description;

3. Explanation; and

4. Expected duration of such circumstances.

V. Detailed records for each incident when the stacker operations, the storage piles, or the loadout operations were operated without appropriate emission control measures:

1. The date of the incident.

2. A description of the incident, including: the control measure that were not present or implemented; the control measures that were present, if any; other control measures or mitigation measures that were implemented, if any; and the magnitude of the PM emissions during the incident.

3. The time at and means by which the incident was identified, e.g., scheduled inspection or observation by operating personnel.

4. The length of time after the incident was identified that the operation continued to operate before proper control measures were reestablished, and the estimated amount of material(s) handled during the incident.

5. A discussion of the probable cause of the incident and any preventive measures taken.

6. A discussion whether any applicable rules may have been violated during the incident, with supporting explanation and calculations as needed.

N. Pursuant to Construction Permit #17020018, the Permittee shall maintain the following records related to the control of emissions from the CCR Haul Roads: [T1]

I. A copy of the program for the CCR Haul Roads.

II. Records generally confirming implementation of the operating program, including records for periods of time when control measures were implemented for each activity.

III. Detailed records for periods when additional control measures were used due to particular circumstances, including:

1. Date;

2. Description;

3. Explanation; and

4. Expected duration of such circumstances.

IV. Detailed records for each incident appropriate control measures were not implemented:

1. The date of the incident.

2. A description of the incident, including:

aa. The control measure that was not present or implemented.

bb. The control measures that were present, if any.

cc. Other control measures or mitigation measures that were implemented, if any.

dd. The magnitude of the PM emissions during the incident.

3. The time at and means by which the incident was identified, e.g., observation by operating personnel.

4. The length of time after the incident was identified that the affected activity continued to be conducted before proper control measures were reestablished, and the estimated amount of activity conducted during the incident.

5. A discussion of the probable cause of the incident and any preventive measures taken.

6. A discussion whether any applicable rules may have been violated during the incident, with supporting explanation and calculations as needed.

O. Pursuant to Construction Permit #17020018, the Permittee shall keep the following records for emissions of PM, $PM_{10}$ and $PM_{2.5}$ from the CCR Handling and Load Out Facility: [T1]

I. A file or other records, which shall be kept current, that contain:

1. The operating factors used to determine the amount of activity associated with the CCR Handling and Load Out Facility and activities as related to their emissions.

2. The factors used by the Permittee to determine emissions from the CCR Handling and Load Out Facility (pounds/ton for the CCR Handling and Load Out Facility and pounds/truck mile, pounds/ton of material and pounds/day-acre for the Coal Combustion Residual Material Handling Operation Activities, as appropriate), with detailed documentation for the level of control achieved in practice by the applicable control measures, with supporting calculations.

3. The theoretical emissions of each Coal Combustion Residual Material Handling Operation (tons/year) at the maximum level of throughput or activity and typical levels of emissions control.

II. 1. Records of the estimated vehicle miles traveled on CCR Haul Roads by trucks, (miles/month), with supporting documentation and calculations.

2. Records of actual emissions (tons/month and tons/year) from the various operations and activities at CCR Handling and Load Out Facility, based on relevant operating data and appropriate emission factors for such operation, with supporting calculations.

P. Pursuant to Construction Permit #20050015, for handling of reject material during transfer (EU102P and EU107), the Permittee shall maintain a log or other records and for the operation of the water sprays that includes the following information. [T1]

I. Records for any periods during handling of reject material when the water sprays were not operated, with explanation.

II. The amount of water used in the water sprays (gallons/month).

Q. Pursuant to Construction Permit #20050015, for the following emission units, the Permittee shall keep records of PM, $PM_{10}$ and $PM_{2.5}$ emissions (tons/month and tons/year), with supporting calculations and documentation. [T1]

| Unit Description | Unit Emission Point |
|---|---|
| X-ray Sorter #1 | (EU102J) |
| Feed Conveyor to Sizing Screen | (EU102E) |
| Sizing Screen to Surge Bin | (EU102F) |
| Surge Bin to Vibrating Feeder | (EU102G) |
| Vibrating Feeder to X-ray Sorter | (EU102H) |
| Sizing Screen to Product Conveyor | (EU102I) |
| X-ray Sorter to Product Conveyor | (EU102L) |
| X-ray Sorter to Sorter Reject Conveyor | (EU102N) |
| Conveyor C-7 to Feed Conveyor | (EU102D) |
| Product Conveyor to C-7 or C-8 | (EU102M) |
| X-ray Sorter Reject Conveyor to Reject Transfer Conveyor | (EU102O) |

R. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of the following for each process emission unit. These records shall be updated when a change in operational conditions affects any of the following records. The records shall include the date of the most recent update.

I. The maximum process weight rate (tons/hr) or a statement that the maximum process weight rate is less than 0.05 tons/hr, with supporting calculations.

II. The allowable PM emission rate (lb/hr) given in 35 IAC 212.321 or 35 IAC 266.110 based on the maximum process weight rate, with supporting calculations. This calculates to be:

| Emission Unit | Description | Max Hourly PM Emissions (lb/hour) |
|---|---|---|
| EU104 | Mine Conveyor MC-1 to Mine Conveyor MC-2 | 0.006740 |
| EU118A | Mine Conveyor MC-2 to 6000 Ton Surge Pile | 0.135000 |
| EU105A | Mine Conveyor MC-3 to Screening Facility | 0.002360 |
| EU105B | Mine Conveyor MC-4 to Screening Facility | 0.002360 |
| EU105C | Screening Facility to Mine Conveyor MC-8 | 0.004040 |
| EU105D | Screening Facility to Rotary Breaker | 0.000842 |
| EU105E | Rotary Breaker to Mine Conveyor MC-7 | 0.000842 |
| EU105F | Rotary Breaker to Reject Conveyor 6 | 0.000079 |
| EU107A | Reject Conveyor 6 to Refuse Bin | 0.001580 |
| EU107B | Refuse Bin to Truck | 0.001580 |
| EU102A | Mine Conveyor MC-7 to 30,000 Ton Pile 1 | 0.016800 |
| EU102B-1 | Mine Conveyor MC-8 to 50,000 Ton Pile 2 | 0.004040 |
| EU102B-2 | Mine Conveyor MC-8 to Mine Conveyor MC-9 | 0.004040 |
| EU102C | Mine Conveyor MC-9 to 50,000 Ton Pile 3 | 0.080900 |
| EU102D | Mine Conveyor MC-7 to Feed Conveyor | 0.037500 |
| EU102E | Feed Conveyor to Sizing Screen | 0.150000 |
| EU102F | Sizing Screen to Surge Bin | 0.150000 |
| EU102G | Surge Bin to Vibrating Feeder | 0.150000 |
| EU102H | Vibrating Feeder to X-Ray Sorter | 0.197000 |
| EU102I | Sizing Screen to Product Conveyor | 0.197000 |
| EU102L | X-ray Sorter to Product Conveyor | 0.197000 |
| EU102M | Product Conveyor to Mine Conveyor MC-7 / Mine Conveyor MC-8 | 0.037500 |
| EU102N | X-ray Sorter to Sorter Reject Conveyor | 0.197000 |
| EU102O | X-ray Sorter to Reject Transfer Conveyor | 0.037500 |
| EU102P | Reject Transfer Conveyor to Reject Conveyor 6 | 0.004270 |

| | | |
|---|---|---|
| EU16B | Mine Conveyor 11 to Conveyor C-1 | 0.004380 |
| EU44/45-1 | Conveyor C-1 to Conveyor C-2 | 0.004380 |
| EU44/45-2, 3, 4 | Conveyor C-1 or C-4A/B to Surge Bin | 0.004380 |
| EU44/45-5, 6 | Surge Bin to Belt Feeder A or B | 0.003370 |
| EU44/45-7, 8 | Belt Feeder A or B to Screen A or B | 0.003370 |
| EU44/45-9, 10 | Screen A or B Grizzly to Crusher A or B | 0.003370 |
| EU44/45-11, 12 | Screen A or B Grizzly to Conveyor C-5A or C-5B | 0.003370 |
| EU44/45-13, 14 | Granulator Crusher A or B to Conveyor C-5A or C-5B | 0.003370 |
| EU49A | Conveyor C-2 to Coal Pile B | 0.004380 |
| EU49B | Conveyor C-2 to Conveyor C-3 | 0.004380 |
| EU48 | Conveyor 3 to Coal Pile A | 0.087600 |
| EU41B1 | Storage Coal Piles (A&B) to Stamler Feeder | 0.067400 |
| EU41B2 | Stamler Feeder to Conveyor C-4A | 0.067400 |
| EU1/50B-1, 2 | Conveyor C-5A or C5-B to Conveyor C-6A or C-6B | 0.003370 |
| EU1/50B-3, 4 | Conveyor C-6A or C-6B to Unit 1 | 0.003370 |
| EU2-1, 2 | Conveyor C-6A or C-6B to Unit 2 | 0.003370 |
| EU17 | Rail Car to Unloading Hopper | 0.027100 |
| EU58 | Conveyor LS-1 to Limestone Storage Pile | 0.027100 |
| EU75A | Diverter Gate A or B to Limestone Day Bin A | 0.010800 |
| EU75B | Diverter Gate A or B to Limestone Day Bin B | 0.010800 |
| EU14A | Unit #1 to Unit #1 Fly Ash Storage Silos | 0.290000 |
| EU14B | Unit #2 to Unit #2 Fly Ash Storage Silos | 0.290000 |
| EU15A1 | Unit 1 Hydrated Lime Silo A | 0.044500 |
| EU15A2 | Unit 1 Hydrated Lime Silo B | 0.044500 |
| EU15A3 | Unit 2 Hydrated Lime Silo A | 0.044500 |
| EU15A4 | Unit 2 Hydrated Lime Silo B | 0.044500 |
| EU15B1 | Unit 1 Hydrated Lime Silo C | 0.009220 |
| EU15B2 | Unit 2 Hydrated Lime Silo C | 0.009220 |
| EU7A | Bottom Ash Transfer to Pile | 0.470000 |
| EU7A | Front End Loader to Bottom Ash Pile Working Area | 0.470000 |
| EU7A | Bottom Ash Transfer to Trucks | 0.470000 |
| EU7D | Gypsum Transfer to Pile | 0.470000 |
| EU7D | Front End Loader to Gypsum Pile Working Area | 0.470000 |
| EU7D | Gypsum Transfer to Trucks | 0.470000 |

| | | |
|---|---|---|
| EU7 | Conveyor Belt 1 to Transfer Area Stacker | 0.047200 |
| EU8 | Transfer Area Stacker to Transfer Area Stackout Pile | 0.047200 |

III. The maximum hourly PM emission rate (lbs/hr), with supporting calculations.

S. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records demonstrating that:

I. Outdoor coal piles are equipped and operated with adjustable stacker(s), rotary stacker(s), ladders or other comparable devices to minimize the distance that material drops when added to the pile and minimize the associated particulate matter emissions.

II. The design PM emission rate of the filter dust collector for each of the following units does not exceed 0.0005 grains/actual cubic foot:

1. Coal X-Ray Sorting Unit EU102J.

2. Material Sizing and Screening units EU102E, EU102F, and EU102G.

3. Material Sorting Units EU102H, EU102I, EU102L, and EU102N.

4. Unsorted Material Transfer Conveyor EU102D.

5. Transfer of product coal to the existing coal conveyors EU102M.

6. Transfer of rejected material from x-ray sorting to the transfer conveyor EU102O.

T. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of the implementation of the preventive maintenance program and the maintenance of the preventive maintenance program required by the CCA for A-2021-0039 for the X-Ray sorter and dust collector system including remote monitoring of key performance indicators.

**c. i. <u>Operational and Production Requirements</u>**

A. Pursuant to Construction Permit #11080076, the amounts of material disposed of at the Waste Disposal Facility shall not exceed the following limits. Compliance with these limits shall be determined from a running total of 12 months of data (i.e., from the sum of the data for a month and the preceding 11 months). [T1]

I. Total amount of material (i.e., material transferred by the conveyor system or by truck): 600,000 tons/month and 5,000,000 tons/year.

II. Material transferred by truck: 600,000 tons/month and 5,000,000 tons/year.

III. Material handled by the transfer area: 310,000 tons/month and 3,800,000 tons/year.

B. Pursuant to Construction Permit #11080076, the amount of travel on the Landfill Haul Roads at the Waste Disposal Facility, including the new paved haul road segment, by transport trucks for waste materials shall not exceed 25,000 miles/month and 200,000 miles/year. [T1]

C. Pursuant to Construction Permit #17020018, the amounts of materials shipped out by the CCR Handling and Load Out Facility shall not exceed the following limits: [T1]

| **Material** | **tons/month** | **tons/year** |
|---|---|---|
| Fly Ash | 279,000 | 1,500,000 |
| Bottom Ash | 50,000 | 500,000 |
| Gypsum Material | 200,000 | 2,000,000 |

Compliance with these limits shall be determined from a running total of 12 months of data (i.e., from the sum of the data for a month and the preceding 11 months).

D. Pursuant to Construction Permit #17020018, the amount of travel on the CCR Haul Roads by trucks that transport materials from the CCR Handling and Load Out Facility shall not exceed 45,833 miles/month and 110,000 miles/year. Compliance with the annual limit shall be determined from a running total of 12 months of data (i.e., from the sum of the data for a month and the preceding 11 months). [T1]

E. Pursuant to Construction Permit #17020018: [T1]

I. The Permittee shall maintain and repair the water spray systems at the CCR Handling and Load Out Facility to assure that the systems function properly when needed.

II. Maintenance and repair of enclosures, filters and other control measures shall be performed to assure that such measures function properly when material is being handled.

F. Pursuant to Construction Permit #20050015, the amount of material fed to the sizing screens (EU102E, EU102F, and EU102G) shall not exceed 2.8 million tons/year, total. [T1]

G. Pursuant to Construction Permit #20050015: [T1]

I. Trucks transporting reject material from the reject material bin to the onsite waste disposal facility and returning from this facility to this bin shall travel on paved roads.

II. The Permittee shall carry out control measures for fugitive dust emission from the roads used by truck transporting reject material in accordance with a written Fugitive Particulate Operating Program for Subject Roadways (Roadways Program) developed and maintained by the Permittee.

1. The Roadways Program shall set forth the measures that will be used to reduce fugitive emissions from these roads. This Roadways Program shall include:

aa. Detailed descriptions of the emissions control technique(s) (e.g., watering or sweeping) that will routinely be implemented, including frequency.

bb. Specific triggers for implementation of additional control, e.g., observation of prolonged dust plumes following passage of vehicles.

cc. The estimated effectiveness of the control measures in reducing particulate emissions, with supporting calculations and analysis.

2. If the Illinois EPA notifies the Permittee of a potential deficiency in the Roadways Program, the Permittee shall submit a reply to the Illinois EPA within 15 days of receipt of the notice of potential deficiency. This reply shall include information responding to the Illinois EPA's notice and/or a revised or amended Roadways Program to address the potential deficiency.

ii. Compliance Method (Operational and Production Requirements)

Monitoring

A. Pursuant to Construction Permit #01100065, the Permittee shall operate and maintain systems to measure the pressure drop across each dust collector used to control loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of coal, rock, limestone, and ash. [T1]

Note: This requirement does not apply to bin vent filters and other similar filtration devices.

B. Pursuant to Construction Permit #17020018, the Permittee shall conduct inspections of the various CCR Handling and Load Out Facility, including associated water spray systems, at least once per month when materials are being handled or activities are occurring. [T1]

Recordkeeping

C. Pursuant to 35 IAC 204.1400(a), the Permittee shall maintain documents and records of the following information:

I. A description of the Coal X-Ray Sorter System project;

II. Identification of the emissions units whose PM emissions could be affected by the Coal X-Ray Sorter System project; and

III. A description of the applicability test used to determine that the Coal X-Ray Sorter System project is not a major modification for PM emissions, including the baseline actual emissions, the projected actual emissions, the amount of emissions excluded under 35 IAC 204.600(b)(3), an explanation for why such amount was excluded, and any netting calculations, if applicable.

D. Pursuant to Construction Permit #01100065, the Permittee shall maintain the records of the pressure drop measurements across each dust collector and records of maintenance and operational activity associated with the systems. [T1]

E. Pursuant to Construction Permit #01100065, the Permittee shall keep records for the amount of bulk materials received by or shipped from the source by category or type of material (tons/month). [T1]

F. Pursuant to Construction Permit #01100065, the Permittee shall record any period during which a unit was in operation when its dust collector was not in operation or was not operating properly, as follows: [T1]

I. Each period when the measured pressure drop of a dust collector deviated outside the levels set as good air pollution control practices (date, duration and description of the event).

II. Each period when a dust collector failed to operate properly, which records shall include at least the following information:

1. The date, time and estimated duration of the event.

2. A description of the event.

3. The manner in which the event was identified, if not readily apparent.

4. The probable cause for deviation, if known, including a description of any equipment malfunction/breakdown associated with the event.

5. Information on the magnitude of the deviation, including actual emissions or performance in terms of the applicable standard if measured or readily estimated.

6. Confirmation that standard procedures were followed, or a description of any event-specific corrective actions taken.

7. A description of any preventative measures taken to prevent future occurrences, if appropriate.

G. Pursuant to Construction Permit #11080076, the Permittee shall maintain the following records for the amounts of waste materials handled by the Waste Disposal Facility (tons/month and tons/year):

I. Total amounts of material handled, by category of material.

II. Amounts of materials transported by truck, by category of material.

III. Amounts of material handled at the transfer area.

H. Pursuant to Construction Permit #11080076, the Permittee shall maintain records for operation of the water spray systems and implementation of other control measures for the Waste Disposal Facility operations, including: [T1]

I. Records for the moisture content of the various materials handled by the Waste Disposal Facility operations (percent by weight).

II. Records generally confirming appropriate use of the water spray systems and other control measures for each Waste Disposal Facility operation.

III. Detailed records for periods when additional control measures were used due to particular circumstances, including:

1. Date;

2. Description;

3. Explanation;

4. Expected duration of such circumstances.

IV. Detailed records for each incident when a Waste Disposal Facility operation was operated without appropriate emission control measures:

1. The date of the incident.

2. A description of the incident, including:

aa. The control measures that were not present or implemented.

bb. The control measures that were present, if any.

cc. Other control measures or mitigation measures that were implemented, if any.

dd. The magnitude of the PM emissions during the incident.

3. The time at and means by which the incident was identified, e.g., scheduled inspection or observation by operating personnel.

4. The length of time after the incident was identified that the Waste Disposal Facility operation continued to operate before proper control measures were reestablished, and the estimated amount of material(s) handled during the incident.

5. A discussion of the probable cause of the incident and any preventive measures taken.

6. A discussion whether any applicable rules or conditions may have been violated during the incident, with supporting explanation and calculations as needed.

I. Pursuant to Construction Permit #17020018, the Permittee shall keep records for the inspections of the various CCR Handling and Load Out Facility, including associated water spray systems, that shall, at a minimum, contain the following information: [T1]

I. Date and time the inspection was performed and names(s) of inspection personnel.

II. The observed condition of control measures for the inspected operations, including confirmation of proper functioning and identification of any defects (e.g., inadequate water supply, damaged spray nozzles, or inadequate flow).

III. The presence of visible emissions, as determined in accordance with USEPA Method 22 with observations for each operation or activity for at least one minute.

IV. A description of any maintenance or repair associated with control measures that are recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether action has been taken, is yet to be taken, or is no longer needed.

J. Pursuant to Construction Permit #17020018, the Permittee shall maintain records for its maintenance and repair activity for the water spray systems at the CCR Handling and Load Out Facility. [T1]

K. Pursuant to Construction Permit #17020018, the Permittee shall maintain the following records for the amounts of material handled by the CCR Handling and Load Out Facility (tons/month and tons/year): [T1]

I. Total amounts of material handled, by type of material.

II. Amounts of fly ash shipped by truck, shipped by truck with transfer to railcar, and shipped directly by railcar.

III. Amounts of bottom ash and gypsum shipped from the contingency stockpile area of the waste disposal facility and from the designated area in an active cell.

L. Pursuant to Construction Permit #17020018, the Permittee shall maintain a file containing the following items for the filters for the fly ash handling operations: [T1]

I. The maximum design particulate matter emissions of the filters, in gr/acf, with supporting documentation.

II. The manufacturer's recommended operating and maintenance procedures for the filters.

M. Pursuant to Construction Permit #20050015, the Permittee shall maintain records for the amounts of material fed to the sizing screen (EU102E, EU102F, and EU102G) (tons/month and tons/year). [T1]

N. Pursuant to Construction Permit #20050015, for the filter dust collectors for the units listed below, the Permittee shall maintain the following records: [T1]

| Designation | Description | Control Equipment/ Control Measures |
|---|---|---|
| EU102D | Conveyor C-7 to Feed Conveyor | Filter |
| EU102E, F & G | Feed Conveyor to Sizing Screen, Sizing Screen to Surge Bin, and Surge Bin to Vibrating Feeder | Filters |
| EU102H, I, L & N | Vibrating Feeder to X-ray Sorter, Sizing Screen to Product Conveyor, X-ray Sorter to Product Conveyor, and X-ray Sorter to Sorter Reject Conveyor. | Filters |

| | | |
|---|---|---|
| EU102J & K | X-ray Sorter #1 | Filters |
| EU102M | Product Conveyor to C-7 or C-8 | Filter |
| EU102O | X-ray Sorter Reject Conveyor to Reject Transfer Conveyor | Filter |

I. A file with documentation for the capacity and performance of this device and a copy of the manufacturer's recommended operation and maintenance procedures.

II. Records confirming the routine operation of the device for the x-ray sorters.

III. A maintenance and repair log or other records addressing inspections, maintenance and repair of these devices.

O. Pursuant to Construction Permit #20050015, the Permittee shall maintain the following records related to the implementation of the Roadways Program: [T1]

I. Records documenting implementation of the Roadways Program.

II. Records identifying periods when provisions of the Roadways Program that would otherwise have been required were not needed due to meteorological conditions (e.g., precipitation or temperatures near or below freezing) with documentation for the relevant meteorological conditions.

III. Detailed records for incidents or periods when provision(s) of the Roadways Program were not implemented, with description and explanation.

P. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records for operation of the water spray systems and implementation of other control measures for the coal handling operations at the mine facility and the transfer belt between the mine facility and the power plant facility, including:

I. Records for the moisture content of the coal (percent by weight).

II. Records generally confirming appropriate use of the water spray systems and other control measures for each coal handling operation at the mine facility and the transfer belt between the mine facility and the power plant facility.

III. Detailed records for periods when additional control measures were used due to particular circumstances, including:

1. Date;

2. Description;

3. Explanation;

4. Expected duration of such circumstances.

IV. Detailed records for each incident when coal handling operations at the mine facility or the transfer belt between the mine facility and the power plant facility was operated without appropriate emission control measures:

1. The date of the incident.

2. A description of the incident, including:

   aa. The control measures that were not present or implemented.

   bb. The control measures that were present, if any.

   cc. Other control measures or mitigation measures that were implemented, if any.

   dd. The magnitude of the PM and opacity emissions during the incident.

3. The time at and means by which the incident was identified, e.g., scheduled inspection or observation by operating personnel.

4. The length of time after the incident was identified that the coal handling operations at the mine facility and the transfer belt between the mine facility and the power plant facility continued to operate before proper control measures were reestablished, and the estimated amount of coal handled during the incident.

5. A discussion of the probable cause of the incident and any preventive measures taken.

6. A discussion whether any applicable rules or conditions may have been violated during the incident, with supporting explanation and calculations as needed.

Q. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of the amount of travel (miles/month and miles/year) on the Landfill Haul Roads at the Waste Disposal Facility, including the new paved haul road segment, by transport trucks for waste materials.

R. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of the amount of travel (miles/month and miles/year) on the CCR Haul Roads by trucks that transport materials from the CCR Handling and Load Out Facility.

**d. i. <u>Work Practice Requirements</u>**

A. Pursuant to Construction Permit #08010051, at all times, the Permittee shall, to the extent practicable, maintain and operate the limestone material handling facilities in a manner consistent with good air pollution control practice for minimizing emissions from the boilers and the source. [T1]

B. Pursuant to Construction Permit #11080076, the Waste Disposal Facility, including associated emission control measures, shall be operated and maintained in accordance with good air pollution control practices to minimize PM emissions. [T1]

C. Pursuant to Construction Permit #11080076, the Permittee shall maintain and repair the water spray systems at the Waste Disposal Facility to assure that the systems function properly when needed. [T1]

D. Pursuant to Construction Permit #20050015, the Permittee shall operate and maintain the following units, including associated control measures, in accordance with good air pollution control practice to minimize particulate emissions. [T1]

| Unit Description | Unit Emission Point ID |
|---|---|
| X-ray Sorter #1 | (EU102J) |
| Feed Conveyor to Sizing Screen | (EU102E) |
| Sizing Screen to Surge Bin | (EU102F) |
| Surge Bin to Vibrating Feeder | (EU102G) |
| Vibrating Feeder to X-ray Sorter | (EU102H) |
| Sizing Screen to Product Conveyor | (EU102I) |
| X-ray Sorter to Product Conveyor | (EU102L) |
| X-ray Sorter to Sorter Reject Conveyor | (EUP102N) |
| Conveyor C-7 to Feed Conveyor | (EU102D) |
| Product Conveyor to C-7 or C-8 | (EU102M) |
| X-ray Sorter Reject Conveyor to Reject Transfer Conveyor | (EU102O) |
| Reject Transfer Conveyor to C-6 | (EU102P) |
| RC-6 to Refuse Bin and Refuse Bin to Truck | (EU107A and EU107B) |
| Unloading of reject material at the waste disposal facility. | (EU4) |
| Landfill Haul Road (Mine waste and breaker reject material, water treatment waste, & transfer material) | (EU6) |

ii. Compliance Method (Work Practice Requirements)

Monitoring

A. Pursuant to Construction Permit #11080076, the Permittee shall conduct inspections of the various operations and activities at the Waste Disposal Facility, including associated water spray systems, at least once per month when materials are being handled or activities are occurring. [T1]

I. Pursuant to Section 39.5(7)(b) of the Act, the monthly inspections of the Waste Disposal Facility shall include at a minimum:

1. Checking sprayers for corrosion and build up that would affect the water spray pattern.

2. Verifying that all electronic systems that aid in minimizing opacity and PM emissions are clean and functioning as intended.

3. All of the manufacture recommendations for inspection and maintenance.

B. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall perform the following inspections of the stackers and maintain the stackers in a manner to minimize the distance that materials fall and minimize visible emission.

I. Weekly visual inspection for any leaks, general cleanliness, and verify all necessary components are intact and functioning. The Permittee shall remove any excess accumulations.

II. Monthly inspection to check on component wear and tear and to ensure proper functionality.

Recordkeeping

C. Pursuant to Construction Permit #01100065, the Permittee shall keep inspection and maintenance logs for each control device associated with loading, receiving, transfer, handling, storage, and processing or preparation (crushing, etc.) operations of coal, rock, limestone, and ash. [T1]

D. Pursuant to Construction Permit #11080076, the Permittee shall maintain records for its maintenance and repair activity for water spray systems at the Waste Disposal Facility. [T1]

E. Pursuant to Construction Permit #11080076, the Permittee shall keep records of the monthly inspections of the various operations and activities at the Waste Disposal Facility, including associated water spray systems that shall, at a minimum, contain the following information: [T1]

I. Date and time the inspection was performed and names(s) of inspection personnel.

II. The observed condition of control measures for the inspected operations, including confirmation of proper functioning and identification of any defects (e.g., inadequate water supply, damaged spray nozzles, or inadequate flow).

III. The presence of visible emissions, as determined in accordance with USEPA Method 22.

IV. A description of any maintenance or repair associated with control measures that are recommended as a result of the inspection and a review of outstanding recommendations for maintenance or repair from previous inspection(s), i.e., whether action has been taken, is yet to be taken, or is no longer needed.

F. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records for the operations of the stackers and what measures were used to verify that the stackers were operated in a manner to minimize the distance that materials fall and minimize visible emission.

**e. i. Mandatory Greenhouse Gas Reporting Requirements – 40 CFR 98 Subpart FF**

A. Pursuant to 40 CFR 98.323(a), for each ventilation shaft, vent hole, or centralized point into which $CH_4$ from multiple shafts and/or vent holes are collected, the Permittee must calculate the quarterly $CH_4$ liberated from the ventilation system using Equation FF-1. The Permittee must measure $CH_4$ content, flow rate, temperature, pressure, and moisture content of the gas using the procedures outlined in 40 CFR 98.324.

$$CH_{4V} = n * \left( V * MCF * \frac{C}{100\%} * 0.0423 * \frac{520°R}{T} * \frac{P}{1\ atm} * 1,440 * \frac{0.454}{1,000} \right) \quad \text{(Eq. FF-1)}$$

Where:

$CH_4V$ = Quarterly $CH_4$ liberated from a ventilation monitoring point (metric tons $CH_4$).

V= Volumetric flow rate for the quarter (acfm) based on sampling or a flow rate meter. If a flow rate meter is used and the meter automatically corrects to standard temperature and pressure, then use scfm and replace "520°R/T × P/1 atm" with "1".

MCF = Moisture correction factor for the measurement period, volumetric basis.

= 1 when V and C are measured on a dry basis or if both are measured on a wet basis.

= 1-(fH2O) when V is measured on a wet basis and C is measured on a dry basis.

= 1/[1-(fH2O)] when V is measured on a dry basis and C is measured on a wet basis.

($fH_2O$) = Moisture content of the $CH_4$ emitted during the measurement period, volumetric basis (cubic feet water per cubic feet emitted gas).

C = $CH_4$ concentration of ventilation gas for the quarter (%).

n = The number of days in the quarter where active ventilation of mining operations is taking place at the monitoring point. To obtain the number of days in the quarter, divide the total number of hours in the quarter where active ventilation is taking place by 24 hours per day.

0.0423 = Density of $CH_4$ at 520 °R (60 °F) and 1 atm (lb/scf).

520 °R = 520 degrees Rankine.

T = Temperature at which flow is measured (°R) for the quarter.

P = Absolute pressure at which flow is measured (atm) for the quarter. The annual average barometric pressure from the nearest NOAA weather service station may be used as a default.

1,440 = Conversion factor (min/day).

0.454/1,000 = Conversion factor (metric ton/lb).

I. Pursuant to 40 CFR 98.323(a)(1), the quarterly periods are:

1. January 1-March 31.

2. April 1-June 30.

3. July 1-September 30.

4. October 1-December 31.

II. Pursuant to 40 CFR 98.323(a)(2), values of V, C, T, P, and, if applicable, ($fH_2O$), must be based on measurements taken at least once each quarter with no fewer than 6 weeks between measurements. If measurements are taken more frequently than once per quarter, then use the average value for all measurements taken. If continuous measurements are taken, then use the average value over the time period of continuous monitoring.

III. Pursuant to 40 CFR 98.323(a)(3), if a facility has more than one monitoring point, the facility must calculate total $CH_4$ liberated from ventilation systems (CH4VTotal) as the sum of the $CH_4$ from all ventilation monitoring points in the mine, as follows:

$$CH_{4VTotal} = \sum_{i=1}^{m} (CH_{4V})_i \qquad \text{(Eq. FF-2)}$$

Where:

$CH_4VTotal$ = Total quarterly $CH_4$ liberated from ventilation systems (metric tons $CH_4$).

$CH_4V$ = Quarterly $CH_4$ liberated from each ventilation monitoring point (metric tons CH4).

m = Number of ventilation monitoring points.

B. Pursuant to 40 CFR 98.323(b), for each monitoring point in the degasification system (this could be at each degasification well and/or vent hole, or at more centralized points into which $CH_4$ from multiple wells and/or vent holes are collected), the Permittee must calculate the weekly $CH_4$ liberated from the mine using $CH_4$ measured weekly or more frequently (including by CEMS) according to 40 CFR 98.234(c), $CH_4$ content, flow rate, temperature, pressure, and moisture content, and Equation FF-3.

$$CH_{4D} = \sum_{i=1}^{n} \left( V_i * MCF_i * \frac{C_i}{100\%} * 0.0423 \frac{520^\circ R}{T_i} * \frac{P_i}{1\,atm} * 1{,}440 * \frac{0.454}{1{,}000} \right) \qquad \text{(Eq. FF-3)}$$

Where:

$CH_4D$ = Weekly $CH_4$ liberated from the monitoring point (metric tons $CH_4$).

Vi = Measured volumetric flow rate for the days in the week when the degasification system is in operation at that monitoring point, based on sampling or a flow rate meter (acfm). If a flow rate meter is used and

the meter automatically corrects to standard temperature and pressure, then use scfm and replace "520°R/Ti × Pi/1 atm" with "1".

MCFi = Moisture correction factor for the measurement period, volumetric basis.

= 1 when Vi and Ci are measured on a dry basis or if both are measured on a wet basis.

= 1−(fH2O)i when Vi is measured on a wet basis and Ci is measured on a dry basis.

= 1/[1−(fH2O)i] when Vi is measured on a dry basis and Ci is measured on a wet basis.

($fH_2O$) = Moisture content of the $CH_4$ emitted during the measurement period, volumetric basis (cubic feet water per cubic feet emitted gas).

Ci = $CH_4$ concentration of gas for the days in the week when the degasification system is in operation at that monitoring point (%).

n = The number of days in the week that the system is operational at that measurement point. To obtain the number of days in the week, divide the total number of hours that the system is operational by 24 hours per day.

0.0423 = Density of $CH_4$ at 520 °R (60 °F) and 1 atm (lb/scf).

520 °R = 520 degrees Rankine.

Ti = Temperature at which flow is measured (°R).

Pi = Absolute pressure at which flow is measured (atm).

1,440 = Conversion factor (minutes/day).

0.454/1,000 = Conversion factor (metric ton/lb).

I. Pursuant to 40 CFR 98.323(b)(1), values for V, C, T, P, and, if applicable, (fH2O), must be based on measurements taken at least once each calendar week with at least 3 days between measurements. If measurements are taken more frequently than once per week, then use the average value for all measurements taken that week. If continuous measurements are taken, then use the average values over the time period of continuous monitoring when the continuous monitoring equipment is properly functioning.

II. Pursuant to 40 CFR 98.323(b)(2), quarterly total $CH_4$ liberated from degasification systems for the mine must be determined as the sum of $CH_4$ liberated determined at each of the monitoring points in the mine, summed over the number of weeks in the quarter, as follows:

$$CH_{4DTotal} = \sum_{i=1}^{m} \sum_{j=1}^{w} (CH_4D)_{i,j} \qquad \text{(Eq. FF-4)}$$

Where:

$CH_4DTotal$ = Quarterly $CH_4$ liberated from all degasification monitoring points (metric tons $CH_4$).

$(CH_4D)i,j$ = Weekly $CH_4$ liberated from a degasification monitoring point (metric tons $CH_4$).

m = Number of monitoring points.

w = Number of weeks in the quarter during which the degasification system is operated.

C. Pursuant to 40 CFR 98.323(c), if gas from a degasification system or ventilation system is sold, used onsite, or otherwise destroyed (including by flaring or VAM oxidation), the Permittee must calculate the quarterly $CH_4$ destroyed for each destruction device and each point of offsite transport to a destruction device, using Equation FF-5. The Permittee must measure $CH_4$ content and flow rate according to the provisions in 40 CFR 98.324, and calculate the methane routed to the destruction device ($CH_4$) using either Equation FF-1 or Equation FF-4, as applicable.

$$CH_{4Destroyed} = CH_4 \times DE \qquad \text{(Eq. FF-5)}$$

Where:

$CH_4Destroyed$ = Quarterly $CH_4$ destroyed (metric tons).

$CH_4$ = Quarterly $CH_4$ routed to the destruction device or offsite transfer point (metric tons).

DE = Destruction efficiency (lesser of manufacturer's specified destruction efficiency and 0.99). If the gas is transported off-site for destruction, use DE = 1.

I. Pursuant to 40 CFR 98.323(c)(1), calculate total $CH_4$ destroyed as the sum of the methane destroyed at all destruction devices (onsite and offsite), using Equation FF-6.

$$CH_{4\,Destroyed\ Total} = \sum_{i=1}^{d} \left(CH_{4\,Destroyed}\right)_i \qquad \text{(Eq. FF-6)}$$

Where:

$CH_4DestroyedTotal$ = Quarterly total $CH_4$ destroyed at the mine (metric tons $CH_4$).

| | |
|---|---|
| $CH_4Destroyed$ = | Quarterly $CH_4$ destroyed from each destruction device or offsite transfer point. |
| d = | Number of onsite destruction devices and points of offsite transport. |

D. Pursuant to 40 CFR 98.323(d), the Permittee must calculate the quarterly measured net $CH_4$ emissions to the atmosphere using Equation FF-7.

$$CH_4 \text{ emitted (net)} = CH_{4\,VTotal} + CH_{4\,DTotal} - CH_{4\,DestroyedTotal} \qquad \text{(Eq. FF-7)}$$

Where:

| | |
|---|---|
| $CH_4$ emitted (net)= | Quarterly $CH_4$ emissions from the mine (metric tons). |
| $CH_4VTotal$ = | Quarterly sum of the $CH_4$ liberated from all mine ventilation monitoring points ($CH_4V$), calculated using Equation FF-2 (metric tons). |
| $CH_4DTotal$ = | Quarterly sum of the $CH_4$ liberated from all mine degasification monitoring points ($CH_4D$), calculated using Equation FF-4 (metric tons). |
| $CH_4DestroyedTotal$ = | Quarterly sum of the measured $CH_4$ destroyed from all mine ventilation and degasification systems, calculated using Equation FF-6 (metric tons). |

E. Pursuant to 40 CFR 98.323(e), for the methane collected from degasification and/or ventilation systems that is destroyed on site and is not a fuel input for energy generation or use (those emissions are monitored and reported under 40 CFR 98 Subpart C), the Permittee must estimate the $CO_2$ emissions using Equation FF-8.

$$CO_2 = CH_{4\,Destroyedonsite} * 44/16 \qquad \text{(Eq. FF-8)}$$

Where:

| | |
|---|---|
| $CO_2$ = | Total quarterly $CO_2$ emissions from $CH_4$ destruction (metric tons). |
| $CH_4Destroyedonsite$ = | Quarterly sum of the $CH_4$ destroyed, calculated as the sum of CH4 destroyed for each onsite, non-energy use, as calculated individually in Equation FF-5 (metric tons). |
| 44/16 = | Ratio of molecular weights of $CO_2$ to $CH_4$. |

ii. <u>Compliance Method (Mandatory Greenhouse Gas Reporting Requirements – 40 CFR 98 Subpart FF)</u>

<u>Monitoring</u>

A. Pursuant to 40 CFR 98.324(b), for $CH_4$ liberated from ventilation systems, the Permittee shall determine whether $CH_4$ will be monitored from each ventilation shaft and vent hole, from a centralized monitoring point, or from a combination of the two options. The Permittee is allowed flexibility for aggregating emissions from more than one ventilation point, as long as emissions from all are addressed, and the methodology for calculating total emissions documented. The Permittee shall monitor by one of the following options:

I. Pursuant to 40 CFR 98.324(b)(1), the Permittee shall collect quarterly or more frequent grab samples (with no fewer than 6 weeks between measurements) for methane concentration and make quarterly measurements of flow rate, temperature, pressure, and, if applicable, moisture content. The sampling and measurements must be made at the same locations as Mine Safety and Health Administration (MSHA) inspection samples are taken, and shall be taken when the mine is operating under normal conditions. The Permittee must follow MSHA sampling procedures as set forth in the MSHA Handbook entitled, Coal Mine Safety and Health General Inspection Procedures Handbook, Handbook Number: PH16-V-1 (incorporated by reference, see 40 CFR 98.7). The Permittee must record the date of sampling, flow, temperature, pressure, and moisture measurements, the methane concentration (percent), the bottle number of samples collected, and the location of the measurement or collection.

II. Pursuant to 40 CFR 98.324(b)(2), the Permittee shall obtain results of the quarterly (or more frequent) testing performed by MSHA for the methane flowrate. At the same location and within seven days of the MSHA sampling, the Permittee shall make measurements of temperature and pressure using the same procedures specified in 40 CFR 98.324(b)(1). The Permittee may use the annual average barometric pressure from the nearest National Oceanic and Atmospheric Administration (NOAA) weather service station as a default for pressure. If the MSHA data for methane flow is provided in the units of actual cubic feet of methane per day, the methane flow data shall be inserted by the Permittee into Equation FF-1 in place of the value for V and the Permittee shall remove the variables MCF, C/100%, and 1440 from the equation.

III. Pursuant to 40 CFR 98.324(b)(3), the Permittee shall monitor emissions through the use of one or more continuous emission monitoring systems (CEMS). If the Permittee uses CEMS as the basis for emissions reporting, they must provide documentation on the process for using data obtained from their CEMS to estimate emissions from their mine ventilation systems.

B. Pursuant to 40 CFR 98.324(c), for $CH_4$ liberated at degasification systems, the Permittee shall determine whether $CH_4$ will be monitored from each well and gob gas vent hole, from a centralized monitoring point, or from a combination of the two options. The Permittee is allowed flexibility for aggregating emissions from more than one well or gob gas vent hole, as long as emissions from all are addressed, and the methodology for calculating total emissions is documented. The Permittee shall monitor both gas volume and methane concentration by one of the following two options:

I. Pursuant to 40 CFR 98.324(c)(1), the Permittee may monitor emissions through the use of one or more continuous emissions monitoring systems (CEMS). If the Permittee uses CEMS as the basis for emissions reporting, the Permittee must provide documentation on the process for using data obtained from their CEMS to estimate emissions from their mine ventilation systems.

II. Pursuant to 40 CFR 98.324(c)(2), the Permittee may collect weekly (once each calendar week, with at least three days between measurements) or more frequent samples, for all degasification wells and gob gas vent holes. The Permittee shall determine weekly or more frequent flow rates, methane concentration, temperature, and pressure from these degasification wells and gob gas vent holes. The Permittee shall determine the methane composition either by submitting samples to a lab for analysis, or from the use of methanometers at the degasification monitoring site. The Permittee shall follow the sampling protocols for sampling of methane emissions from ventilation shafts, as described in 40 CFR 98.324(b)(1). The Permittee must record the date of sampling, flow, temperature, pressure, and moisture measurements, the methane concentration (percent), the bottle number of samples collected, and the location of the measurement or collection.

III. Pursuant to 40 CFR 98.324(c)(3), if the $CH_4$ concentration is determined on a dry basis and flow is determined on a wet basis or $CH_4$ concentration is determined on a wet basis and flow is determined on a dry basis, and the flow meter does not automatically correct for moisture content, the Permittee shall determine the moisture content in the gas in a location near or representative of the location of:

1. Pursuant to 40 CFR 98.324(c)(3)(i), the gas flow meter at least once each calendar week; if measuring with CEMS. If only one measurement is made each calendar week, there must be at least three days between measurements; and

2. Pursuant to 40 CFR 98.324(c)(3)(ii), the grab sample, if using grab samples, at the time of the sample.

C. Pursuant to 40 CFR 98.324(d), the Permittee shall adhere to one of the methods specified 40 CFR 98.324(d)(1) through (d)(2) for monitoring.

I. Pursuant to 40 CFR 98.324(d)(1), ASTM D1945-03, Standard Test Method for Analysis of Natural Gas by Gas Chromatography; ASTM D1946-90 (Reapproved 2006), Standard Practice for Analysis of Reformed Gas by Gas Chromatography; ASTM D4891-89 (Reapproved 2006), Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion; or ASTM UOP539-97 Refinery Gas Analysis by Gas Chromatography (incorporated by reference, see 40 CFR 98.7).

II. Pursuant to 40 CFR 98.324(d)(2), as an alternative to the gas chromatography methods provided in 40 CFR 98.324(d)(1), the Permittee may use gaseous organic concentration analyzers and a correction factor to calculate the $CH_4$ concentration following the requirements in 40 CFR 98.324(d)(2)(i) through (d)(2)(iii).

1. Pursuant to 40 CFR 98.324(d)(2)(i), the Permittee shall use USEPA Method 25A or 25B to determine gaseous organic concentration as required in 40 CFR 98.323 and in 40 CFR 98.324(b) and (c). The Permittee must calibrate the instrument with $CH_4$ and determine the total gaseous organic concentration as carbon (or as $CH_4$; K = 1 in Equation 25A-1 of USEPA Method 25A).

2. Pursuant to 40 CFR 98.324(d)(2)(ii), the Permittee shall determine a correction factor that will be used with the gaseous organic concentrations measured in 40 CFR 98.324(d)(2)(i). The correction factor must be determined at the routine

sampling location no less frequently than once a reporting year following the requirements in 40 CFR 98.324(d)(2)(ii)(A) through (d)(2)(ii)(C).

aa. Pursuant to 40 CFR 98.324(d)(2)(ii)(A), the Permittee shall take a minimum of three grab samples of the gas with a minimum of 20 minutes between samples and determine the methane composition of the gas using one of the methods specified in 40 CFR 98.324(d)(1).

bb. Pursuant to 40 CFR 98.324(d)(2)(ii)(B), as soon as practical after each grab sample is collected and prior to the collection of a subsequent grab sample, the Permittee shall determine the gaseous organic concentration of the gas using either USEPA Method 25A or 25B as specified in 40 CFR 98.324(d)(2)(i).

cc. Pursuant to 40 CFR 98.324(d)(2)(ii)(C), the Permittee shall determine the arithmetic average methane concentration and the arithmetic average gaseous organic concentration of the samples analyzed according to 40 CFR 98.324(d)(2)(ii)(A) and (d)(2)(ii)(B), respectively, and calculate the non-methane organic carbon correction factor as the ratio of the average methane concentration to the average total gaseous organic concentration. If the ratio exceeds 1, use 1 for the correction factor.

2. Pursuant to 40 CFR 98.324(d)(2)(iii), calculate the $CH_4$ concentration as specified in Equation FF-9:

$$C_{CH4} = f_{NMOC} \times C_{TGOC} \quad \text{(Eq. FF-9)}$$

Where:

$CCH_4$ = Methane ($CH_4$) concentration in the gas (volume %) for use in Equations FF-1 and FF-3.

fNMOC = Correction factor from the most recent determination of the correction factor as specified in 40 CFR 98.324(d)(2)(ii) (unitless).

CTGOC = Gaseous organic carbon concentration measured using USEPA Method 25A or 25B during routine monitoring of the gas (volume %).

D. Pursuant to 40 CFR 98.324(e), all flow meters and gas composition monitors that are used to provide data for the GHG emissions calculations shall be calibrated by the Permittee prior to the first reporting year, using the applicable methods specified in 40 CFR 98.324(d), and (e)(1) through (e)(7). Alternatively, calibration procedures specified by the flow meter manufacturer may be used. Flow meters and gas composition monitors shall be recalibrated either at the minimum frequency specified by the manufacturer or annually. The Permittee shall operate, maintain, and calibrate a gas composition monitor capable of measuring the concentration of $CH_4$ in the gas using one of the methods specified in 40 CFR 98.324(d). The Permittee shall operate, maintain, and calibrate the flow meter using any of the following test methods or follow

the procedures specified by the flow meter manufacturer. Flow meters must meet the accuracy requirements in 40 CFR 98.3(i).

I. Pursuant to 40 CFR 98.324(e)(1), ASME MFC-3M-2004, Measurement of Fluid Flow in Pipes Using Orifice, Nozzle, and Venturi (incorporated by reference, see 40 CFR 98.7).

II. Pursuant to 40 CFR 98.324(e)(2), ASME MFC-4M-1986 (Reaffirmed 1997), Measurement of Gas Flow by Turbine Meters (incorporated by reference, see 40 CFR 98.7).

III. Pursuant to 40 CFR 98.324(e)(3), ASME MFC-6M-1998, Measurement of Fluid Flow in Pipes Using Vortex Flowmeters (incorporated by reference, see 40 CFR 98.7).

IV. Pursuant to 40 CFR 98.324(e)(4), ASME MFC-7M-1987 (Reaffirmed 1992), Measurement of Gas Flow by Means of Critical Flow Venturi Nozzles (incorporated by reference, see 40 CFR 98.7).

V. Pursuant to 40 CFR 98.324(e)(5), ASME MFC-11M-2006 Measurement of Fluid Flow by Means of Coriolis Mass Flowmeters (incorporated by reference, see 40 CFR 98.7).

VI. Pursuant to 40 CFR 98.324(e)(6), ASME MFC-14M-2003 Measurement of Fluid Flow Using Small Bore Precision Orifice Meters (incorporated by reference, see 40 CFR 98.7).

VII. Pursuant to 40 CFR 98.324(e)(7), ASME MFC-18M-2001 Measurement of Fluid Flow using Variable Area Meters (incorporated by reference, see 40 CFR 98.7).

E. Pursuant to 40 CFR 98.324(f), for $CH_4$ destruction, the Permittee shall monitor $CH_4$ at each onsite destruction device and each point of offsite transport for combustion using continuous monitors of gas routed to the device or point of offsite transport.

F. Pursuant to 40 CFR 98.324(g), all temperature, pressure, and moisture content monitors must be operated and calibrated by the Permittee using the procedures and frequencies specified by the manufacturer.

G. Pursuant to 40 CFR 98.324(h), the Permittee shall document the procedures used to ensure the accuracy of gas flow rate, gas composition, temperature, pressure, and moisture content measurements. These procedures include, but are not limited to, calibration of flow meters, and other measurement devices. The estimated accuracy of measurements and the technical basis for the estimated accuracy shall be recorded by the Permittee.

H. Pursuant to 40 CFR 98.325(a), the Permittee shall maintain a complete record of all measured parameters used in the GHG emissions calculations. Therefore, whenever a quality-assured value of a required parameter is unavailable (e.g., if a meter malfunctions during unit operation or if a required fuel sample is not taken), a substitute data value for the missing parameter shall be used in the calculations, in accordance with 40 CFR 98.325(b).

I. Pursuant to 40 CFR 98.325(b), for each missing value of $CH_4$ concentration, flow rate, temperature, pressure, and moisture content for ventilation and degasification systems, the substitute data value shall be the arithmetic average of the quality-assured values of that parameter immediately preceding and immediately following the missing data incident. If, for a particular parameter, no quality-assured data are available prior to the missing data incident,

the substitute data value shall be the first quality-assured value obtained after the missing data period.

Recordkeeping

J. Pursuant to 40 CFR 98.327, in addition to the information required by 40 CFR 98.3(g), the Permittee must retain the following records:

I. Pursuant to 40 CFR 98.327(a), calibration records for all monitoring equipment, including the method or manufacturer's specification used for calibration.

II. Pursuant to 40 CFR 98.327(b), records of gas sales.

III. Pursuant to 40 CFR 98.327(c), logbooks of parameter measurements.

IV. Pursuant to 40 CFR 98.327(d), laboratory analyses of samples.

## 3. Non-Applicability Determinations

a. The Gypsum Handling Operations are not subject to the federal New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants, 40 CFR 60 Subpart OOO. While gypsum is defined as a nonmetallic mineral, the Permittee does not crush or grind gypsum so that the handling of gypsum does not involve a nonmetallic mineral processing plant, as defined by 40 CFR 60.671.

b. The Coal X-Ray Sorting Units are not subject to the operational monitoring requirements of the New Source Performance Standards (NSPS) for Coal Preparation and Processing Plants, 40 CFR 60 Subpart Y. This is because, the design-controlled PM emissions of the Coal X-Ray Sorting Units are each less than 28 tons/year, pursuant to 40 CFR 60.256(b).

c. The coal piles and associated loading to coal piles are not subject to the New Source Performance Standards (NSPS) for Coal Preparation and Processing Plants, 40 CFR Part 60 Subpart Y. This is because the coal piles and associated loading to coal piles have not been constructed, reconstructed, or modified after May 27, 2009, pursuant to 40 CFR 60.254(c).

d. The coal piles and associated operations, coal handling operations at the mine facility, and the transfer belt between the mine facility and the power plant facility are not subject to 35 IAC 212.321 pursuant to 35 IAC 212.323. This is because 35 IAC 212.323 states that 35 IAC 212.321 shall not apply to emission units, such as stock piles, to which, because of the disperse nature of such emission units, such rules cannot reasonably be applied.

e. The Waste Disposal Facility is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the Waste Disposal Facility does not have potential pre-control device emissions of the applicable regulated air pollutants that equal or exceed major source threshold levels, pursuant to 40 CFR 64.2(a)(3).

## 4. Other Requirements

As of the date of issuance of this permit, there are no other requirements that need to be included in this Condition.

## 5. Reporting Requirements

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

**a. Prompt Reporting**

i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows unless a different period is specified by a particular permit provision, i.e., NSPS or NESHAP requirement:

I. Requirements in Conditions 4.2.2(a)(i), 4.2.2(b)(i), 4.2.2(c)(i), 4.2.2(d)(i), and 4.2.2(e)(i).

B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).

ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).

iii. The deviation reports shall contain, at a minimum, the following information:

A. Date and time of the deviation.

B. Emission unit(s) and/or operation involved.

C. The duration of the event.

D. Probable cause of the deviation.

E. Corrective actions or preventative measures taken.

**b. Federal Reporting**

i. 40 CFR 60 Subpart Y Requirements

A. Pursuant to 40 CFR 60.258(b), for the purpose of reports required under 40 CFR 60.7(c), the Permittee shall report semiannually periods of excess emissions as follow:

I. Pursuant to 40 CFR 60.258(b)(2), for coal processing and conveying equipment (including breakers and crushers), and coal storage systems, transfer and loading systems that have control equipment other than a wet scrubber, submit semiannual reports to the Illinois EPA of occurrences when the measurements of the reagent injection flow rate, as applicable, vary by more than 10 percent from the average determined during the most recent performance test.

II. Pursuant to 40 CFR 60.258(b)(3), all 6-minute average opacities that exceed the applicable standard.

ii. 40 CFR 60 Subpart OOO Requirements

A. Pursuant to 40 CFR 60.676(g), for any wet Limestone Handling/Processing Operation that processes saturated and subsequently processes unsaturated materials, the Permittee shall

submit a report of this change within 30 days following such change. At the time of such change, this screening operation, bucket elevator, or belt conveyor becomes subject to the applicable opacity limit in 40 CFR 60.672(b) and the emission test requirements of 40 CFR 60.11.

iii. 40 CFR 98 Subpart FF Requirements

A. Pursuant to 40 CFR 98.322, the Permittee shall report GHGs as follows:

I. Pursuant to 40 CFR 98.322(a), the Permittee must report $CH_4$ liberated from ventilation and degasification systems.

II. Pursuant to 40 CFR 98.322(b), the Permittee must report $CH_4$ destruction from systems where gas is sold, used onsite, or otherwise destroyed (including by VAM oxidation and by flaring).

III. Pursuant to 40 CFR 98.322(c), the Permittee must report net $CH_4$ emissions from ventilation and degasification systems.

IV. Pursuant to 40 CFR 98.322(d), the Permittee must report under 40 CFR 98 Subpart FF the $CO_2$ emissions from coal mine gas $CH_4$ destruction occurring at the facility, where the gas is not a fuel input for energy generation or use (e.g., flaring and VAM oxidation).

V. Pursuant to 40 CFR 98.322(e), the Permittee must report under 40 CFR 98 Subpart C (General Stationary Fuel Combustion Sources) the $CO_2$, $CH_4$, and $N_2O$ emissions from each stationary fuel combustion unit by following the requirements of 40 CFR 98 Subpart C (General Stationary Fuel Combustion Sources). The Permittee shall report emissions from both the combustion of collected coal mine $CH_4$ and any other fuels.

VI. Pursuant to 40 CFR 98.322(f), an underground coal mine that is subject to 40 CFR 98 Subpart FF because emissions from source categories described in 40 CFR 98 Subpart A Tables A-3, A-4 or A-5, or from stationary combustion (40 CFR 98 Subpart C), is not required to report emissions under 40 CFR 98 Subpart FF unless the coal mine liberates 36,500,000 actual cubic feet (acf) or more of methane per year from its ventilation system.

B. Pursuant to 40 CFR 98.326, in addition to the information required by 40 CFR 98.3(c), each annual report must contain the following information for each mine:

I. Pursuant to 40 CFR 98.326(a), quarterly $CH_4$ liberated from each ventilation monitoring point, (metric tons $CH_4$). Where Mine Safety and Health Administration (MSHA) reports are the monitoring method chosen under 40 CFR 98.324(b), each annual report must include the MSHA reports used to report quarterly $CH_4$ concentration and volumetric flow rate as attachments.

II. Pursuant to 40 CFR 98.326(b), weekly $CH_4$ liberated from each degasification system monitoring point (metric tons $CH_4$).

III. Pursuant to 40 CFR 98.326(c), quarterly $CH_4$ destruction at each ventilation and degasification system destruction device or point of offsite transport (metric tons $CH_4$).

IV. Pursuant to 40 CFR 98.326(d), quarterly $CH_4$ emissions (net) from all ventilation and degasification systems (metric tons $CH_4$).

V. Pursuant to 40 CFR 98.326(e), quarterly $CO_2$ emissions from on-site destruction of coal mine gas $CH_4$, where the gas is not a fuel input for energy generation or use (e.g., flaring) (metric tons $CO_2$).

VI. Pursuant to 40 CFR 98.326(f), quarterly volumetric flow rate for each ventilation monitoring point and units of measure (scfm or acfm), date and location of each measurement, and method of measurement (quarterly sampling or continuous monitoring), used in Equation FF-1. Specify whether the volumetric flow rate measurement at each ventilation monitoring point is on dry basis or wet basis; and, if a flow meter is used, the Permittee shall indicate whether or not the flow meter automatically corrects for moisture content.

VII. Pursuant to 40 CFR 98.326(g), quarterly $CH_4$ concentration for each ventilation monitoring point, dates and locations of each measurement, and method of measurement (sampling or continuous monitoring). The Permittee shall specify whether the $CH_4$ concentration measurement at each ventilation monitoring point is on dry basis or wet basis.

VIII. Pursuant to 40 CFR 98.326(h), weekly volumetric flow rate used to calculate $CH_4$ liberated from degasification systems and units of measure (acfm or scfm), and method of measurement (sampling or continuous monitoring), used in Equation FF-3. The Permittee shall specify whether the volumetric flow rate measurement at each degasification monitoring point is on dry basis or wet basis; and, if a flow meter is used, indicate whether or not the flow meter automatically corrects for moisture content.

IX. Pursuant to 40 CFR 98.326(i), quarterly $CH_4$ concentration (%) used to calculate $CH_4$ liberated from degasification systems, and if the data is based on CEMS or weekly sampling. The Permittee shall specify whether the $CH_4$ concentration measurement at each degasification monitoring point is on dry basis or wet basis.

X. Pursuant to 40 CFR 98.326(j), weekly volumetric flow rate used to calculate $CH_4$ destruction for each destruction device and each point of offsite transport, and units of measure (acfm or scfm).

XI. Pursuant to 40 CFR 98.326(k), weekly $CH_4$ concentration (%) used to calculate $CH_4$ flow to each destruction device and each point of offsite transport (C).

XII. Pursuant to 40 CFR 98.326(l), dates in quarterly reporting period where active ventilation of mining operations is taking place.

XIII. Pursuant to 40 CFR 98.326(m), dates in quarterly reporting period where degasification of mining operations is taking place.

XIV. Pursuant to 40 CFR 98.326(n), dates in quarterly reporting period when continuous monitoring equipment is not properly functioning, if applicable.

XV. Pursuant to 40 CFR 98.326(o), temperature (°R), pressure (atm), moisture content (if applicable), and the moisture correction factor (if applicable) used in Equations FF-1

and FF-3; and the gaseous organic concentration correction factor, if Equation FF-9 was required. The Permittee shall report moisture content only if $CH_4$ concentration is measured on a wet basis and volumetric flow is measured on a dry basis, if $CH_4$ concentration is measured on a dry basis and volumetric flow is measured on a wet basis; and, if a flow meter is used, the flow meter does not automatically correct for moisture content.

XVI. Pursuant to 40 CFR 98.326(p), for each destruction device, a description of the device, including an indication of whether destruction occurs at the coal mine or off-site. If destruction occurs at the mine, the Permittee shall also report an indication of whether a back-up destruction device is present at the mine, the annual operating hours for the primary destruction device, the annual operating hours for the back-up destruction device (if present), and the destruction efficiencies assumed (percent).

XVII. Pursuant to 40 CFR 98.326(q), a description of the gas collection system (manufacturer, capacity, and number of wells) the surface area of the gas collection system (square meters), and the annual operating hours of the gas collection system.

XVIII. Pursuant to 40 CFR 98.326(r), identification information and description for each well, shaft, and vent hole, including 40 CFR 98.326(r)(1) through (r)(3):

1. Pursuant to 40 CFR 98.326(r)(1), indication of whether the well, shaft, or vent hole is monitored individually, or as part of a centralized monitoring point. The Permittee shall note which method (sampling or continuous monitoring) was used.

2. Pursuant to 40 CFR 98.326(r)(2), start date and close date of each well, shaft, and vent hole. If the well, shaft, or vent hole is operating through the end of the reporting year, the Permittee shall use December 31st as the close date for purposes of reporting.

3. Pursuant to 40 CFR 98.326(r)(3), number of days the well, shaft, or vent hole was in operation during the reporting year. To obtain the number of days in the reporting year, the Permittee shall divide the total number of hours that the system was in operation by 24 hours per day.

XIX. Pursuant to 40 CFR 98.326(s), for each centralized monitoring point, identification of the wells and shafts included in the point. The Permittee shall note which method (sampling or continuous monitoring) was used.

XX. Pursuant to 40 CFR 98.326(t), MSHA identification number for this coal mine.

**d. <u>State Reporting</u>**

i. <u>35 IAC 204.1400 Prevention of Significant Deterioration of Air Quality Requirements</u>

A. Pursuant to 35 IAC 204.1400(e), the Permittee shall submit a report to the Illinois EPA if the annual PM emissions, in tons per year, from the X-Ray Sorter System project, exceed the baseline actual emissions (as documented and maintained under 35 IAC 204.1400(a)(3), by a significant amount (as defined in 35 IAC 204.660), and if such emissions differ from the preconstruction projection as documented and maintained under 35 IAC 204.1400(a)(3). Such

report shall be submitted to the Illinois EPA within 60 days after the end of such year. The report shall contain the following:

I. The name, address and telephone number of the major stationary source;

II. The annual emissions as calculated under 35 IAC 204.1400(c); and

III. Any other information that the Permittee wishes to include in the report (e.g., an explanation as to why the emissions differ from the preconstruction projection).

**e. Title I Reporting**

i. Construction Permit #01100065 Requirements

A. Pursuant to Construction Permit #01100065: [T1]

II. The Permittee shall submit quarterly reports to the Illinois EPA for all deviations from emission standards, including standards for visible emissions and opacity, and operating requirements set by Construction Permit #01100065. These notifications shall include:

1. The date and time of the event,

2. A description of the event,

3. Information on the magnitude of the deviation,

4. A description of the corrective measures taken, and

5. A description of any preventative measures taken to prevent future occurrences.

II. These reports shall also address any deviations from applicable compliance procedures established by Construction Permit #01100065 for operations that handle coal and other materials in bulk that are involved with the operation of the power plant (including the mine facility) and have the potential for particulate matter emissions, including coal, rock, limestone, and ash. Units include receiving, transfer, handling, storage, processing or preparation (crushing, etc.) and loading operations for such materials.

## 4.3 Cooling Towers

### 1. Emission Units and Operations

| *Emission Units* | *Pollutants Being Addressed* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|
| Cooling Tower 1 CT01 | Opacity, PM | 09/2007 | N/A | Drift Eliminators | Water Flow Meter |
| Cooling Tower 2 CT02 | Opacity, PM | 09/2007 | N/A | Drift Eliminators | Water Flow Meter |

### 2. Applicable Requirements

For the emission units in Condition 4.3.1 above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

**a. i. <u>Opacity Requirements</u>**

A. Pursuant to 35 IAC 212.123(a), the Permittee shall not cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from each emission unit, except as provided in 35 IAC 212.124.

ii. <u>Compliance Method (Opacity Requirements)</u>

<u>Monitoring</u>

A. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall conduct an 18-minute USEPA Method 22 observation for visible emissions of each Cooling Tower every 6 months. The observation must be conducted during maximum representative operating conditions.

I. If visible emissions are observed during any USEPA Method 22 observation, the Permittee shall conduct three (3) 6-minute USEPA Method 9 observations. The Permittee shall begin the USEPA Method 9 observation within 50 operating hours from the observation of opacity.

Note: Section 7.1 does not apply to these Method 22 and Method 9 observations.

<u>Recordkeeping</u>

B. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep records for each observation for opacity conducted. These records shall include, at a minimum:

I. Date and time the observation was performed.

II. Name(s) and employer(s) of observer.

III. Identification of which equipment and emission point(s) was observed.

IV. Whether or not the equipment was running properly.

V. The findings of the observation, including the presence of any visible emissions.

VI. A description of any corrective action taken.

**b. i. Particulate Matter (PM) Requirements**

A. Pursuant to 35 IAC 212.321(a), the Permittee shall not cause or allow the emission of particulate matter into the atmosphere in any one-hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c). See Section 7.2(a).

B. Pursuant to Construction Permit #01100065, the total annual emissions of particulate matter from the cooling towers shall not exceed 15.0 tons/year, as determined by appropriate engineering calculations. [T1]

C. Pursuant to Section 39.5(7)(a) of the Act, emissions of particulate matter from the cooling towers, combined, shall not exceed 9.3 tons/year. Compliance with this annual limit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months. [T1N]

ii. Compliance Method (PM Requirements)

Testing

A. Pursuant to Construction Permit #01100065: [T1]

I. The Permittee shall measure the total dissolved solids (TDS) content in the water being circulated in the cooling towers on at least a monthly basis. Measurements of the total dissolved solids content in the wastewater discharge associated with the cooling towers, as required by a National Pollution Discharge Elimination System permit, may be used to satisfy this requirement if the effluent has not been diluted or otherwise treated in a manner that would significantly reduce its total dissolved solids content.

II. Upon written request by the Illinois EPA, the Permittee shall promptly have the water circulating in the cooling towers sampled and analyzed for the presence of hexavalent chromium in accordance with the procedures of 40 CFR 63.404(a) and (b).

Note: See Sections 2.3 and 7.1 for additional testing requirements.

Recordkeeping

B. Pursuant to Construction Permit #01100065: [T1]

I. The Permittee shall keep a file that contains the operating factors, if any, used to determine the particulate matter emissions from the cooling towers, with supporting documentation.

II. The Permittee shall maintain records for the particulate matter emissions of the cooling towers based on the operating records, the required measurements, and appropriate USEPA emission estimation methodology and emission factors, with supporting calculation.

C. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep the following records for the cooling towers:

I. A file containing total dissolved solids (TDS) content of the cooling water, discharged from the cooling towers based on representative sampling and analysis of the discharge water.

II. Emissions of PM from the cooling tower (ton/month, ton/year).

III. A one-time record of maximum emission rates (lbs/hour) for PM of each emission unit, with supporting documentation.

IV. A record of the maximum allowable emission rate calculated for 35 IAC 212.321, with supporting calculations.

Note: In this case the "Process weight" has been determined to be the weight of the process water in an hour for the cooling towers. For each cooling tower this calculates out to be 1.07 lb/hour.

**c. i. <u>Operational and Production Requirements</u>**

A. Pursuant to Construction Permit #01100065, the cooling towers shall be equipped, operated, and maintained with drift eliminators designed to limit the loss of water droplets from the unit to not more than 0.0005 percent of the circulating water flow. [T1-BACT]

B. Pursuant to Construction Permit #01100065, chromium-based water treatment chemicals, as defined in 40 CFR 63.401, shall not be used in the cooling towers. [T1]

C. Pursuant to Construction Permit #01100065, the cooling towers shall be equipped with appropriate features, such as steam reheat, to enable them to be operated without a significant contribution to fogging and icing on offsite roadways during periods when fogging or icing are present in the area or weather conditions are conducive to fogging or icing. [T1]

ii. <u>Compliance Method (Operational and Production Requirements)</u>

<u>Recordkeeping</u>

A. Pursuant to Construction Permit #01100065, the Permittee shall keep: [T1]

I. A file that contains the design loss specification for the drift eliminators installed in each cooling tower.

II. A file that contains the suppliers' recommended procedures for inspection and maintenance of the drift eliminators.

III. A file that contains the operating factors, if any, used to determine the amount of water circulated in the cooling towers, with supporting documentation.

IV. A file that contains copies of the Safety Data Sheets or other comparable information from the suppliers for the various water treatment chemicals that are added to the water circulated in the cooling towers.

V. Operating records for the amount of water circulated in the cooling towers, gallons/month. As an alternative to direct data for water flow, these records may contain other relevant operating data for the cooling towers (e.g., water flow to the cooling towers) from which the amount of water circulated in the units may be reasonably determined.

VI. Operating records for each occasion when the Permittee took action to prevent a significant contribution to fogging or icing from the cooling towers, including the date and duration, the action or actions that were taken, the weather conditions that triggered such actions, and the weather conditions when such actions were terminated.

B. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep records of the operating hours of each cooling tower (hours/month and hours/year).

**d. i. <u>Work Practice Requirements</u>**

A Pursuant to Construction Permit #01100065: [T1]

I. The Permittee shall operate and maintain the cooling towers, including the drift eliminators, in a manner consistent with good air pollution control practices for minimizing emissions.

II. The Permittee shall operate and maintain the cooling towers in accordance with written operating procedures, which procedures shall be kept current. These procedures shall address the practices that will be followed as good air pollution control practices and the actions that will be followed to prevent a significant contribution to icing and fogging on offsite roadways.

III. The Permittee shall maintain the drift eliminators in the cooling towers in a manner consistent with good air pollution control practices for minimizing emissions.

ii. <u>Compliance Method (Work Practice Requirements)</u>

<u>Monitoring</u>

A. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall perform preventative maintenance according to the cooling tower operating manual. At a minimum:

I. The Permittee shall inspect the cooling towers each month, including a visual observation of the water and components. The Permittee shall resolve any discoloration of the water and any damaged components, following manufacture recommendations, within 30 days of observation.

II. The Permittee shall conduct a detailed inspection of the cooling towers every 24 months while the cooling towers are offline and perform any necessary maintenance in accordance with manufacturer's recommendations.

B. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall review and revise the written operating procedures for each cooling tower at least once annually.

Recordkeeping

C Pursuant to Construction Permit #01100065, the Permittee shall keep inspection and maintenance logs for the drift eliminators installed in each cooling tower. [T1]

D. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain the following records:

I. Inspection and maintenance logs for each cooling tower.

II. A copy of the written operating procedures for the cooling towers.

III. The operating factors, if any, used to determine the amount of water circulated in the cooling tower, with supporting documentation.

IV. The amount of water circulated in the cooling towers (gallons/month). As an alternative to the direct data for water flow, these records may contain other relevant operating data for the unit (e.g., water flow to the unit) from which the amount of water circulated in the unit may be reasonably determined.

V. Copies of the Safety Data Sheets or other comparable information from the suppliers for the various water treatment chemicals that are added to the water circulated in the cooling towers.

VI. A description of corrective action taken to treat the discoloration of water or to repair any damaged components, or any other corrective actions taken

## 3. Non-Applicability Determinations

a. The cooling towers are not subject to the National Emission Standards for Hazardous Air Pollution (NESHAP) for Industrial Cooling Towers, 40 CFR Part 63 Subpart Q, because the Cooling Towers are not operated with chromium-based water treatment chemicals, pursuant to 40 CFR 63.400(a).

b. The cooling towers are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources, because the cooling towers use a passive control measure or characteristic (drift eliminator), that is not considered a control device because it acts to prevent the pollutants from forming, pursuant to 40 CFR 64.1 and 64.2(a)(2).

## 4. Other Requirements

As of the date of issuance of this permit, there are no other requirements that need to be included in this Condition.

## 5. Reporting Requirements

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

**a. <u>Prompt Reporting</u>**

i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows unless a different period is specified by a particular permit provision, i.e., NSPS or NESHAP requirement:

I. Requirements in Conditions 4.3.2(a)(i), 4.3.2(b)(i), 4.3.2(c)(i), and 4.3.2(d)(i).

B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).

ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).

iii. The deviation reports shall contain, at a minimum, the following information:

A. Date and time of the deviation.

B. Emission unit(s) and/or operation involved.

C. The duration of the event.

D. Probable cause of the deviation.

E. Corrective actions or preventative measures taken.

## 4.4 Auxiliary Boiler – Subject to 40 CFR 60 Subpart Db and 40 CFR 63 Subpart DDDDD

### 1. Emission Units and Operations

| *Emission Units* | *Pollutants Being Addressed* | *Original Construction Date* | *Modification/ Reconstruction Date* | *Air Pollution Control Devices or Measures* | *Monitoring Devices* |
|---|---|---|---|---|---|
| Auxiliary Boiler<br><br>Natural Gas-Fired Boiler, with Nominal Rated Heat Input Capacity of 245 Million Btu/Hr<br>EU67 | Opacity, PM, VOM, CO, $NO_X$, and HAP | 09/2007 | N/A | Low $NO_X$ Burners | Fuel Meter |

Note: The Auxiliary Boiler is subject to a federally enforceable requirement that limits operation of the Auxiliary Boiler to an annual capacity factor of 10 percent (0.10) or less for compliance with 40 CFR 60 Subpart Db.

### 2. Applicable Requirements

For the emission units in Condition 4.4.1 above, the Permittee shall comply with the following applicable requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

**a. i. <u>Opacity Requirements</u>**

A. Pursuant to 35 IAC 212.123(a), the Permittee shall not cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from each emission unit, except as provided in 35 IAC 212.124.

ii. <u>Compliance Method (Opacity Requirements)</u>

<u>Monitoring</u>

A. Pursuant to Construction Permit #01100065: [T1]

I. The Permittee shall perform emission tests as requested by the Illinois EPA for the Auxiliary Boiler within 45 days of a written request by the Illinois EPA or such later date agreed to by the Illinois EPA.

II. For opacity, USEPA Method 9 shall be used for testing unless otherwise specified or approved by the Illinois EPA.

B. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall conduct an 18-minute USEPA Method 22 observation for visible emissions of the Auxiliary Boiler within every 250 operating hours. The observation must be conducted during maximum representative operating conditions.

I. If visible emissions are observed during any USEPA Method 22 observation, the Permittee shall conduct three (3) 6-minute USEPA Method 9 observations. The

Permittee shall begin the USEPA Method 9 observation within 50 operating hours from the observation of opacity.

Note: Section 7.1 does not apply to these Method 22 and Method 9 observations.

Recordkeeping

C. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall keep records for each observation for opacity conducted. These records shall include, at a minimum:

I. Date and time the observation was performed.

II. Name(s) and employer(s) of observer.

III. Identification of which equipment and emission point(s) was observed.

IV. Whether or not the equipment was running properly.

V. The findings of the observation, including the presence of any visible emissions.

VI. A description of any corrective action taken.

**b. i. Particulate Matter (PM) Requirements**

A. Pursuant to Construction Permit #01100065, the emissions of PM from the Auxiliary Boiler shall not exceed 0.5 tons/year. Compliance with this annual limit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months. [T1]

ii. Compliance Method (PM Requirements)

A. Pursuant to Construction Permit #01100065, compliance of the Auxiliary Boiler with the annual PM emission limit shall be based on the required operating records and appropriate emission factor. [T1]

I. A published USEPA PM emission factor of 0.0076 lb/million Btu may be used for PM when the Auxiliary Boiler operates properly.

Recordkeeping

B. Pursuant to Construction Permit #01100065, the Permittee shall keep records of the annual PM emissions from the Auxiliary Boiler, based on fuel consumption and applicable emission factor, with supporting calculations. [T1]

**c. i. Volatile Organic Material (VOM) Requirements**

A. Pursuant to Construction Permit #01100065, the VOM emissions from the Auxiliary Boiler shall not exceed 0.013 lb/million Btu except during startup, shutdown and malfunction. This limit shall apply as a 3-hour block average. [T1-BACT]

B. Pursuant to Construction Permit #01100065, the emissions of VOM from the Auxiliary Boiler shall not exceed 0.8 tons/year. Compliance with this annual limit shall be determined on a

monthly basis from the sum of the data for the current month plus the preceding 11 months. [T1]

C. Pursuant to Section 39.5(7)(a) of the Act, emissions of VOM from the Auxiliary Boiler shall not exceed 0.08 tons/year. Compliance with this annual limit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months. [T1N]

ii. Compliance Method (VOM Requirements)

A. Pursuant to Construction Permit #01100065: [T1]

I. Compliance of the Auxiliary Boiler with the annual VOM emission limit shall be based on the required operating records and appropriate emission factors.

B. Pursuant to Construction Permit #01100065: [T1]

I. The emission factors for VOM shall be based on the results of the required VOM emission testing.

Testing

C. Pursuant to Construction Permit #01100065: [T1]

I. The Permittee shall perform emission tests as requested by the Illinois EPA for the Auxiliary Boiler within 45 days of a written request by the Illinois EPA or such later date agreed to by the Illinois EPA.

II. For VOM, Method 25A and 18 shall be used for testing unless otherwise specified or approved by the Illinois EPA.

Note: See Sections 2.3 and 7.1 for additional testing requirements.

Recordkeeping

D. Pursuant to Construction Permit #01100065, the Permittee shall keep records of the annual VOM emissions from the Auxiliary Boiler, based on fuel consumption and applicable emission factors, with supporting calculations. [T1]

**d. i. Carbon Monoxide (CO) Requirements**

A. Pursuant to 35 IAC 216.121, the Permittee shall not cause or allow the emission of carbon monoxide (CO) into the atmosphere from the Auxiliary Boiler to exceed 200 ppm, corrected to 50 percent excess air.

B. Pursuant to Construction Permit #01100065, the CO emissions from the Auxiliary Boiler shall not exceed 0.11 lb/million Btu except during startup, shutdown and malfunction. This limit shall apply as a 3-hour block average. [T1-BACT]

C. Pursuant to Construction Permit #01100065, the emissions of CO from the Auxiliary Boiler shall not exceed 6.8 tons/year. Compliance with this annual limit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months. [T1]

D. Pursuant to Section 39.5(7)(a) of the Act, emissions of CO from the Auxiliary Boiler shall not exceed 2.5 tons/year. Compliance with this annual limit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months. [T1N]

ii. Compliance Method (CO Requirements)

A. Pursuant to Construction Permit #01100065: [T1]

I. Compliance of the Auxiliary Boiler with the annual emission limit shall be based on the required operating records and appropriate emission factors.

II. The emission factors for CO shall be based on the results of the required CO emission testing.

Testing

B. Pursuant to Construction Permit #01100065: [T1]

I. The Permittee shall perform emission tests as requested by the Illinois EPA for the Auxiliary Boiler within 45 days of a written request by the Illinois EPA or such later date agreed to by the Illinois EPA.

II. For CO, Method 10 shall be used for testing unless otherwise specified or approved by the Illinois EPA.

C. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall perform a USEPA Method 10 test for CO prior to TBD.

D. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall perform a USEPA Method 10 test for CO within 1,000 hours of operation or every 5 years since the previous test, whichever comes first.

Note: See Sections 2.3 and 7.1 for additional testing requirements.

Recordkeeping

E. Pursuant to Construction Permit #01100065, the Permittee shall keep records of the annual CO emissions from the Auxiliary Boiler, based on fuel consumption and applicable emission factors, with supporting calculations. [T1]

F. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of:

I. The maximum emission rates for CO from the Auxiliary Boiler (ppm corrected to 50 percent excess air), with supporting calculations.

II. Each test performed, including the emission factor developed from the emission test.

III. The CO emissions in lb/million Btu from the Auxiliary Boiler in 3-hour block averages based on fuel consumption and applicable emission factors, with supporting calculations.

**e. i. Nitrogen Oxide ($NO_X$) Requirements**

A. Pursuant to Construction Permit #01100065, the $NO_X$ emissions from the Auxiliary Boiler shall not exceed 0.167 lb/million Btu except during startup, shutdown and malfunction. This limit shall apply as a 3-hour block average.: [T1-BACT]

B. Pursuant to Construction Permit #01100065, The emissions of NOx from the Auxiliary Boiler shall not exceed 10.3 tons/year. Compliance with this annual limit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months. [T1]

C. Pursuant to Section 39.5(7)(a) of the Act, emissions of $NO_X$ from the Auxiliary Boiler shall not exceed 6.0 tons/year. Compliance with this annual limit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months. [T1N]

ii. Compliance Method ($NO_x$ Requirements)

A. Pursuant to Construction Permit #01100065, compliance of the Auxiliary Boiler with the annual $NO_X$ emission limit shall be based on the required operating records and appropriate emission factors. [T1]

I. The emission factors for NOx shall be based on the results of the emission testing for NOx.

Testing

B. Pursuant to Construction Permit #01100065: [T1]

I. The Permittee shall perform emission tests as requested by the Illinois EPA for the Auxiliary Boiler within 45 days of a written request by the Illinois EPA or such later date agreed to by the Illinois EPA.

II. For $NO_X$, USEPA Method 19 as specified in 40 CFR 60.48b shall be used for testing unless otherwise specified or approved by the Illinois EPA.

C. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall perform a USEPA Method 19 test for $NO_X$ prior to TBD.

D. Pursuant to Section 39.5(7)(c) of the Act, the Permittee shall perform a USEPA Method 19 test for $NO_X$ within 1,000 hours of operation or every 5 years since the previous test, whichever comes first.

Note: See Sections 2.3 and 7.1 for additional testing requirements.

Recordkeeping

E. Pursuant to Construction Permit #01100065, the Permittee shall keep records of the annual NOx emissions from the Auxiliary Boiler, based on fuel consumption and applicable emission factors, with supporting calculations. [T1]

F. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain records of:

I. Each test performed, including the emission factor developed from the emission test.

II. The $NO_X$ emissions in lb/million Btu from the Auxiliary Boiler in 3-hour block averages based on fuel consumption and applicable emission factors, with supporting calculations.

**f. i. Operational and Production Requirements**

A. Pursuant to Construction Permit #01100065, the only fuel burned in the Auxiliary Boiler shall be natural gas. [T1-BACT]

B. Pursuant to Construction Permit #01100065: [T1]

I. The annual capacity factor of the Auxiliary Boiler, as defined by 40 CFR 60.41b, shall not exceed 10 percent.

II. The Auxiliary Boiler shall not operate for more than 500 hours per year. Compliance with this limit shall be determined from a running total of 12 months of data.

III. The rated heat input of the Auxiliary Boiler shall not exceed 245 million Btu/hour.

ii. Compliance Method (Operational and Production Requirements)

A. Pursuant to 40 CFR 63.7505(a), the Permittee must be in compliance with the work practice standards in 40 CFR 63 Subpart DDDDD.

Testing

B. Pursuant to Construction Permit #01100065: [T1]

I. The Permittee shall perform emission tests as requested by the Illinois EPA for the Auxiliary Boiler within 45 days of a written request by the Illinois EPA or such later date agreed to by the Illinois EPA.

II. The following methods and procedures shall be used for testing, unless otherwise specified or approved by the Illinois EPA:

1. For Location of Sample Points, USEPA Method 1.

2. For Gas Flow and Velocity, USEPA Method 2.

3. For Flue Gas Weight, USEPA Methods 3 or 3A.

4. For Moisture, USEPA Method 4.

Note: See Sections 2.3 and 7.1 for additional testing requirements.

Recordkeeping

C. Pursuant to 40 CFR 60.45b(k), the Permittee shall follow the applicable procedures in 40 CFR 60.49b(r) to demonstrate compliance with 40 CFR 60.42b(k)(2).

I. Pursuant to 40 CFR 60.49b(r)(1), the Permittee shall obtain and maintain fuel receipts (such as a current, valid purchase contract, tariff sheet, or transportation contract) from the fuel supplier that certify that the gaseous fuel meets the definition of natural gas as defined in 40 CFR 60.41b and the applicable sulfur limit.

D. Pursuant to 40 CFR 60.49b(d)(2), the Permittee shall record and maintain records of the amount of each fuel combusted during each calendar month.

E. Pursuant to 40 CFR 60.49b(o), all records required under 40 CFR 60.49b shall be maintained by the Permittee for a period of 2 years following the date of such record.

F. Pursuant to 40 CFR 63.7525(k), the Permittee must keep fuel use records for the days the Auxiliary Boiler was operating.

G. Pursuant to 40 CFR 63.7555(a)(1), the Permittee must keep a copy of each notification and report that was submitted to comply with 40 CFR 63 Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that was submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).

H. Pursuant to 40 CFR 63.7555(a)(3), the Permittee must keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent.

I. Pursuant to 40 CFR 63.7560(a), the Permittee must keep records in a form suitable and readily available for expeditious review, according to 40 CFR 63.10(b)(1).

J. Pursuant to 40 CFR 63.7560(b), as specified in 40 CFR 63.10(b)(1), the Permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

K. Pursuant to 40 CFR 63.7560(c), the Permittee must keep each record on site, or they must be accessible from on site (for example, through a computer network), for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). The Permittee may keep the records off site for the remaining 3 years.

L. Pursuant to Construction Permit #01100065: [T1]

I. The Permittee shall keep a file that contains the rated heat input capacity of the Auxiliary Boiler as provided by the manufacturer or subsequently determined based on the demonstrated heat input capacity of Auxiliary Boiler.

II. The Permittee shall maintain an operating log or other record that among other matters identifies each period when the Auxiliary Boiler is operated and includes the information specified by 40 CFR 60.7(b).

III. The Permittee shall maintain a summary of operating hours (hours/month and hours/year) for all operation for the Auxiliary Boiler and operation when a coal boiler was operating.

IV. The Permittee shall maintain operating records of natural gas usage on a monthly basis (cubic feet) for the Auxiliary Boiler.

V. The Permittee shall maintain operating records of the annual capacity factor for the Auxiliary Boiler.

**g. i. Work Practice Requirements**

A. Pursuant to 40 CFR 63.7500(a)(3), at all times, the Permittee must operate and maintain the Auxiliary Boiler, 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 Illinois EPA that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

B. Pursuant to Construction Permit #01100065, the Permittee shall use reasonable practices to minimize emissions during startup, shutdown and malfunction of the Auxiliary Boiler, including: [T1-BACT]

I. Operation of the Auxiliary Boiler and associated air pollution control equipment in accordance with written operating procedures that include startup, shutdown and malfunction plan(s); and

II. Inspection, maintenance and repair of the Auxiliary Boiler and associated air pollution control equipment in accordance with written maintenance procedures.

ii. Compliance Method (Work Practice Requirements)

Recordkeeping

A. Pursuant to Construction Permit #01100065, the Permittee shall maintain a maintenance and repair log for the Auxiliary Boiler. [T1]

B. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall maintain written operating procedures that include startup, shutdown, and malfunction plan(s) and a maintenance procedure.

**h. i. Tune-up Requirements**

A. Pursuant to 40 CFR 63.7500(a)(1), (c), 63.7515(d), and Table 3 Item #1 of 40 CFR 63 Subpart DDDDD, the Permittee must conduct a tune-up of the Auxiliary Boiler every 5 years as specified in 40 CFR 63.7540(a)(12). Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up.

I. Pursuant to 40 CFR 63.7540(a)(12), the Permittee must conduct a tune-up of the Auxiliary Boiler every 5 years as specified in 40 CFR 63.7540(a)(10)(i) through (vi) to demonstrate continuous compliance. The Permittee may delay the burner inspection specified in 40 CFR 63.7540(a)(10)(i) until the next scheduled or unscheduled unit shutdown, but must inspect each burner at least once every 72 months.

1. Pursuant to 40 CFR 63.7540(a)(10)(i), as applicable, the Permittee must inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled unit shutdown). At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment.

2. Pursuant to 40 CFR 63.7540(a)(10)(ii), the Permittee must inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment must be consistent with the manufacturer's specifications, if available.

3. Pursuant to 40 CFR 63.7540(a)(10)(iii), the Permittee must inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (the Permittee may delay the inspection until the next scheduled unit shutdown).

4. Pursuant to 40 CFR 63.7540(a)(10)(iv), the Permittee must optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any $NO_X$ requirement to which the unit is subject.

5. Pursuant to 40 CFR 63.7540(a)(10)(v), the Permittee must measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). The Permittee may take measurements with a portable CO analyzer.

ii. Compliance Method (Tune-up Requirements)

Recordkeeping

A. Pursuant to 40 CFR 63.7540(a)(12) and 63.7540(a)(10)(vi), the Permittee must maintain on-site and submit, if requested by the Illinois EPA:

1. A report containing the concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the Auxiliary Boiler.

2. A description of any corrective actions taken as a part of the tune-up.

## 3. Non-Applicability Determinations

a. The Auxiliary Boiler is not subject to the New Source Performance Standards (NSPS) for Electric Utility Steam Generating Units, 40 CFR Part 60 Subpart Da, because the Auxiliary Boiler is not capable of combusting more than 73 megawatts (MW) (250 million British thermal units per hour (MMBtu/hr)), pursuant to 40 CFR 60.40Da(a)(1).

b. The Auxiliary Boiler is not subject to the New Source Performance Standards (NSPS) for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60 Subpart Dc, because the Auxiliary Boiler does not have a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, pursuant to 40 CFR 60.40c(a).

c. The Auxiliary Boiler is not subject to the New Source Performance Standards (NSPS) for Greenhouse Gas Emissions for Electric Generating Units, 40 CFR Part 60 Subpart TTTT, because the Auxiliary Boiler commenced construction before January 8, 2014, and has not been reconstructed or modified, pursuant to 40 CFR 60.5509(a).

d. The Auxiliary Boiler is not subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR Part 63 Subpart JJJJJJ, because the Auxiliary Boiler is located at a major source of HAP as defined in 40 CFR 63.2, pursuant to 40 CFR 63.11193.

e. The Auxiliary Boiler is not subject to 35 IAC 212 Subpart E because the Auxiliary Boiler does not burn solid fuel or liquid fuel exclusively.

f. The Auxiliary Boiler is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources:

i. For PM, $SO_2$, VOM, CO, or HAPs because the Auxiliary Boiler does not use an add-on control device to achieve compliance with an emission limitation or standard, pursuant to 40 CFR 64.2(a)(2).

ii. For $NO_X$ because the Auxiliary Boiler uses a passive control measure, such as a combustion or other process design feature or characteristic (Low $NO_X$ Burners), that is not considered a control device because it acts to prevent the pollutants from forming, pursuant to 40 CFR 64.1 and 64.2(a)(2).

## 4. Other Requirements

As of the date of issuance of this permit, there are no other requirements that need to be included in this Condition.

## 5. Reporting Requirements

The Permittee shall submit the following information pursuant to Section 39.5(7)(f) of the Act. Addresses are included in Attachment 3.

**a. <u>Prompt Reporting</u>**

i. A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows unless a different period is specified by a particular permit provision, i.e., NSPS or NESHAP requirement:

I. Requirements in Conditions 4.4.2(a)(i), 4.4.2(b)(i), 4.4.2(c)(i), 4.4.2(d)(i), 4.4.2(e)(i), 4.4.2(f)(i), 4.4.2(g)(i), and 4.4.2(h)(i).

B. All such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).

ii. The Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).

iii. The deviation reports shall contain, at a minimum, the following information:

A. Date and time of the deviation.

B. Emission unit(s) and/or operation involved.

C. The duration of the event.

D. Probable cause of the deviation.

E. Corrective actions or preventative measures taken.

**b. Federal Reporting**

i. 40 CFR 60 Subpart Db

A. Pursuant to 40 CFR 60.49(q), the Permittee shall submit to the Illinois EPA a report containing:

I. The annual capacity factor over the previous 12 months;

II. The average fuel nitrogen content during the reporting period, if residual oil was fired; and

III. The results of any $NO_X$ emission tests required during the reporting period, the hours of operation during the reporting period, and the hours of operation since the last $NO_X$ emission test.

B. Pursuant to 40 CFR 60.49b(r)(1), the Permittee shall submit to the Illinois EPA reports certifying that only natural gas was combusted in the Auxiliary Boiler during the reporting period.

C. Pursuant to 40 CFR 60.49(w), the reporting period for the reports required under 40 CFR 60 Subpart Db is each 6-month period. All reports shall be submitted to the Illinois EPA and shall be postmarked by the 30th day following the end of the reporting period.

ii. 40 CFR 63 Subpart DDDDD

A. Pursuant to 40 CFR 63.7545(a), the Permittee must submit to the Illinois EPA all of the applicable notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) by the dates specified.

B. Pursuant to 40 CFR 63.7550(a), the Permittee must submit each applicable report in 40 CFR 63 Subpart DDDDD Table 9.

I. Pursuant to 40 CFR 63 Subpart DDDDD Table 9 Item 1, the Permittee must submit a compliance report every 5 years according to the requirements in 40 CFR 63.7550(b) containing:

1. Information required in 40 CFR 63.7550(c)(1) through (5).

2. If there are no deviations from the applicable requirements for work practice standards for periods of startup and shutdown in 40 CFR 63 Subpart DDDDD

Table 3, a statement that there were no deviations from the work practice standards during the reporting period.

3. If there was a deviation from a work practice standard for periods of startup and shutdown, during the reporting period, the report must contain the information in 40 CFR 63.7550(d).

C. Pursuant to 40 CFR 63.7550(b), because the Auxiliary Boiler is subject only to a requirement to conduct subsequent 5-year tune-up according to 40 CFR 63.7540(a)(12), and is not subject to emission limits or 40 CFR 63 Subpart DDDDD Table 4 operating limits, the Permittee may submit only a 5-year compliance report as specified in 40 CFR 63.7550(b)(1) through (4), instead of a semi-annual compliance report.

I. Each subsequent 5-year compliance report must cover the applicable 5-year periods from January 1 to December 31.

II. Each subsequent 5-year compliance reports must be postmarked or submitted no later than January 31.

D. Pursuant to 40 CFR 63.7550(c), a compliance report must contain the following information:

I. Pursuant to 40 CFR 63.7550(c)(1), the Permittee must submit a compliance report with the information in 40 CFR 63.7550(c)(5)(i) through (iv), (xiv), and (xvii).

1. Pursuant to 40 CFR 63.7550(c)(5)(i), company and facility name and address.

2. Pursuant to 40 CFR 63.7550(c)(5)(ii), process unit information, emissions limitations, and operating parameter limitations.

3. Pursuant to 40 CFR 63.7550(c)(5)(iii), date of report and beginning and ending dates of the reporting period.

4. Pursuant to 40 CFR 63.7550(c)(5)(iv), the total operating time during the reporting period.

5. Pursuant to 40 CFR 63.7550(c)(5)(xiv), include the date of the most recent tune-up for each unit subject to only the requirement to conduct 5-year tune-up according to 40 CFR 63.7540(a)(12). Include the date of the most recent burner inspection if it was not done on a 5-year period and was delayed until the next scheduled or unscheduled unit shutdown.

6. Pursuant to 40 CFR 63.7550(c)(5)(xvii), a statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

E. Pursuant to 40 CFR 63.7550(h), the Permittee must submit the reports according to the procedures specified in 40 CFR 63.7550(h)(3).

I. Pursuant to 40 CFR 63.7550(h)(3), the Permittee must submit all reports required by 40 CFR 63 Subpart DDDDD Table 9 electronically to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI). (CEDRI can be accessed through the

USEPA's Central Data Exchange (CDX).) The Permittee must use the appropriate electronic report in CEDRI for 40 CFR 63 Subpart DDDDD. Instead of using the electronic report in CEDRI for 40 CFR 63 Subpart DDDDD, the Permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (http://www.epa.gov/ttn/chief/cedri/index.html), once the XML schema is available. If the reporting form specific to 40 CFR 63 Subpart DDDDD is not available in CEDRI at the time that the report is due, the Permittee must submit the report to the Illinois EPA at the appropriate address listed in 40 CFR 63.13. The Permittee must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI.

## Section 5 – Additional Requirements

This section is reserved for additional requirements not specified in Sections 3 or 4. As of the date of issuance of this permit, there are no additional requirements that need to be separately addressed in this section.

## Section 6 – Insignificant Activities Requirements

### 1. Insignificant Activities Subject to Specific Regulations

Pursuant to 35 IAC 201.210 and 201.211, the following activities at the source constitute insignificant activities. Pursuant to Sections 9.1(d) and 39.5(6)(a) of the Act, the insignificant activities are subject to specific standards promulgated pursuant to Sections 111, 112, 165, or 173 of the Clean Air Act. The Permittee shall comply with the following applicable requirements in addition to the applicable requirements in Section 6.4 pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act:

| *Insignificant Activity* | *Number of Units* | *Insignificant Activity Category* |
|---|---|---|
| Gas turbines and stationary reciprocating internal combustion engines of less than 112 kW (150 horsepower) power output.<br>• Emergency Mine Generator Diesel Engine - 26 hp<br>• Emergency Generator LPG Engine - 29.1 hp (EU160)<br>• Emergency Generator LPG Engine - 25.3 hp | 3 | 35 IAC 201.210(a)(15) |
| Gas turbines and stationary reciprocating internal combustion engines of between 1118 and 112 kW (1500 and 150 horsepower) power output that are emergency or standby units.<br>• Emergency Fire Pump Diesel Engine - 420 bhp (EU26A)<br>• Diesel Emergency Backup Generator - 1,356 bhp (EU26C) | 2 | 35 IAC 201.210(a)(16) |

**a. <u>National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines - 40 CFR 60 Subpart ZZZZ</u>**

i. <u>26 HP Mine Generator, 25.3 HP Emergency Generator, 29.1 HP LPG Emergency Generator, 420 HP Fire Pump, and 1,356 HP Backup Generator</u>

A. Pursuant to 40 CFR 63.6590(c), the stationary reciprocating internal combustion engines must meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR Part 60 Subpart IIII, for compression ignition engines or 40 CFR Part 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40 CFR Part 63.

**b. <u>New Source Performance Standard Requirements (NSPS) for Stationary Compression Ignition Internal Combustion Engines - 40 CFR 60 Subpart IIII</u>**

i. <u>26 HP Mine Generator, 420 HP Fire Pump, and 1,356 HP Backup Generator</u>

A. Pursuant to 40 CFR 60.4200, this subpart applies to stationary compression ignition (CI) internal combustion engines (ICE).

B. Pursuant to 40 CFR 60.4205, the Permittee shall meet the applicable emission standard requirements for the stationary CI internal combustion engines.

C. Pursuant to 40 CFR 60.4206, the Permittee shall meet the emission standards requirements for the specified time for the stationary CI internal combustion engines.

D. Pursuant to 40 CFR 60.4207, the Permittee shall meet the applicable fuel requirements for the stationary CI internal combustion engines.

E. Pursuant to 40 CFR 60.4208, the Permittee shall meet the deadline for importing or installing the stationary CI internal combustion engines produced in previous model years.

F. Pursuant to 40 CFR 60.4209, the Permittee shall meet the applicable monitoring requirements for the stationary CI internal combustion engines.

G. Pursuant to 40 CFR 60.4211, the Permittee shall meet the applicable compliance requirements for the stationary CI internal combustion engines.

H. Pursuant to 40 CFR 60.4212, the Permittee shall meet the applicable test methods and other procedures for the stationary CI internal combustion engines.

I. Pursuant to 40 CFR 60.4214, the Permittee shall meet the applicable notification, reporting, and recordkeeping requirements for the stationary CI internal combustion engines.

J. Pursuant to 40 CFR 60.4218, the Permittee shall meet the applicable General Provisions for the stationary CI internal combustion engines.

**c. <u>New Source Performance Standard Requirements (NSPS) for Stationary Spark Ignition Internal Combustion Engines - 40 CFR 60 Subpart JJJJ</u>**

i. <u>25.3 HP Emergency Generator and 29.1 HP LPG Emergency Generator</u>

A. Pursuant to 40 CFR 60.4230, this subpart applies to the stationary spark ignition (SI) internal combustion engines (ICE).

B. Pursuant to 40 CFR 60.4233, the Permittee shall meet the applicable emission standard requirements for the stationary SI internal combustion engines.

C. Pursuant to 40 CFR 60.4234, the Permittee shall meet the emission standards requirements by the specified time for the stationary SI internal combustion engines.

D. Pursuant to 40 CFR 60.4235, the Permittee shall meet the applicable fuel requirements for the stationary SI internal combustion engines.

E. Pursuant to 40 CFR 60.4236, the Permittee shall meet the deadline for importing or installing the stationary SI internal combustion engines produced in previous model years.

F. Pursuant to 40 CFR 60.4237, the Permittee shall meet the applicable monitoring requirements for the stationary SI internal combustion engines.

G. Pursuant to 40 CFR 60.4243, the Permittee shall meet the applicable compliance requirements for the stationary SI internal combustion engines.

H. Pursuant to 40 CFR 60.4244, the Permittee shall meet the applicable test methods and other procedures for the stationary SI internal combustion engines.

I. Pursuant to 40 CFR 60.4245, the Permittee shall meet the applicable notification, reporting, and recordkeeping requirements for the stationary SI internal combustion engines.

J. Pursuant to 40 CFR 60.4246, the Permittee shall meet the applicable General Provisions for the stationary SI internal combustion engines.

**d. i. <u>Title I Requirements (Construction Permit #01100065)</u>**

A. Pursuant to Construction Permit #01100065: [T1]

I. The 420 HP Fire Pump and 1,356 HP Backup Generator shall be operated in accordance with good air pollution control practices to minimize emissions.

II. The 420 HP Fire Pump and 1,356 HP Backup Generator shall be used as emergency engines, as defined at 35 IAC 211.1920.

III. The power output of the 420 HP Fire Pump and 1,356 HP Backup Generator shall be no more than 1,500 horsepower, as necessary to qualify as an emergency or standby unit as defined by 35 IAC 211.1920.

IV. Operation of the 420 HP Fire Pump and 1,356 HP Backup Generator shall not exceed 340 hours per year; provided, however, that the Illinois EPA may authorize temporary operation of each diesel engine in excess of 340 hours per year to address extraordinary circumstances that require operation of the engines, by issuance of a separate State construction permit addressing such circumstances.

B. Pursuant to Construction Permit #01100065, the fuel fired in the 420 HP Fire Pump and 1,356 HP Backup Generator shall be ultra-low sulfur (ULS) diesel fuel or other alternative ultra-low sulfur fuel oil containing no more than 15 ppm sulfur (e.g., bio-diesel). [T1-BACT]

## 2. Insignificant Activities in 35 IAC 201.210(a)

In addition to any insignificant activities identified in Condition 6.1, the following additional activities at the source constitute insignificant activities pursuant to 35 IAC 201.210 and 201.211:

| *Insignificant Activity* | *Number of Units* | *Insignificant Activity Category* |
|---|---|---|
| Dewatered Gypsum to Existing Conveyors (EU157) | 1 | 35 IAC 201.210(a)(2) or (a)(3) |
| Unit 1 Bottom Ash Bunker Pile (EU154) | 1 | 35 IAC 201.210(a)(2) or (a)(3) |
| Unit 2 Bottom Ash Bunker Pile (EU155) | 1 | 35 IAC 201.210(a)(2) or (a)(3) |
| CCR Pad Pile (EU156) | 1 | 35 IAC 201.210(a)(2) or (a)(3) |
| Limestone Rock Duster Silo | 1 | 35 IAC 201.210(a)(2) or (a)(3) |
| CCR Pad to Belt Conveyor W-6 (EU158) | 1 | 35 IAC 201.210(a)(2) or (a)(3) |
| Belt Conveyor W-6 to Belt Conveyor W-7 (EU159) | 1 | 35 IAC 201.210(a)(2) or (a)(3) |
| Precision Loade to Rail Car (EU160) | 1 | 35 IAC 201.210(a)(2) or (a)(3) |

| *Insignificant Activity* | *Number of Units* | *Insignificant Activity Category* |
|---|---|---|
| Direct combustion units designed and used for comfort heating purposes or fuel combustion emission units with a rated heat input capacity of less than 2.5 mmbtu/hr that fire only natural gas, propane or liquefied petroleum gas.<br><br>Direct Combustion Comfort Heating Units<br><br>Liquid Propane/Natural Gas Make-Up Heater (EU161A and EU161B)<br><br>Seven Fuel Oil Forced Air Heaters<br>Four Fuel Oil Forced Air Heaters<br>Two Dual Fired Industrial Heaters<br>Two Kerosene Forced Air Heaters<br>Five Fuel Oil Direct Fired Heaters | 23 | 35 IAC 201.210(a)(4)(A) |
| Storage tanks of organic liquid with a capacity < 10,000 gallon and an annual throughput < 100,000 gallon, and not storing gasoline (including gasoline/ethanol blend fuels) or any amount of material or mixture of any material listed as a HAP.<br><br>• Used Oil Tank (1,100 Gal) (LG-12)<br>• Used Oil Storage Tanks (550 Gal) (ST005, ST006, and ST007)<br>• Used Oil Storage Tanks (500 Gal) (ST103) | 5 | 35 IAC 201.210(a)(10)(A) |
| Storage tanks of gasoline, including gasoline/ethanol blend fuels, with a capacity < 2000 gallons.<br><br>• Unleaded Gasoline Tank (1,000 Gal) (LG-1A)<br>• Unleaded Gasoline Tanks (833 Gal) (ST012A and ST012D) | 3 | 35 IAC 201.210(a)(10)(B) |

| *Insignificant Activity* | *Number of Units* | *Insignificant Activity Category* |
|---|---|---|
| Storage tanks of virgin or rerefined distillate oil (including kerosene and diesel fuel), hydrocarbon condensate from natural gas pipeline or storage systems, lubricating oil, or residual fuel oil.<br><br>• #1 Diesel Storage Tank (1,500 Gal) (LG-1B)<br>• #1 Diesel Storage Tank (2,500 Gal) (LG-15)<br>• #1 Diesel Storage Tanks (833 Gal) (ST012C and ST012F)<br>• #2 Diesel Storage Tank (2,500 Gal) (LG-2)<br>• #2 Diesel Storage Tank (10,859 Gal) (ST001)<br>• #2 Diesel Storage Tank (550 Gal) (ST002)<br>• #2 Diesel Storage Tank (660 Gal) (ST003)<br>• #2 Diesel Storage Tank (2,500 Gal) (ST010)<br>• #2 Diesel Storage Tank (1,500 Gal) (ST011)<br>• #2 Diesel Storage Tanks (833 Gal) (ST012B and ST012E)<br>• #2 Diesel Storage Tank (550 Gal) (ST013)<br>• #2 Diesel Storage Tank (12,000 Gal) (ST102)<br>• #2 Diesel Storage Tank (winterization only) (2,500 Gal)<br>• Hydraulic Oil Tank (10,000 Gal) (LG-3)<br>• Hydraulic Oil Tank (300 Gal) (LG-18)<br>• Gear Oil Tank (8,000 Gal) (LG-4)<br>• New Motor Oil Tank (300 Gal) (LG-5)<br>• Engine Oil Tank (300 Gal) (LG-16)<br>• New Oil Tank (150 Gal) (LG-14A)<br>• New Oil Tank (1000 Gal) (ST105)<br>• New Oil Tanks (500 Gal) (ST106, ST107, and ST108)<br>• Automatic Transmission Fluid Tank (150 Gal) (LG-13A)<br>• Transmission Fluid Tank (300 Gal) (LG-17)<br>• Liquid Petroleum Gas Tank (1,000 Gal) (LG-11)<br>• Antifreeze Tank (150 Gal) (LG-13B)<br>• F/S Power Fluid (150 Gal) (LG-14B) | 30 | 35 IAC 201.210(a)(11) |

| *Insignificant Activity* | *Number of Units* | *Insignificant Activity Category* |
|---|---|---|
| Gas turbines and stationary reciprocating internal combustion engines of less than 112 kW (150 horsepower) power output.<br><br>• One Portable Diesel Pump<br>• Two Portable Gasoline Generators<br>• One Portable Diesel Compressor<br>• One Portable Mine Generator<br>• Two Portable Gas Pumps<br>• Liquid Propane Emergency Backup Generator (EU160) | 8 | 35 IAC 201.210(a)(15) |
| Gas turbines and stationary reciprocating internal combustion engines of between 1118 and 112 kW (1500 and 150 horsepower) power output that are emergency or standby units.<br><br>• One Portable LP Backup Generator | 1 | 35 IAC 201.210(a)(16) |
| Storage tanks of any size containing exclusively soaps, detergents, surfactants, waxes, glycerin, vegetable oils, greases, animal fats, sweetener, corn syrup, aqueous salt solutions, or aqueous caustic solutions where an organic solvent has not been mixed.<br><br>• Sodium Hydroxide Tank<br>• Four Bleach, NaOCL Tanks | 5 | 35 IAC 201.210(a)(17) |
| Loading and unloading systems for railcars, tank trucks, or watercraft that handle only the following liquid materials provided an organic solvent has not been mixed with such materials: soaps, detergents, surfactants, lubricating oils, waxes, glycerin, vegetable oils, greases, animal fats, sweetener, corn syrup, aqueous salt solutions, or aqueous caustic solutions.<br><br>• Sodium Hydroxide Loading Operations<br>• Four Bleach, NaOCL Loading Operations | 5 | 35 IAC 201.210(a)(18) |

| *Insignificant Activity* | *Number of Units* | *Insignificant Activity Category* |
|---|---|---|
| Fuel dispensing operations and fuel dispensing equipment for gasoline, including gasoline/ethanol blend fuels, where the annual throughput of the fuel dispensed is less than 120,000 gallons (rolling 12-month total), for mobile sources, including on-road and off-road vehicles, for use in those mobile sources. For purposes of 35 IAC 201.210(a)(19), fuel dispensing equipment means equipment for transferring fuel to a mobile source, including nozzles, hoses, swivels, breakaways, hose retractors, vapor valves, dispensers, vacuum-assist devices, vapor-return piping, and liquid collection points. Storage tanks and storage tank equipment are not included in fuel dispensing operations or fuel dispensing equipment and are addressed separately.<br><br>• Unleaded Gasoline Tank (1,000 Gal) (LG-1A)<br>• Unleaded Gasoline Tanks (833 Gal) (ST012A and ST012D) | 3 | 35 IAC 201.210(a)(19)(A) |
| Fuel dispensing operations and fuel dispensing equipment for distillate oil (including kerosene and diesel fuel), biodiesel, and biodiesel/distillate oil blends, for mobile sources, including on-road and off-road vehicles, for use in those mobile sources. For purposes of 35 IAC 201.210(a)(19), fuel dispensing equipment means equipment for transferring fuel to a mobile source, including nozzles, hoses, swivels, breakaways, hose retractors, vapor valves, dispensers, vacuum-assist devices, vapor-return piping, and liquid collection points. Storage tanks and storage tank equipment are not included in fuel dispensing operations or fuel dispensing equipment and are addressed separately.<br><br>• #1 Diesel Storage Tank (1,500 Gal) (LG-1B)<br>• #1 Diesel Storage Tank (2,500 Gal) (LG-15)<br>• #1 Diesel Storage Tanks (833 Gal) (ST012C and ST012F)<br>• #2 Diesel Storage Tank (2,500 Gal) (LG-2)<br>• #2 Diesel Storage Tank (2,500 Gal) (ST010)<br>• #2 Diesel Storage Tanks (833 Gal) (ST012B and ST012E)<br>• #2 Diesel Storage Tank (550 Gal) (ST013)<br>• #2 Diesel Storage Tank (12,000 Gal) (ST102) | 10 | 35 IAC 201.210(a)(19)(B) |

## 3. Insignificant Activities in 35 IAC 201.210(b)

Pursuant to 35 IAC 201.210, the source has identified insignificant activities as listed in 35 IAC 201.210(b)(1) through (29) as being present at the source. The source is not required to individually list the activities.

## 4. Applicable Requirements

Insignificant activities in Conditions 6.1 and 6.2 are subject to the following general regulatory limits notwithstanding status as insignificant activities. The Permittee shall comply with the following requirements, as applicable:

a. Pursuant to 35 IAC 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 IAC 212.122, except as provided in 35 IAC 212.123(b).

b. Pursuant to 35 IAC 212.321 (see Section 7.2(a)), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceed the allowable emission rates specified in 35 IAC 212.321 and 35 IAC Part 266.

c. Pursuant to 35 IAC 215.301, no person shall cause or allow the discharge of more than 8 lbs/hr of organic material into the atmosphere from any emission source, except as provided in 35 IAC 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of 35 IAC 2015 Subpart K shall apply only to photochemically reactive material.

d. Pursuant to 35 IAC 215.122(b), no person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 250 gal, unless such tank is equipped with a permanent submerged loading pipe, submerged fill, or an equivalent device approved by the IEPA according to 35 IAC Part 201 or unless such tank is a pressure tank as described in 35 IAC 215.121(a) or is fitted with a recovery system as described in 35 IAC 215.121(b)(2). Exception as provided in 35 IAC 215.122(c): If no odor nuisance exists the limitations of 35 IAC 215.122 shall only apply to the loading of volatile organic liquid with a vapor pressure of 2.5 psia or greater at 70°F.

## 5. Compliance Method

Pursuant to Section 39.5(7)(b) of the Act, the source shall maintain records of the following items for the insignificant activities in Conditions 6.1 and 6.2:

a. List of all insignificant activities, including insignificant activities added as specified in Condition 6.6, the categories the insignificant activities fall under, and supporting calculations as needed for any insignificant activities listed in 35 IAC 201.210(a)(1) through (3).

b. Potential to emit emission calculations before any air pollution control device for any insignificant activities listed in 35 IAC 201.210(a)(1) through (3).

## 6. Notification Requirements for Insignificant Activities

The source shall notify the IEPA accordingly to the addition of insignificant activities:

**a. <u>Notification 7 Days in Advance</u>**

i. Pursuant to 35 IAC 201.212(b), 35 IAC 201.146(kkk), and Sections 39.5(12)(a) and (b) of the Act, for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(a)(1) and 201.211

and is not currently identified in Section 6.1 or 6.2, a notification to the IEPA Permit Section 7 days in advance of the addition of the insignificant activity is required. A construction permit is not required. Addresses are included in Attachment 3. The notification shall include the following pursuant to 35 IAC 201.211(b):

A. A description of the emission unit including the function and expected operating schedule of the unit.

B. A description of any air pollution control equipment or control measures associated with the emission unit.

C. The emissions of regulated air pollutants in lbs/hr and tons/yr.

D. The means by which emissions were determined or estimated.

E. The estimated number of such emission units at the source.

F. Other information upon which the applicant relies to support treatment of such emission unit as an insignificant activity.

ii. Pursuant to 35 IAC 201.212(b), 35 IAC 201.146(kkk), and Sections 39.5(12)(a) and (b) of the Act, for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(a)(2) through 201.210(a)(19) and is not currently identified in Section 6.1 or 6.2, a notification to the IEPA Permit Section 7 days in advance of the addition of the insignificant activity is required. A construction permit is not required. Addresses are included in Attachment 3.

iii. Pursuant to Sections 39.5(12)(a)(i)(b) and 39.5(12)(b)(iii) of the Act, the permit shield described in Section 39.5(7)(j) of the Act (see Condition 2.6) shall not apply to any addition of an insignificant activity noted above.

**b. Notification Required at Renewal**

Pursuant to 35 IAC 201.212(a) and 35 IAC 201.146(kkk), for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(a) and is currently identified in Section 6.1 or 6.2, a notification is not required until the renewal of this permit. A construction permit is not required.

**c. Notification Not Required**

Pursuant to 35 IAC 201.212(c) and 35 IAC 201.146(kkk), for the addition of an insignificant activity that would be categorized under 35 IAC 201.210(b) as described in Section 6.3, a notification is not required. A construction permit is not required.

## Section 7 – Other Requirements

### 1. Testing

a. Pursuant to Section 39.5(7)(a) of the Act, a written test protocol shall be submitted at least sixty (60) days prior to the actual date of testing, unless it is required otherwise in applicable state or federal statutes. The IEPA may, at the discretion of the Compliance Section Manager (or designee), accept protocol less than 60 days prior to testing provided it does not deviate from the applicable state or federal statutes. The protocol shall be submitted to the IEPA, Compliance Section and IEPA, Stack Test Specialist for its review. Addresses are included in Attachment 3. This protocol shall describe the specific procedures for testing, including as a minimum:

i. The name and identification of the emission unit(s) being tested.

ii. Purpose of the test, i.e., permit condition requirement, IEPA or USEPA requesting test.

iii. The person(s) who will be performing sampling and analysis and their experience with similar tests.

iv. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the emission unit and any control equipment will be determined.

v. The specific determinations of emissions and operation which are intended to be made, including sampling and monitoring locations.

vi. The test method(s) that will be used, with the specific analysis method, if the method can be used with different analysis methods. Include if emission tests averaging of 35 IAC 283 will be used.

vii. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with detailed justification. This shall be included as a waiver of the test procedures. If a waiver has already been obtained by the IEPA or USEPA, then the waiver shall be submitted.

viii. Any proposed use of an alternative test method, with detailed justification. This shall be included as a waiver of the test procedures. If a waiver has already been obtained by the IEPA or USEPA, then the waiver shall be submitted.

ix. Sampling of materials, QA/QC procedures, inspections, etc.

x. Notwithstanding Conditions 7.1(a)(i)-(ix) above, a test plan need not be submitted under the following circumstances:

A. Where the Permittee intends to utilize a test plan previously submitted. However, the Permittee must submit a notice containing the following:

I. The purpose of the test;

II. Date the previously submitted test plan was submitted; and

III. A statement that the source is relying on a previously submitted test plan.

B. Where the source intends to use a standard test method or procedure. However, the Permittee must submit a notice containing the following:

I. The purpose of the test; and

II. The standard test method or procedure to be used.

b. The IEPA, Compliance Section shall be notified prior to these tests to enable the IEPA to observe these tests pursuant to Section 39.5(7)(a) of the Act as follows:

i. Notification of the expected date of testing shall be submitted in writing a minimum of thirty (30) days prior to the expected test date, unless it is required otherwise in applicable state or federal statutes.

ii. Notification of the actual date and expected time of testing shall be submitted in writing a minimum of five (5) working days prior to the actual date of the test. The IEPA may, at the discretion of the Compliance Section Manager (or designee), accept notifications with shorter advance notice.

c. Copies of the Final Report(s) for these tests shall be submitted to the IEPA, Compliance Section within fourteen (14) days after the test results are compiled and finalized but no later than ninety (90) days after completion of the test, unless it is required otherwise by applicable state or federal statutes or the IEPA may, at the discretion of the Compliance Section Manager (or designee), agree upon an alternative date in advance pursuant to Section 39.5(7)(a) of the Act. The Final Report shall include as a minimum:

i. General information including emission unit(s) tested.

ii. A summary of results.

iii. Discussion of conditions during each test run (malfunction/breakdown, start-up/shutdown, abnormal processing, etc.).

iv. Description of test method(s), including description of sampling points, sampling train, analysis equipment, and test schedule.

v. Detailed description of test conditions, including:

A. Process information, i.e., mode(s) of operation, process rate, e.g. fuel or raw material consumption.

B. Control equipment information, i.e., equipment condition and operating parameters during testing.

C. A discussion of any preparatory actions taken, i.e., inspections, maintenance and repair.

vi. Data and calculations, including copies of all raw data sheets and records of laboratory analyses, sample calculations, and data on equipment calibration.

vii. An explanation of any discrepancies among individual tests or anomalous data.

viii. Results of the sampling of materials, QA/QC procedures, inspections, etc.

ix. Discussion of whether protocol was followed and description of any changes to the protocol if any occurred.

x. Demonstration of compliance showing whether test results are in compliance with applicable state or federal statutes.

d. Copies of all test reports and other test related documentation shall be kept on site as required by Condition 2.4(b) pursuant to Section 39.5(7)(e)(ii) of the Act.

## 2. PM Process Weight Rate Requirements

### a. New Process Emission Units - 35 IAC 212.321

New Process Emission Units For Which Construction or Modification Commenced On or After April 14, 1972. [35 IAC 212.321]

i. No person shall cause or allow the emission of PM into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of PM from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 IAC 212.321(c). See Condition 7.2(a)(iii) below. [35 IAC 212.321(a)]

ii. Interpolated and extrapolated values of the data in 35 IAC 212.321(c) shall be determined by using the equation: [35 IAC 212.321(b)]

$$E = A(P)^B$$

Where:

P = Process weight rate (T/hr)
E = Allowable emission rate (lbs/hr)

A. Process weight rates of less than 450 T/hr:

A = 2.54
B = 0.534

B. Process weight rates greater than or equal to 450 T/hr:

A = 24.8
B = 0.16

iii. Limits for New Process Emission Units: [35 IAC 212.321(c)]

| P (T/hr) | E (lbs/hr) | P (T/hr) | E (lbs/hr) |
|---|---|---|---|
| 0.05 | 0.55 | 25.00 | 14.00 |
| 0.10 | 0.77 | 30.00 | 15.60 |
| 0.20 | 1.10 | 35.00 | 17.00 |
| 0.30 | 1.35 | 40.00 | 18.20 |
| 0.40 | 1.58 | 45.00 | 19.20 |
| 0.50 | 1.75 | 50.00 | 20.50 |
| 0.75 | 2.40 | 100.00 | 29.50 |
| 1.00 | 2.60 | 150.00 | 37.00 |
| 2.00 | 3.70 | 200.00 | 43.00 |
| 3.00 | 4.60 | 250.00 | 48.50 |
| 4.00 | 5.35 | 300.00 | 53.00 |
| 5.00 | 6.00 | 350.00 | 58.00 |
| 10.00 | 8.70 | 400.00 | 62.00 |

| | | | |
|---|---|---|---|
| 15.00 | 10.80 | 450.00 | 66.00 |
| 20.00 | 12.50 | 500.00 | 67.00 |

## 3. 40 CFR 60 Subpart A Requirements (NSPS)

### a. 40 CFR 60 Subparts A and OOO - Standards of Performance for Nonmetallic Mineral Processing Plants

Pursuant to 40 CFR 60 Subparts A and OOO, the Permittee shall apply the following applicable General Provisions as indicated:

| Subpart A reference | Applies to Subpart OOO | Explanation |
|---|---|---|
| 60.4, Address | Yes | Except in 40 CFR 60.4(a) and (b) submittals need not be submitted to both the USEPA Region and delegated State authority (40 CFR 60.676(k)). |
| 60.7, Notification and recordkeeping | Yes | Except in (a)(1) notification of the date construction or reconstruction commenced (40 CFR 60.676(h)).<br><br>Also, except in (a)(6) performance tests involving only Method 9 (40 CFR Part 60, Appendix A-4) require a 7-day advance notification instead of 30 days (40 CFR 60.675(g)). |
| 60.8, Performance tests | Yes | Except in (d) performance tests involving only Method 9 (40 CFR Part 60, Appendix A-4) require a 7-day advance notification instead of 30 days (40 CFR 60.675(g)). |
| 60.11, Compliance with standards and maintenance requirements | Yes | Except in (b) under certain conditions (40 CFR 60.675(c)), Method 9 (40 CFR Part 60, Appendix A-4) observation is reduced from 3 hours to 30 minutes for fugitive emissions. |
| 60.18, General control device | No | Flares will not be used to comply with the emission limits. |

## 4. 40 CFR 63 Subpart A Requirements (NESHAP)

### a. 40 CFR 63 Subparts A and DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial for Institutional, Commercial, and Industrial Boilers and Process Heaters

Pursuant to 40 CFR 63 Subparts A and DDDDD, the Permittee shall apply the following applicable General Provisions as indicated:

| *General Provision Citation* | *Subject* | *Applies to Subpart DDDDD* |
|---|---|---|
| 40 CFR 63.1 | Applicability | Yes. |
| 40 CFR 63.2 | Definitions | Yes. Additional terms defined in 40 CFR 63.7575 |
| 40 CFR 63.3 | Units and Abbreviations | Yes. |
| 40 CFR 63.4 | Prohibited Activities and Circumvention | Yes. |
| 40 CFR 63.5 | Preconstruction Review and Notification Requirements | Yes. |
| 40 CFR 63.6(a), (b)(1)-(b)(5), (b)(7), (c) | Compliance with Standards and Maintenance Requirements | Yes. |
| 40 CFR 63.6(e)(1)(i) | General duty to minimize emissions. | No. See 40 CFR 63.7500(a)(3) for the general duty requirement. |
| 40 CFR 63.6(e)(1)(ii) | Requirement to correct malfunctions as soon as practicable. | No. |
| 40 CFR 63.6(e)(3) | Startup, shutdown, and malfunction plan requirements. | No. |
| 40 CFR 63.6(f)(1) | Startup, shutdown, and malfunction exemptions for compliance with non-opacity emission standards. | No. |
| 40 CFR 63.6(f)(2) and (3) | Compliance with non-opacity emission standards. | Yes. |
| 40 CFR 63.6(g) | Use of alternative standards | Yes, except 40 CFR 63.7555(d)(13) specifies the procedure for application and approval of an alternative timeframe with the PM controls requirement in the startup work practice (2). |
| 40 CFR 63.6(h)(1) | Startup, shutdown, and malfunction exemptions to opacity standards. | No. See 40 CFR 63.7500(a). |
| 40 CFR 63.6(h)(2) to (h)(9) | Determining compliance with opacity emission standards | No. Subpart DDDDD specifies opacity as an operating limit not an emission standard. |
| 40 CFR 63.6(i) | Extension of compliance | Yes. Note: Facilities may also request extensions of compliance for the installation of combined heat and power, waste heat recovery, or gas pipeline or fuel feeding infrastructure as a means of complying with this subpart. |

| *General Provision Citation* | *Subject* | *Applies to Subpart DDDDD* |
|---|---|---|
| 40 CFR 63.6(j) | Presidential exemption. | Yes. |
| 40 CFR 63.7(a), (b), (c), and (d) | Performance Testing Requirements | Yes. |
| 40 CFR 63.7(e)(1) | Conditions for conducting performance tests | No. Subpart DDDDD specifies conditions for conducting performance tests at 40 CFR 63.7520(a) to (c). |
| 40 CFR 63.7(e)(2)-(e)(9), (f), (g), and (h) | Performance Testing Requirements | Yes. |
| 40 CFR 63.8(a) and (b) | Applicability and Conduct of Monitoring | Yes. |
| 40 CFR 63.8(c)(1) | Operation and maintenance of CMS | Yes. |
| 40 CFR 63.8(c)(1)(i) | General duty to minimize emissions and CMS operation | No. See 40 CFR 63.7500(a)(3). |
| 40 CFR 63.8(c)(1)(ii) | Operation and maintenance of CMS | Yes. |
| 40 CFR 63.8(c)(1)(iii) | Startup, shutdown, and malfunction plans for CMS | No. |
| 40 CFR 63.8(c)(2) to (c)(9) | Operation and maintenance of CMS | Yes. |
| 40 CFR 63.8(d)(1) and (2) | Monitoring Requirements, Quality Control Program | Yes. |
| 40 CFR 63.8(d)(3) | Written procedures for CMS | Yes, except for the last sentence, which refers to a startup, shutdown, and malfunction plan. Startup, shutdown, and malfunction plans are not required. |
| 40 CFR 63.8(e) | Performance evaluation of a CMS | Yes. |
| 40 CFR 63.8(f) | Use of an alternative monitoring method. | Yes. |
| 40 CFR 63.8(g) | Reduction of monitoring data | Yes. |
| 40 CFR 63.9 | Notification Requirements | Yes. |
| 40 CFR 63.10(a), (b)(1) | Recordkeeping and Reporting Requirements | Yes. |
| 40 CFR 63.10(b)(2)(i) | Recordkeeping of occurrence and duration of startups or shutdowns | Yes. |
| 40 CFR 63.10(b)(2)(ii) | Recordkeeping of malfunctions | No. See 40 CFR 63.7555(d)(7) for recordkeeping of occurrence and duration and 40 CFR 63.7555(d)(8) for actions taken during malfunctions. |
| 40 CFR 63.10(b)(2)(iii) | Maintenance records | Yes. |
| 40 CFR 63.10(b)(2)(iv) and (v) | Actions taken to minimize emissions during startup, shutdown, or malfunction | No. |
| 40 CFR 63.10(b)(2)(vi) | Recordkeeping for CMS malfunctions | Yes. |

| *General Provision Citation* | *Subject* | *Applies to Subpart DDDDD* |
|---|---|---|
| 40 CFR 63.10(b)(2)(vii) to (xiv) | Other CMS requirements | Yes. |
| 40 CFR 63.10(b)(3) | Recordkeeping requirements for applicability determinations | No. |
| 40 CFR 63.10(c)(1) to (9) | Recordkeeping for sources with CMS | Yes. |
| 40 CFR 63.10(c)(10) and (11) | Recording nature and cause of malfunctions, and corrective actions | No. See 40 CFR 63.7555(d)(7) for recordkeeping of occurrence and duration and 40 CFR 63.7555(d)(8) for actions taken during malfunctions. |
| 40 CFR 63.10(c)(12) and (13) | Recordkeeping for sources with CMS | Yes. |
| 40 CFR 63.10(c)(15) | Use of startup, shutdown, and malfunction plan | No. |
| 40 CFR 63.10(d)(1) and (2) | General reporting requirements | Yes. |
| 40 CFR 63.10(d)(3) | Reporting opacity or visible emission observation results | No. |
| 40 CFR 63.10(d)(4) | Progress reports under an extension of compliance | Yes. |
| 40 CFR 63.10(d)(5) | Startup, shutdown, and malfunction reports | No. See 40 CFR 63.7550(c)(11) for malfunction reporting requirements. |
| 40 CFR 63.10(e) | Additional reporting requirements for sources with CMS | Yes. |
| 40 CFR 63.10(f) | Waiver of recordkeeping or reporting requirements | Yes. |
| 40 CFR 63.11 | Control Device Requirements | No. |
| 40 CFR 63.12 | State Authority and Delegation | Yes. |
| 40 CFR 63.13-63.16 | Addresses, Incorporation by Reference, Availability of Information, Performance Track Provisions | Yes. |
| 40 CFR 63.1(a)(5),(a)(7)-(a)(9), (b)(2), (c)(3)-(4), (d), 63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv), 63.8(a)(3), 63.9(b)(3), (h)(4), 63.10(c)(2)-(4), (c)(9). | Reserved | No. |

**b. <u>40 CFR 63 Subparts A and UUUUU - National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units</u>**

Pursuant to 40 CFR 63 Subparts A and UUUUU, the Permittee shall apply the following applicable General Provisions as indicated:

| *General Provision Citation* | *Subject* | *Applies to Subpart UUUUU* |
|---|---|---|
| 40 CFR 63.1 | Applicability | Yes. |

| *General Provision Citation* | *Subject* | *Applies to Subpart UUUUU* |
|---|---|---|
| 40 CFR 63.2 | Definitions | Yes. Additional terms defined in § 63.10042. |
| 40 CFR 63.3 | Units and Abbreviations | Yes. |
| 40 CFR 63.4 | Prohibited Activities and Circumvention | Yes. |
| 40 CFR 63.5 | Preconstruction Review and Notification Requirements | Yes. |
| 40 CFR 63.6(a), (b)(1) through (5), (b)(7), (c), (f)(2) and (3), (h)(2) through (9), (i), (j) | Compliance with Standards and Maintenance Requirements | Yes. |
| 40 CFR 63.6(e)(1)(i) | General Duty to minimize emissions | No. See § 63.10000(b) for general duty requirement. |
| 40 CFR 63.6(e)(1)(ii) | Requirement to correct malfunctions ASAP | No. |
| 40 CFR 63.6(e)(3) | SSM Plan requirements | No. |
| 40 CFR 63.6(f)(1) | SSM exemption | No. |
| 40 CFR 63.6(h)(1) | SSM exemption | No. |
| 40 CFR 63.6(g) | Compliance with Standards and Maintenance Requirements, Use of an alternative non-opacity emission standard | Yes. See 63.10011(g)(4) and 63.10021(h)(4) for additional requirements. |
| 40 CFR 63.7(e)(1) | Performance testing | No. See § 63.10007. |
| 40 CFR 63.8 | Monitoring Requirements | Yes. |
| 40 CFR 63.8(c)(1)(i) | General duty to minimize emissions and CMS operation | No. See § 63.10000(b) for general duty requirement. |
| 40 CFR 63.8(c)(1)(iii) | Requirement to develop SSM Plan for CMS | No. |
| 40 CFR 63.8(d)(3) | Written procedures for CMS | Yes, except for last sentence, which refers to an SSM plan. SSM plans are not required. |
| 40 CFR 63.9 | Notification Requirements | Yes, except (1) for the 60-day notification prior to conducting a performance test in § 63.9(e); instead use a 30-day notification period per § 63.10030(d), (2) the notification of the CMS performance evaluation in 40 CFR 63.9(g)(1) is limited to RATAs, and (3) the information required per 40 CFR 63.9(h)(2)(i); instead provide the applicable information in 40 CFR 63.10030(e)(1) through (8), for the initial notification of compliance status, only. |
| 40 CFR 63.10(a), (b)(1), (c), (d)(1) and (2), (e), and (f) | Recordkeeping and Reporting Requirements | Yes, except for the requirements to submit written reports under 40 CFR 63.10(e)(3)(v). |
| 40 CFR 63.10(b)(2)(i) | Recordkeeping of occurrence and duration of startups and shutdowns | No. |

| *General Provision Citation* | *Subject* | *Applies to Subpart UUUUU* |
|---|---|---|
| 40 CFR 63.10(b)(2)(ii) | Recordkeeping of malfunctions | No. See 40 CFR 63.10001 for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunction. |
| 40 CFR 63.10(b)(2)(iii) | Maintenance records | Yes. |
| 40 CFR 63.10(b)(2)(iv) | Actions taken to minimize emissions during SSM | No. |
| 40 CFR 63.10(b)(2)(v) | Actions taken to minimize emissions during SSM | No. |
| 40 CFR 63.10(b)(2)(vi) | Recordkeeping for CMS malfunctions | Yes. |
| 40 CFR 63.10(b)(2)(vii) through (ix) | Other CMS requirements | Yes. |
| 40 CFR 63.10(b)(3) and (d)(3) through (5) | | No. |
| 40 CFR 63.10(c)(7) | Additional recordkeeping requirements for CMS — identifying exceedances and excess emissions | Applies only through December 31, 2023. |
| 40 CFR 63.10(c)(8) | Additional recordkeeping requirements for CMS—identifying exceedances and excess emissions | Applies only through December 31, 2023. |
| 40 CFR 63.10(c)(10) | Recording nature and cause of malfunctions | No. See 40 CFR 63.10032(g) and (h) for malfunctions recordkeeping requirements. |
| 40 CFR 63.10(c)(11) | Recording corrective actions | No. See 40 CFR 63.10032(g) and (h) for malfunctions recordkeeping requirements. |
| 40 CFR 63.10(c)(15) | Use of SSM Plan | No. |
| 40 CFR 63.10(d)(5) | SSM reports | No. See 40 CFR 63.10021(h) and (i) for malfunction reporting requirements. |
| 40 CFR 63.10(e)(3)(v) and (vi) | Excess emissions and CMS performance reports | Applies only through December 31, 2023. |
| 40 CFR 63.11 | Control Device Requirements | No. |
| 40 CFR 63.12 | State Authority and Delegation | Yes. |
| 40 CFR 63.13 through 63.16 | Addresses, Incorporation by Reference, Availability of Information, Performance Track Provisions | Yes. |
| 40 CFR 63.1(a)(5),(a)(7) through (9), (b)(2), (c)(3) and (4), (d), 63.6(b)(6), (c)(3) and (4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv), 63.8(a)(3), 63.9(b)(3), (h)(4), 63.10(c)(2) through (4), (c)(9). | Reserved | No. |

## 5. Compliance Assurance Monitoring (CAM) Requirements

### a. CAM Provisions

i. Proper Maintenance

Pursuant to 40 CFR 64.7(b), at all times, the source shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

ii. Continued Operation

Pursuant to 40 CFR 64.7(c), except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the source shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit (PSEU) is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of 40 CFR Part 64, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The source shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

iii. Response to Excursions or Exceedances

A. Pursuant to 40 CFR 64.7(d)(1), upon detecting an excursion or exceedance, the source shall restore operation of the PSEU (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any start-up, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused start-up or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

B. Pursuant to 40 CFR 64.7(d)(2), determination of whether the source has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

### b. Monitoring - Monitoring

Pursuant to 40 CFR 64.7(a), the source shall comply with the monitoring requirements of the CAM Plans as described in 7.5(e) below, pursuant to 40 CFR Part 64 as submitted in the source's CAM Plan application.

**c. Monitoring – Recordkeeping**

Pursuant to 40 CFR 64.9(b)(1), the source shall maintain records of the monitoring data, monitor performance data, corrective actions taken, monitoring equipment maintenance, and other supporting information related to the monitoring requirements established for CAM.

**d. Monitoring - Reporting**

Pursuant to Sections 39.5(7)(b) and (f) of the Act, the source shall submit the following reports:

i. Semiannual Reporting

As part of the required Semiannual Monitoring Reports, the source shall submit a CAM report including the following at a minimum:

A. Summary information on the number, duration, and cause of excursions or exceedances, and the corrective actions taken pursuant to 40 CFR 64.6(c)(3) and 64.9(a)(2)(i).

B. Summary information on the number, duration, and cause for monitoring equipment downtime incidents, other than downtime associated with zero and span or calibration checks pursuant to 40 CFR 64.6(c)(3) and 64.9(a)(2)(ii).

**e. CAM Plans**

The following tables contain the CAM Plans in this CAAPP permit:

| Table | Emission Unit Section | PSEU Designation | Pollutant |
|---|---|---|---|
| 7.5.1 | 4.1 | Coal-Fired Boilers Units 1 and 2 | PM |
| 7.5.2 | 4.1 | Coal-Fired Boilers Units 1 and 2 | $H_2SO_4$ |

**Table 7.5.1 - CAM Plan**

| | |
|---|---|
| Emission Unit Section: | 4.1 |
| PSEU Designation: | Coal-Fired Boilers Unit 1 and Unit 2 |
| Pollutant: | PM |

| Condition | Authority | Limit |
|---|---|---|
| 4.1.2(b)(i)(E) | Construction Permit #01100065 | 0.015 lb/million Btu |

| Indicators: | #1) DESP | #2) PM CEMS |
|---|---|---|
| **General Criteria** | | |
| The Monitoring Approach Used to Measure the Indicators: | In order to monitor the performance of the DESP, the facility will monitor the number of electrical bus sections (or fields) that are active and are operating within a normal operating range (as specified in the Performance Criteria section, below). | 40 CFR 60, Appendix B, Performance Specification 11 and 40 CFR 60, Appendix F Procedure 2—Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources. |
| The Indicator Range Which Provides a Reasonable Assurance of Compliance: | Maintain a minimum of two (2) active fields operating nominally in each flow path of each DESP; provided that no more than ten (10) fields per DESP System are out of service at any one time. | Maintain 0.000-0.015 lb/mmBtu of PM as a 3-hour block average consisting of successive nonoverlapping 3-hour blocks starting at midnight each calendar day. |
| Quality Improvement Plan (QIP) Threshold Levels: | A QIP shall be triggered upon the occurrence during a single six (6) month period of three (3) concurrent excursions of the No. 1 indicator range and the No. 2 indicator range. | A QIP shall be triggered upon the occurrence during a single six (6) month period of three (3) concurrent excursions of the No. 1 indicator range and the No. 2 indicator range. |
| **Performance Criteria** | | |
| The Specifications for Obtaining Representative Data: | Electrical current is measured continuously and recorded in the Distributed Control System.<br><br>Each of the four independent electrical bus sections (or fields) operating across a cell has an associated operating range measured in DC milliamps (DCmA). A normal operating range of secondary current that has been derived from historical operation is between 100 and 1500 DCmA per T/R Set. A T/R set operating outside of this range would not be counted as active and operating within normal range. | 40 CFR 60, Appendix B, Performance Specification 11 and 40 CFR 60, Appendix F Procedure 2—Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources. |
| Verification Procedures to Confirm the Operational Status of the Monitoring: | Continuous live monitoring in the facility Control Room and digital alarm status monitoring. | Continuous live monitoring in the facility Control Room and digital alarm status monitoring. |

| | | |
|---|---|---|
| Quality Assurance and Quality Control (QA/QC) Practices that Ensure the Validity of the Data: | Facility operating procedures for Control Room monitoring and physical system inspection. | 40 CFR 60, Appendix B, Performance Specification 11 and 40 CFR 60, Appendix F Procedure 2— Quality Assurance Requirements for Particulate Matter Continuous Emission Monitoring Systems at Stationary Sources. |
| The Monitoring Frequency: | Continuous | Continuous |
| The Data Collection Procedures That Will Be Used: | Data collection and archiving through the Distributed Control System. | CEMS Electronic Data Acquisition and Handling System |
| The Data Averaging Period For Determining Whether an Excursion or Exceedance Has Occurred: | Daily averaging, excluding startup, shutdown, and malfunction. | 3-hour block average, start at 00:00 each day, excluding startup, shutdown, malfunction. |

**Table 7.5.2 - CAM Plan**

| | |
|---|---|
| Emission Unit Section: | 4.1 |
| PSEU Designation: | Coal-Fired Boilers Unit 1 and Unit 2 |
| Pollutant: | $H_2SO_4$ |

| Condition | Authority | Limit |
|---|---|---|
| 4.1.2(d)(i)(A) | Construction Permit #01100065 | 0.005 lb/million Btu |

| | |
|---|---|
| Indicator: | Hydrated Lime Injection Rate |
| **General Criteria** | |
| Indicators: | The indicator range is based on the hydrated lime feed rate and gross unit load. Each generating unit (i.e., Unit 1 or Unit 2) is serviced by a gravimetric weighing feeder and data recording system. Each gravimetric system is able to change the hydrated lime feed rate based on the desired load. Hydrated lime is injected into the boiler flue gas stream in order to reduce emissions of sulfuric acid mist or $H_2SO_4$. Since emissions of sulfur compounds are dependent upon the sulfur contained within the coal supplied to the boilers as fuel and gross unit load is an indicator of the amount of coal being supplied to the boilers, the function is comprised of these two process variables. |
| **Performance Criteria** | |
| The Monitoring Approach Used to Measure the Indicators: | Each Unit will independently and continuously monitor the hydrated lime injection mass feed rate using a gravimetric feeder and data recording system. |
| The Indicator Range Which Provides a Reasonable Assurance of Compliance: | For Unit 1, the current function of process variables is: $FR^{HL} = 4{,}135 + 0*MW$<br><br>For Unit 2, the current function of process variables is $FR^{HL} = 981.33 + 7.129*MW$<br><br>Where: $FR^{HL}$ = minimum Hydrated Lime Feed Rate, and MW = Gross Unit Load (MWg)<br><br>Special Note for Unit 1: The recent performance test for Unit 1 had a hydrated lime feed rate at 4,135 lbs/hr at each unit operating load. The emissions of $H_2SO_4$ measured at each load were compliant with the most stringent $H_2SO_4$ standard. Due to the static hydrated lime feed rate, the equation used to determine the appropriate hydrated lime feed rate as a function of gross unit load is unaffected by gross unit load. However, subsequent performance tests may produce a feed rate which is dependent on unit load; therefore, PSGC is presenting the indicator range as a function of gross unit load to accommodate results of future testing.<br><br>Note: The functions can and will change with future performance testing. |
| Quality Improvement Plan (QIP) Threshold Levels: | A QIP shall be triggered upon the occurrence of a hydrated lime feed rate outside of the indicator range for a continuous period of more than 24 hours. |
| | |
| The Specifications for Obtaining Representative Data: | The gravimetric feeder continuously measures mass of hydrated lime entering the boiler flue gas stream and records data in the data collection system. |
| Verification Procedures to Confirm the Operational Status of the Monitoring: | Continuous live monitoring in the facility Control Room and digital alarm status monitoring |

| | |
|---|---|
| Quality Assurance and Quality Control (QA/QC) Practices that Ensure the Validity of the Data: | Facility operating procedures for Control Room monitoring and physical system inspection. |
| The Monitoring Frequency: | Continuous |
| The Data Collection Procedures That Will Be Used: | Data collection and archiving through the Distributed Control System |
| The Data Averaging Period For Determining Whether an Excursion or Exceedance Has Occurred: | Daily averaging, excluding startup, shutdown, and malfunctions. |

## 6. Acid Rain Permit

**ACID RAIN PROGRAM**
**PHASE II PERMIT**

217-785-1705

Prairie State Generating Company, LLC
Attn: Randy Short, President and CEO
701 Market Street, Suite 781
St. Louis, Missouri, 63010

| | |
|---|---|
| Oris No.: | 55856 |
| IEPA I.D. No.: | 189808AAB |
| Source/Unit: | Prairie State Generating Station, Coal-Fired Boilers Unit 1 and Unit 2 |
| Date Received: | October 17, 2025 |
| Date Issued: | TBD |
| Expiration Date: | TBD |

**STATEMENT OF BASIS:**

In accordance with Section 39.5(17)(b) of Illinois Environmental Protection Act and Titles IV and V of the Clean Air Act, the Illinois Environmental Protection Agency is issuing this Acid Rain Program permit to Prairie State Generating Station.

**Sulfur Dioxide ($SO_2$) Allocations and Nitrogen Oxide ($NO_x$) Requirements for Each Affected Unit:**

| | | |
|---|---|---|
| Coal-Fired Boilers Unit 1 and Unit 2 | $SO_2$ Allowances | These units are not entitled to an allocation of $SO_2$ allowances pursuant to 40 CFR Part 73 |
| | $NO_X$ Limitation | These units are not subject to a $NO_X$ emissions limitation pursuant to 40 CFR Part 76 |

**PERMIT APPLICATION:** The permit application, which includes $SO_2$ allowance requirements and other standard requirements, is attached and incorporated as part of this permit. The owners and operators of this source must comply with the standard requirements and special provisions set forth in the application.

**COMMENTS, NOTES AND JUSTIFICATIONS:** This permit contains provisions related to $SO_2$ emissions and requires the owners and operators to hold $SO_2$ allowances to account for $SO_2$ emissions from the affected units. An allowance is a limited authorization to emit up to one ton of $SO_2$ during or after a specified calendar year. Although this plant is not eligible for an allowance allocated by USEPA, the owners or operators may obtain $SO_2$ allowances to cover emissions in accordance with the $SO_2$ allowance system requirements of 40 CFR Part 73. The transfer of allowances to and from a unit account does not necessitate a revision to the unit $SO_2$ allocations denoted in this permit (See 40 CFR 72.84).

This permit contains provisions related to $NO_X$ emissions and requires the owners and operators to monitor $NO_X$ emissions from affected units in accordance with applicable provisions of 40 CFR Part 75. These units are not subject to a $NO_X$ emission limitation because USEPA has not adopted such limitations for combustion turbine generating units.

This Acid Rain Program permit does not authorize the construction and operation of the affected units as such matters are addressed by Titles I and V of the Clean Air Act. This permit also does not affect the source's responsibility to meet all other applicable local, state and federal requirements, including 35 IAC Part 225, Subparts C, D, and E.

If you have any questions regarding this permit, please contact Geoffrey Blood at 217-785-1705.

William D. Marr
Manager, Permit Section
Bureau of Air

WDM:RTH:GJB:

cc: IEPA, Permit Section
IEPA, FOS, Region 3

United States
Environmental Protection Agency
Acid Rain Program

OMB No. 2060-0258
Approval expires 05/31/2025

# Acid Rain Permit Application

For more information, see instructions and 40 CFR 72.30 and 72.31.

This submission is: ☐ new ☐ revised ■ for ARP permit renewal

**STEP 1**

**Identify the facility name, State, and plant (ORIS) code.**

| Prairie State Generating Station | IL | 55856 |
|---|---|---|
| Facility (Source) Name | State | Plant Code |

**STEP 2**

**Enter the unit ID# for every affected unit at the affected source in column "a."**

| a | b |
|---|---|
| Unit ID# | Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1) |
| Unit 01 | Yes |
| Unit 02 | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |
| | Yes |

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**Prairie State Generating Station**
Facility (Source) Name (from STEP 1)

**STEP 3**

**Read the standard requirements.**

**Permit Requirements**

(1) The designated representative of each affected source and each affected unit at the source shall:
- (i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and
- (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;

(2) The owners and operators of each affected source and each affected unit at the source shall:
- (i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and
- (ii) Have an Acid Rain Permit.

**Monitoring Requirements**

(1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75.

(2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

(3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

**Sulfur Dioxide Requirements**

(1) The owners and operators of each source and each affected unit at the sourceshall:
- (i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and
- (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.

(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.

(3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
- (i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or
- (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.

(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.

(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

**Nitrogen Oxides Requirements**

The owners and operators of the source and each affected unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

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**Prairie State Generating Station**
Facility (Source) Name (from STEP 1)

**STEP 3, Cont'd.**

**Excess Emissions Requirements**

(1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
(2) The owners and operators of an affected source that has excess emissions in any calendar year shall:
   (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
   (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

**Recordkeeping and Reporting Requirements**

(1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
   (i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
   (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.
   (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
   (iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

**Liability**

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.
(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.
(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.
(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

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| Prairie State Generating Station |
|---|
| Facility (Source) Name (from STEP 1) |



**STEP 3, Cont'd.**

**Effect on Other Authorities**

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a source can hold; provided, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

**STEP 4**

**Certification**

**Read the certification statement, sign, and date.**

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

| Name Randy Short, President and CEO | |
|---|---|
| Signature Randy Short | Date 10/14/2025 |

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## 7. Cross-State Air Pollution Rule (CSAPR) Trading Program

### a. Emission Units Subject to CSAPR

| Unit(s): Coal-fired boilers Unit 1 and Unit 2 | | |
|---|---|---|
| **Monitoring Requirement** | **$SO_2$** | **$NO_X$** |
| Continuous Emission Monitoring System (40 CFR 75 Subpart B or H, as applicable) | X | X |
| An Excepted Monitoring System (40 CFR 75 Appendices D or E, as applicable) | | |
| A Low Mass Emissions Excepted Monitoring Methodology (40 CFR 75.19) | | |
| An Alternative Monitoring System (40 CFR 75 Subpart E) | | |

### b. CSAPR $NO_X$ Annual Trading Program Requirements (40 CFR 97 Subpart AAAAA)

i. Pursuant to 40 CFR 97.406(a), 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.

ii. A. Pursuant to 40 CFR 97.406(c)(1)(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 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.

B. Pursuant to 40 CFR 97.406(c)(2)(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 40 CFR 97.406(c)(1)(i), then:

I. 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

II. 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 97 Subpart AAAAA and the Clean Air Act.

iii. A. Pursuant to 40 CFR 97.406(c)(2)(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 a State (and Indian country within the borders of such 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—

I. 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 (and Indian country within the borders of such 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

II. The amount by which total $NO_X$ emissions from all CSAPR $NO_X$ Annual units at CSAPR $NO_X$ Annual sources in the State (and Indian country within the borders of such State) for such control period exceed the State assurance level.

B. Pursuant to 40 CFR 97.406(c)(2)(ii), the owners and operators shall hold the CSAPR $NO_X$ Annual allowances required under 40 CFR 97.406(c)(2)(i), 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.

C. Pursuant to 40 CFR 97.406(c)(2)(iii), total $NO_X$ emissions from all CSAPR $NO_X$ Annual units at CSAPR $NO_X$ Annual sources in a State (and Indian country within the borders of such 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 $NO_X$ Annual trading budget under 40 CFR 97.410(a) and the State's variability limit under 40 CFR 97.410(b).

D. Pursuant to 40 CFR 97.406(c)(2)(iv), it shall not be a violation of 40 CFR 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 a State (and Indian country within the borders of such 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 a State (and Indian country within the borders of such State) during a control period exceeds the common designated representative's assurance level.

E. Pursuant to 40 CFR 97.406(c)(2)(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 40 CFR 97.406(c)(2)(i) through (iii),

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

II. Each CSAPR $NO_X$ Annual allowance that the owners and operators fail to hold for such control period in accordance with 40 CFR 97.406(c)(2)(i) through (iii) and each day of such control period shall constitute a separate violation of 40 CFR 97 Subpart AAAAA and the Clean Air Act.

iv. A. Pursuant to 40 CFR 97.406(c)(3)(i), a CSAPR $NO_X$ Annual unit shall be subject to the requirements under 40 CFR 97.406(c)(1) 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.

B. Pursuant to 40 CFR 97.406(c)(3)(ii), a CSAPR $NO_X$ Annual unit shall be subject to the requirements under 40 CFR 97.406(c)(2) 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.

v. A. Pursuant to 40 CFR 97.406(c)(4)(i), a CSAPR $NO_X$ Annual allowance held for compliance with the requirements under 40 CFR 97.406(c)(1)(i) 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.

B. Pursuant to 40 CFR 97.406(c)(4)(ii), a CSAPR $NO_X$ Annual allowance held for compliance with the requirements under 40 CFR 97.406(c)(1)(ii)(A) and 40 CFR 97.406(c)(2)(i) through (iii) 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.

vi. Pursuant to 40 CFR 97.406(c)(5), 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 97 Subpart AAAAA.

vii. Pursuant to 40 CFR 97.406(c)(6), 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:

A. Such authorization shall only be used in accordance with the CSAPR $NO_X$ Annual Trading Program; and

B. Notwithstanding any other provision of 40 CFR 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.

viii. Pursuant to 40 CFR 97.406(c)(7), a CSAPR $NO_X$ Annual allowance does not constitute a property right.

ix. A. Pursuant to 40 CFR 97.406(f)(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.

B. Pursuant to 40 CFR 97.406(f)(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.

x. Pursuant to 40 CFR 97.406(g), 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.

xi. Pursuant to 40 CFR 97.430(d)(2), no owner or operator of a CSAPR $NO_X$ Annual unit shall operate the unit so as to discharge, or allow to be discharged, NOX to the atmosphere without accounting for all such $NO_X$ in accordance with the applicable provisions of 40 CFR 97 Subpart AAAAA and 40 CFR Part 75.

xii. Pursuant to 40 CFR 97.430(e), the owner or operator of a CSAPR $NO_X$ Annual unit is subject to the applicable provisions of 40 CFR 75.4(d) concerning units in long-term cold storage.

**b. Compliance Method (CSAPR $NO_X$ Annual Trading Program)**

i. A. Pursuant to 40 CFR 97.406(b)(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.

B. Pursuant to 40 CFR 97.406(b)(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 40 CFR 97.412 and to determine compliance with the CSAPR $NO_X$ Annual emissions limitation and assurance provisions under 40 CFR 97.406(c), 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.

ii. Pursuant to 40 CFR 97.430, the owners and operators, and to the extent applicable, the designated representative, of a CSAPR $NO_X$ Annual unit, shall comply with the monitoring, recordkeeping, and reporting requirements as provided in 40 CFR 97 Subpart AAAAA and 40 CFR 75 Subpart H. For purposes of applying such requirements, the definitions in 40 CFR 97.402 and in 40 CFR 72.2 shall apply, the terms "affected unit," "designated representative," and "continuous emission monitoring system" (or "CEMS") in 40 CFR Part 75 shall be deemed to refer to the terms "CSAPR $NO_X$ Annual unit," "designated representative," and "continuous emission monitoring system" (or "CEMS") respectively as defined in 40 CFR 97.402, and the term "newly affected unit" shall be deemed to mean "newly affected CSAPR $NO_X$ Annual unit". The owner or operator of a unit that is not a CSAPR $NO_X$ Annual unit but that is monitored under 40 CFR 75.72(b)(2)(ii) shall comply with the same monitoring, recordkeeping, and reporting requirements as a CSAPR $NO_X$ Annual unit.

Monitoring

iii. Pursuant to 40 CFR 97.430(a), the owner or operator of each CSAPR $NO_X$ Annual unit shall:

A. Install all monitoring systems required under 40 CFR 97 Subpart AAAAA for monitoring $NO_X$ mass emissions and individual unit heat input (including all systems required to monitor $NO_X$ emission rate, $NO_X$ concentration, stack gas moisture content, stack gas flow rate, $CO_2$ or $O_2$ concentration, and fuel flow rate, as applicable, in accordance with 40 CFR 75.71 and 75.72);

B. Successfully complete all certification tests required under 40 CFR 97.431 and meet all other requirements of 40 CFR 97 Subpart AAAAA and 40 CFR Part 75 applicable to the monitoring systems under 40 CFR 97.430(a)(1); and

C. Record, report, and quality-assure the data from the monitoring systems under 40 CFR 97.430(a)(1).

iv. Pursuant to 40 CFR 97.430(d)(3), no owner or operator of a CSAPR $NO_X$ Annual unit shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring method, and thereby avoid monitoring and recording $NO_X$ mass discharged into the atmosphere or heat input, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of 40 CFR 97 Subpart AAAAA and 40 CFR Part 75.

v. Pursuant to 40 CFR 97.430(d)(4), no owner or operator of a CSAPR $NO_X$ Annual unit shall retire or permanently discontinue use of the continuous emission monitoring system, any component thereof, or any other approved monitoring system under 40 CFR 97 Subpart AAAAA, except under any one of the following circumstances:

A. During the period that the unit is covered by an exemption under 40 CFR 97.405 that is in effect;

B. The owner or operator is monitoring emissions from the unit with another certified monitoring system approved, in accordance with the applicable provisions of 40 CFR 97 Subpart AAAAA and 40 CFR Part 75, by the Administrator for use at that unit that provides emission data for the same pollutant or parameter as the retired or discontinued monitoring system; or

C. The designated representative submits notification of the date of certification testing of a replacement monitoring system for the retired or discontinued monitoring system in accordance with 40 CFR 97.431(d)(3)(i).

vi. A. Pursuant to 40 CFR 97.432(a), whenever any monitoring system fails to meet the quality-assurance and quality-control requirements or data validation requirements of 40 CFR Part 75, data shall be substituted using the applicable missing data procedures in 40 CFR 75 Subpart D or 40 CFR 75 Subpart H, or appendix D or appendix E to 40 CFR Part 75.

B. Pursuant to 40 CFR 97.432(b), whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or other requirement under 40 CFR 97.431 or the applicable provisions of 40 CFR Part 75, both at the time of the initial certification or recertification application submission and at the time of the audit, the Administrator will issue a notice of disapproval of the certification status of such monitoring system. For the purposes of this paragraph, an audit shall be either a field audit or an audit of any information submitted to the Administrator or any State or permitting authority. By issuing the notice of disapproval, the Administrator revokes prospectively the certification status of the monitoring system. The data measured and recorded by the monitoring system shall not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests for the monitoring system. The owner or operator shall follow the applicable initial certification or recertification procedures in 40 CFR 97.431 for each disapproved monitoring system.

Recordkeeping

vii. Pursuant to 40 CFR 97.406(e)(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.

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

B. All emissions monitoring information, in accordance with 40 CFR 97 Subpart AAAAA.

C. 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.

viii. Pursuant to 40 CFR 97.434(a), the designated representative shall comply with all recordkeeping and reporting requirements in 40 CFR 97.434(b) through (e), the applicable recordkeeping and reporting requirements under 40 CFR 75.73, and the requirements of 40 CFR 97.414(a).

ix. Pursuant to 40 CFR 97.434(b), the owner or operator of a CSAPR $NO_X$ Annual unit shall comply with the requirements of 40 CFR 75.73(c) and (e).

Reporting

x. Pursuant to 40 CFR 97.406(e)(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.

xi. Pursuant to 40 CFR 97.430(c), the owner or operator of a CSAPR $NO_X$ Annual unit that does not meet the applicable compliance date set forth in 40 CFR 97.430(b) for any monitoring system under 40 CFR 97.430(a)(1) shall, for each such monitoring system, determine, record, and report maximum potential (or, as appropriate, minimum potential) values for $NO_X$ concentration, $NO_X$ emission rate, stack gas flow rate, stack gas moisture content, fuel flow rate, and any other parameters required to determine $NO_X$ mass emissions and heat input in accordance with 40 CFR 75.31(b)(2) or (c)(3), section 2.4 of appendix D to 40 CFR Part 75, or section 2.5 of appendix E to 40 CFR Part 75, as applicable.

xii. Pursuant to 40 CFR 97.433, the designated representative of a CSAPR $NO_X$ Annual unit shall submit written notice to the Administrator in accordance with 40 CFR 75.61.

xiii. Pursuant to 40 CFR 97.434(c), the designated representative shall submit an application to the Administrator within 45 days after completing all initial certification or recertification tests required under 40 CFR 97.431, including the information required under 40 CFR 75.63.

xiv. Pursuant to 40 CFR 97.434(d), the designated representative shall submit quarterly reports, as follows:

A. The designated representative shall report the $NO_X$ mass emissions data and heat input data for a CSAPR $NO_X$ Annual unit, in an electronic quarterly report in a format prescribed by the Administrator, for each calendar quarter beginning with the later of:

I. The calendar quarter covering January 1, 2015 through March 31, 2015; or

II. The calendar quarter corresponding to the earlier of the date of provisional certification or the applicable deadline for initial certification under 40 CFR 97.430(b).

B. The designated representative shall submit each quarterly report to the Administrator within 30 days after the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in 40 CFR 75.73(f).

C. For CSAPR $NO_X$ Annual units that are also subject to the Acid Rain Program, CSAPR $NO_X$ Ozone Season Group 1 Trading Program, CSAPR $NO_X$ Ozone Season Group 2 Trading Program, CSAPR $NO_X$ Ozone Season Group 3 Trading Program, CSAPR $SO_2$ Group 1 Trading Program, or CSAPR $SO_2$ Group 2 Trading Program, quarterly reports shall include the applicable data and information required by 40 CFR 75 Subparts F through H as applicable, in addition to the $NO_X$ mass emission data, heat input data, and other information required by 40 CFR 97 Subpart AAAAA.

D. The Administrator may review and conduct independent audits of any quarterly report in order to determine whether the quarterly report meets the requirements of 40 CFR 97 Subpart AAAAA and 40 CFR Part 75, including the requirement to use substitute data.

I. The Administrator will notify the designated representative of any determination that the quarterly report fails to meet any such requirements and specify in such notification any corrections that the Administrator believes are necessary to make through resubmission of the quarterly report and a reasonable time period within which the designated representative must respond. Upon request by the designated representative, the Administrator may specify reasonable extensions of such time period. Within the time period (including any such extensions) specified by the Administrator, the designated representative shall resubmit the quarterly report with the corrections specified by the Administrator, except to the extent the designated representative provides information demonstrating that a specified correction is not necessary because the quarterly report already meets the requirements of 40 CFR 97 Subpart AAAAA and 40 CFR Part 75 that are relevant to the specified correction.

II. Any resubmission of a quarterly report shall meet the requirements applicable to the submission of a quarterly report under 40 CFR 97 Subpart AAAAA and 40 CFR Part 75, except for the deadline set forth in 40 CFR 97.434(d)(2).

xv. Pursuant to 40 CFR 97.434(e), the designated representative shall submit to the Administrator a compliance certification (in a format prescribed by the Administrator) in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification shall state that:

A. The monitoring data submitted were recorded in accordance with the applicable requirements of 40 CFR 97 Subpart AAAAA and 40 CFR Part 75, including the quality assurance procedures and specifications; and

B. For a unit with add-on $NO_X$ emission controls and for all hours where $NO_X$ data are substituted in accordance with 40 CFR 75.34(a)(1), the add-on emission controls were operating within the range of parameters listed in the quality assurance/quality control program under appendix B to 40 CFR Part 75 and the substitute data values do not systematically underestimate $NO_X$ emissions.

**c. CSAPR $SO_2$ Group 1 Trading Program Requirements (40 CFR 97 Subpart CCCCC)**

i. Pursuant to 40 CFR 97.606(a), 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.

ii. A. Pursuant to 40 CFR 97.606(c)(1)(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.

B. Pursuant to 40 CFR 97.606(c)(1)(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 40 CFR 97.606(c)(1)(i), then:

I. 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

II. 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 of 40 CFR 97 Subpart CCCCC and the Clean Air Act.

iii. A. Pursuant to 40 CFR 97.606(c)(2)(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 a State (and Indian country within the borders of such 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—

I. 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 (and Indian country within the borders of such 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

II. 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 (and Indian country within the borders of such State) for such control period exceed the State assurance level.

B. Pursuant to 40 CFR 97.606(c)(2)(ii), the owners and operators shall hold the CSAPR $SO_2$ Group 1 allowances required under 40 CFR 97.606(c)(2)(i), 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.

C. Pursuant to 40 CFR 97.606(c)(2)(iii), total $SO_2$ emissions from all CSAPR $SO_2$ Group 1 units at CSAPR $SO_2$ Group 1 sources in a State (and Indian country within the borders of such 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).

D. Pursuant to 40 CFR 97.606(c)(2)(iv), it shall not be a violation of 40 CFR 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 a State (and Indian country within the borders of such State) during a control period exceed the State assurance level or if a 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 a State (and Indian country within the borders of such State) during a control period exceeds the common designated representative's assurance level.

E. Pursuant to 40 CFR 97.606(c)(2)(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 40 CFR 97.606(c)(2)(i) through (iii),

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

II. Each CSAPR $SO_2$ Group 1 allowance that the owners and operators fail to hold for such control period in accordance with 40 CFR 97.606(c)(2)(i) through (iii) and each day of such control period shall constitute a separate violation of 40 CFR 97 Subpart CCCCC and the Clean Air Act.

iv. A. Pursuant to 40 CFR 97.606(c)(3)(i), a CSAPR $SO_2$ Group 1 unit shall be subject to the requirements under 40 CFR 97.606(c)(1) 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.

B. Pursuant to 40 CFR 97.606(c)(3)(ii), a CSAPR $SO_2$ Group 1 unit shall be subject to the requirements under 40 CFR 97.606(c)(2) 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.

v. A. Pursuant to 40 CFR 97.606(c)(4)(i), a CSAPR $SO_2$ Group 1 allowance held for compliance with the requirements under 40 CFR 97.606(c)(1)(i) 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.

B. Pursuant to 40 CFR 97.606(c)(4)(ii), a CSAPR $SO_2$ Group 1 allowance held for compliance with the requirements under 40 CFR 97.606(c)(1)(ii)(A) and 40 CFR 97.606(c)(2)(i) through (iii) 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.

vi. Pursuant to 40 CFR 97.606(c)(5), 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 97 Subpart CCCCC.

vii. Pursuant to 40 CFR 97.606(c)(6), 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:

A. Such authorization shall only be used in accordance with the CSAPR $SO_2$ Group 1 Trading Program; and

B. Notwithstanding any other provision of 40 CFR 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.

viii. Pursuant to 40 CFR 97.606(c)(7), a CSAPR $SO_2$ Group 1 allowance does not constitute a property right.

ix. A. Pursuant to 40 CFR 97.606(f)(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.

B. Pursuant to 40 CFR 97.606(f)(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.

x. Pursuant to 40 CFR 97.606(g), 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.

xi. Pursuant to 40 CFR 97.630(d)(2), no owner or operator of a CSAPR $SO_2$ Group 1 unit shall operate the unit so as to discharge, or allow to be discharged, $SO_2$ to the atmosphere without accounting for all such $SO_2$ in accordance with the applicable provisions of 40 CFR 97 Subpart CCCCC and 40 CFR Part 75.

xii. Pursuant to 40 CFR 97.630(e), the owner or operator of a CSAPR $SO_2$ Group 1 unit is subject to the applicable provisions of 40 CFR 75.4(d) concerning units in long-term cold storage.

**d. <u>Compliance Method (CSAPR $SO_2$ Group 1 Trading Program)</u>**

i. A. Pursuant to 40 CFR 97.606(b)(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.

B. Pursuant to 40 CFR 97.606(b)(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 40 CFR 97.612 and to determine compliance with the CSAPR $SO_2$ Group 1 emissions limitation and assurance provisions under 40 CFR 97.606(c),

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.

ii. Pursuant to 40 CFR 97.630, the owners and operators, and to the extent applicable, the designated representative, of a CSAPR $SO_2$ Group 1 unit, shall comply with the monitoring, recordkeeping, and reporting requirements as provided in 40 CFR 97 Subpart CCCCC and 40 CFR 75 Subparts F and G. For purposes of applying such requirements, the definitions in 40 CFR 97.602 and in 40 CFR 72.2 shall apply, the terms "affected unit," "designated representative," and "continuous emission monitoring system" (or "CEMS") in 40 CFR Part 75 shall be deemed to refer to the terms "CSAPR $SO_2$ Group 1 unit," "designated representative," and "continuous emission monitoring system" (or "CEMS") respectively as defined in 40 CFR 97.602, and the term "newly affected unit" shall be deemed to mean "newly affected CSAPR $SO_2$ Group 1 unit". The owner or operator of a unit that is not a CSAPR $SO_2$ Group 1 unit but that is monitored under 40 CFR 75.16(b)(2) shall comply with the same monitoring, recordkeeping, and reporting requirements as a CSAPR $SO_2$ Group 1 unit.

Monitoring

iii. Pursuant to 40 CFR 97.630(a), the owner or operator of each CSAPR $SO_2$ Group 1 unit shall:

A. Install all monitoring systems required under 40 CFR 97 Subpart CCCCC for monitoring $SO_2$ mass emissions and individual unit heat input (including all systems required to monitor $SO_2$ concentration, stack gas moisture content, stack gas flow rate, $CO_2$ or $O_2$ concentration, and fuel flow rate, as applicable, in accordance with 40 CFR 75.11 and 75.16);

B. Successfully complete all certification tests required under 40 CFR 97.631 and meet all other requirements of 40 CFR 97 Subpart CCCCC and 40 CFR Part 75 applicable to the monitoring systems under 40 CFR 97.630(a)(1); and

C. Record, report, and quality-assure the data from the monitoring systems under 40 CFR 97.630(a)(1).

iv. Pursuant to 40 CFR 97.630(d)(3), no owner or operator of a CSAPR $SO_2$ Group 1 unit shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring method, and thereby avoid monitoring and recording $SO_2$ mass discharged into the atmosphere or heat input, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of 40 CFR 97 Subpart CCCCC and 40 CFR Part 75.

v. Pursuant to 40 CFR 97.630(d)(4), no owner or operator of a CSAPR $SO_2$ Group 1 unit shall retire or permanently discontinue use of the continuous emission monitoring system, any component thereof, or any other approved monitoring system under 40 CFR 97 Subpart CCCCC, except under any one of the following circumstances:

A. During the period that the unit is covered by an exemption under 40 CFR 97.605 that is in effect;

B. The owner or operator is monitoring emissions from the unit with another certified monitoring system approved, in accordance with the applicable provisions of 40 CFR 97 Subpart CCCCC

and 40 CFR Part 75, by the Administrator for use at that unit that provides emission data for the same pollutant or parameter as the retired or discontinued monitoring system; or

C. The designated representative submits notification of the date of certification testing of a replacement monitoring system for the retired or discontinued monitoring system in accordance with 40 CFR 97.631(d)(3)(i).

vi. A. Pursuant to 40 CFR 97.632(a), whenever any monitoring system fails to meet the quality-assurance and quality-control requirements or data validation requirements of 40 CFR Part 75, data shall be substituted using the applicable missing data procedures in 40 CFR 97 Subpart D, or appendix D to 40 CFR Part 75.

B. Pursuant to 40 CFR 97.632(b), whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or other requirement under 40 CFR 97.631 or the applicable provisions of 40 CFR Part 75, both at the time of the initial certification or recertification application submission and at the time of the audit, the Administrator will issue a notice of disapproval of the certification status of such monitoring system. For the purposes of this paragraph, an audit shall be either a field audit or an audit of any information submitted to the Administrator or any State or permitting authority. By issuing the notice of disapproval, the Administrator revokes prospectively the certification status of the monitoring system. The data measured and recorded by the monitoring system shall not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests for the monitoring system. The owner or operator shall follow the applicable initial certification or recertification procedures in 40 CFR 97.631 for each disapproved monitoring system.

Recordkeeping

vii. Pursuant to 40 CFR 97.606(e)(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.

A. 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.

B. All emissions monitoring information, in accordance with 40 CFR 97 Subpart CCCCC.

C. 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.

viii. Pursuant to 40 CFR 97.634(a), the designated representative shall comply with all recordkeeping and reporting requirements in 40 CFR 97.634(b) through (e), the applicable recordkeeping and reporting requirements in 40 CFR 75 Subparts F and G, and the requirements of 40 CFR 97.614(a).

ix. Pursuant to 40 CFR 97.634(b), the owner or operator of a CSAPR $SO_2$ Group 1 unit shall comply with the requirements of 40 CFR 75.62.

Reporting

x. Pursuant to 40 CFR 97.606(e)(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.

xi. Pursuant to 40 CFR 97.630(c), the owner or operator of a CSAPR $SO_2$ Group 1 unit that does not meet the applicable compliance date set forth in 40 CFR 97.630(b) for any monitoring system under 40 CFR 97.630(a)(1) shall, for each such monitoring system, determine, record, and report maximum potential (or, as appropriate, minimum potential) values for $SO_2$ concentration, stack gas flow rate, stack gas moisture content, fuel flow rate, and any other parameters required to determine $SO_2$ mass emissions and heat input in accordance with 40 CFR 75.31(b)(2) or (c)(3) or section 2.4 of appendix D to 40 CFR Part 75, as applicable.

xii. Pursuant to 40 CFR 97.633, the designated representative of a CSAPR $SO_2$ Group 1 unit shall submit written notice to the Administrator in accordance with 40 CFR 75.61.

xiii. Pursuant to 40 CFR 97.634(c), the designated representative shall submit an application to the Administrator within 45 days after completing all initial certification or recertification tests required under 40 CFR 97.631, including the information required under 40 CFR 75.63.

xiv. Pursuant to 40 CFR 97.634(d), the designated representative shall submit quarterly reports, as follows:

A. The designated representative shall report the $SO_2$ mass emissions data and heat input data for a CSAPR $SO_2$ Group 1 unit, in an electronic quarterly report in a format prescribed by the Administrator, for each calendar quarter beginning with the later of:

I. The calendar quarter covering January 1, 2015 through March 31, 2015; or

II. The calendar quarter corresponding to the earlier of the date of provisional certification or the applicable deadline for initial certification under 40 CFR 97.630(b).

B. The designated representative shall submit each quarterly report to the Administrator within 30 days after the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in 40 CFR 75.64.

C. For CSAPR $SO_2$ Group 1 units that are also subject to the Acid Rain Program, CSAPR $NO_X$ Annual Trading Program, CSAPR $NO_X$ Ozone Season Group 1 Trading Program, CSAPR $NO_X$ Ozone Season Group 2 Trading Program, or CSAPR $NO_X$ Ozone Season Group 3 Trading Program, quarterly reports shall include the applicable data and information required by 40 CFR 75 Subparts F through H as applicable, in addition to the $SO_2$ mass emission data, heat input data, and other information required by 40 CFR 97 Subpart CCCCC.

D. The Administrator may review and conduct independent audits of any quarterly report in order to determine whether the quarterly report meets the requirements of 40 CFR 97 Subpart CCCCC and 40 CFR Part 75, including the requirement to use substitute data.

I. The Administrator will notify the designated representative of any determination that the quarterly report fails to meet any such requirements and specify in such notification any corrections that the Administrator believes are necessary to make through resubmission of the quarterly report and a reasonable time period within which the designated representative must respond. Upon request by the designated representative, the Administrator may specify reasonable extensions of such time period. Within the time period (including any such extensions) specified by the Administrator, the designated representative shall resubmit the quarterly report with the corrections specified by the Administrator, except to the extent the designated representative provides information demonstrating that a specified correction is not necessary because the quarterly report already meets the requirements of 40 CFR 97 Subpart CCCCC and 40 CFR Part 75 that are relevant to the specified correction.

II. Any resubmission of a quarterly report shall meet the requirements applicable to the submission of a quarterly report under 40 CFR 97 Subpart CCCCC and 40 CFR Part 75, except for the deadline set forth in 40 CFR 97.634(d)(2).

xv. Pursuant to 40 CFR 97.634(e), the designated representative shall submit to the Administrator a compliance certification (in a format prescribed by the Administrator) in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification shall state that:

A. The monitoring data submitted were recorded in accordance with the applicable requirements of 40 CFR 97 Subpart CCCCC and 40 CFR Part 75, including the quality assurance procedures and specifications; and

B. For a unit with add-on $SO_2$ emission controls and for all hours where $SO_2$ data are substituted in accordance with 40 CFR 75.34(a)(1), the add-on emission controls were operating within the range of parameters listed in the quality assurance/quality control program under appendix B to 40 CFR Part 75 and the substitute data values do not systematically underestimate $SO_2$ emissions.

**e. <u>CSAPR $NO_X$ Ozone Season Group 2 Trading Program Requirements (40 CFR 97 Subpart EEEEE)</u>**

Note: Illinois was previously classified as a CSAPR $NO_X$ Ozone Season Group 3 source under 40 CFR 52.38(b)(2)(iii)(A). However, as addressed in 40 CFR 52.38(b)(2)(iii)(D)(4), the effectiveness of 40 CFR 52.38(b)(2)(iii)(A) is stayed for sources in Illinois with regard to emissions occurring in 2024 and thereafter. While this stay is in effect for Illinois, Illinois shall be deemed not to be listed in 40 CFR 52.38(b)(2)(iii)(A) for purposes of 40 CFR Part 97 for a control period after 2023.

Note: As addressed in 40 CFR 52.38(b)(2)(ii)(D)(1)(i), while a stay under 40 CFR 52.38(b)(2)(iii)(D)(4) is in effect for the sources in Illinois with regard to emissions occurring in a control period in a given year, the provisions of 40 CFR 97 Subpart EEEEE shall apply to the sources in Illinois with regard to emissions occurring in such control period.

i. Pursuant to 40 CFR 97.806(a), 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.

ii. A. Pursuant to 40 CFR 97.806(c)(1)(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 source 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.

B. Pursuant to 40 CFR 97.806(c)(1)(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 40 CFR 97.806(c)(1)(i), then:

I. 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

II. 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 97 Subpart EEEEE and the Clean Air Act.

iii. A. Pursuant to 40 CFR 97.806(c)(2)(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 a State (and Indian country within the borders of such 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 group 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—

I. 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 (and Indian country within the borders of such 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

II. The amount by which total $NO_X$ emissions from all CSAPR $NO_X$ Ozone Season Group 2 units at CSAPR $NO_X$ Ozone Season Group 2 sources in the State (and Indian country

within the borders of such State) for such control period exceed the State assurance level.

B. Pursuant to 40 CFR 97.806(c)(2)(ii), the owners and operators shall hold the CSAPR $NO_X$ Ozone Season Group 2 allowances required under 40 CFR 97.806(c)(2)(i), 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.

C. Pursuant to 40 CFR 97.806(c)(2)(iii), total $NO_X$ emissions from all CSAPR $NO_X$ Ozone Season Group 2 units at CSAPR $NO_X$ Ozone Season Group 2 sources in a State (and Indian country within the borders of such 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).

D. Pursuant to 40 CFR 97.806(c)(2)(iv), it shall not be a violation of this subpart or of the Clean Air Act if total $NO_X$ emissions from all CSAPR $NO_X$ Ozone Season Group 2 units at CSAPR $NO_X$ Ozone Season Group 2 sources in a State (and Indian country within the borders of such 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 $NO_X$ Ozone Season Group 2 units at CSAPR $NO_X$ Ozone Season Group 2 sources in a State (and Indian country within the borders of such State) during a control period exceeds the common designated representative's assurance level.

E. Pursuant to 40 CFR 97.806(c)(2)(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 40 CFR 97.806(c)(2)(i) through (iii),

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

II. Each CSAPR $NO_X$ Ozone Season Group 2 allowance that the owners and operators fail to hold for such control period in accordance with 40 CFR 97.806(c)(2)(i) through (iii) and each day of such control period shall constitute a separate violation of 40 CFR 97 Subpart EEEEE and the Clean Air Act.

iv. A. Pursuant to 40 CFR 97.806(c)(3)(i), a CSAPR $NO_X$ Ozone Season Group 2 unit shall be subject to the requirements under 40 CFR 97.806(c)(1) and (2) 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.

v. A. Pursuant to 40 CFR 97.806(c)(4)(i), a CSAPR $NO_X$ Ozone Season Group 2 allowance held for compliance with the requirements under 40 CFR 97.806(c)(1)(i) 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.

B. Pursuant to 40 CFR 97.806(c)(4)(ii), a CSAPR $NO_X$ Ozone Season Group 2 allowance held for compliance with the requirements under 40 CFR 97.806(c)(1)(ii)(A) and 40 CFR 97.806(c)(2)(i) through (iii) 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.

C. Pursuant to 40 CFR 97.806(c)(4)(iii), except as provided in 40 CFR 97.806(c)(4)(iv), a CSAPR $NO_X$ Ozone Season Group 2 allowance held for compliance with the requirements under 40 CFR 97.806(c)(1)(i), (c)(1)(ii)(A), and (c)(2)(i) through (iii) must be a CSAPR $NO_X$ Ozone Season Original Group 2 allowance.

D. Pursuant to 40 CFR 97.806(c)(4)(iv), a CSAPR $NO_X$ Ozone Season Group 2 allowance held for compliance with the requirements under 40 CFR 97.806(c)(1)(i), (c)(1)(ii)(A), and (c)(2)(i) through (iii) for a source or group of sources in a State listed in 40 CFR 52.38(b)(2)(ii)(D)(1) (and Indian country within the borders of such a State) for a control period after 2022 must be a CSAPR $NO_X$ Ozone Season Expanded Group 2 allowance.

vi. Pursuant to 40 CFR 97.806(c)(5), 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 97 Subpart EEEEE.

vii. Pursuant to 40 CFR 97.806(c)(6), 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:

A. Such authorization shall only be used in accordance with the CSAPR $NO_X$ Ozone Season Group 2 Trading Program; and

B. Notwithstanding any other provision of 40 CFR 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.

viii. Pursuant to 40 CFR 97.806(c)(7), a CSAPR $NO_X$ Ozone Season Group 2 allowance does not constitute a property right.

ix. A. Pursuant to 40 CFR 97.806(f)(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.

B. Pursuant to 40 CFR 97.806(f)(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 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.

x. Pursuant to 40 CFR 97.806(g), 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.

xi. Pursuant to 40 CFR 97.830(d)(2), no owner or operator of a CSAPR $NO_X$ Ozone Season Group 2 unit shall operate the unit so as to discharge, or allow to be discharged, $NO_X$ to the atmosphere without accounting for all such $NO_X$ in accordance with the applicable provisions of 40 CFR 97 Subpart EEEEE and 40 CFR Part 75.

xii. Pursuant to 40 CFR 97.830(e), the owner or operator of a CSAPR $NO_X$ Ozone Season Group 2 unit is subject to the applicable provisions of 40 CFR 75.4(d) concerning units in long-term cold storage.

**f. Compliance Method (CSAPR $NO_X$ Ozone Season Group 2 Trading Program)**

i. A. Pursuant to 40 CFR 97.806(b)(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.

B. Pursuant to 40 CFR 97.806(b)(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 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 40 CFR 97.806(c), 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.

ii. Pursuant to 40 CFR 97.830, the owners and operators, and to the extent applicable, the designated representative, of a CSAPR $NO_X$ Ozone Season Group 2 unit, shall comply with the monitoring, recordkeeping, and reporting requirements as provided in 40 CFR 97 Subpart EEEEE and 40 CFR 75 Subpart H. For purposes of applying such requirements, the definitions in 40 CFR 97.802 and in 40 CFR 72.2 shall apply, the terms "affected unit," "designated representative," and "continuous emission monitoring system" (or "CEMS") in 40 CFR Part 75 shall be deemed to refer to the terms "CSAPR $NO_X$ Ozone Season Group 2 unit," "designated representative," and "continuous emission monitoring system" (or "CEMS") respectively as defined in 40 CFR 97.802, and the term "newly affected unit" shall be deemed to mean "newly affected CSAPR $NO_X$ Ozone Season Group 2 unit". The owner or operator of a unit that is not a CSAPR $NO_X$ Ozone Season Group 2 unit but that is monitored under 40 CFR 75.72(b)(2)(ii) shall comply with the same monitoring, recordkeeping, and reporting requirements as a CSAPR $NO_X$ Ozone Season Group 2 unit.

Monitoring

iii. Pursuant to 40 CFR 97.830(a), the owner or operator of each CSAPR $NO_X$ Ozone Season Group 2 unit shall:

A. Install all monitoring systems required under 40 CFR 97 Subpart EEEEE for monitoring $NO_X$ mass emissions and individual unit heat input (including all systems required to monitor $NO_X$ emission rate, $NO_X$ concentration, stack gas moisture content, stack gas flow rate, $CO_2$ or $O_2$ concentration, and fuel flow rate, as applicable, in accordance with 40 CFR 75.71 and 75.72);

B. Successfully complete all certification tests required under 40 CFR 97.831 and meet all other requirements of 40 CFR 97 Subpart EEEEE and 40 CFR Part 75 applicable to the monitoring systems under 40 CFR 97.830(a)(1); and

C. Record, report, and quality-assure the data from the monitoring systems under 40 CFR 97.831(a)(1).

iv. Pursuant to 40 CFR 97.830(d)(3), no owner or operator of a CSAPR $NO_X$ Ozone Season Group 2 unit shall disrupt the continuous emission monitoring system, any portion thereof, or any other approved emission monitoring method, and thereby avoid monitoring and recording $NO_X$ mass discharged into the atmosphere or heat input, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of 40 CFR 97 Subpart EEEEE and 40 CFR Part 75.

v. Pursuant to 40 CFR 97.830(d)(4), no owner or operator of a CSAPR $NO_X$ Ozone Season Group 2 unit shall retire or permanently discontinue use of the continuous emission monitoring system, any component thereof, or any other approved monitoring system under 40 CFR 97 Subpart EEEEE, except under any one of the following circumstances:

A. During the period that the unit is covered by an exemption under 40 CFR 97.805 that is in effect;

B. The owner or operator is monitoring emissions from the unit with another certified monitoring system approved, in accordance with the applicable provisions of 40 CFR 97 Subpart EEEEE and 40 CFR Part 75, by the Administrator for use at that unit that provides emission data for the same pollutant or parameter as the retired or discontinued monitoring system; or

C. The designated representative submits notification of the date of certification testing of a replacement monitoring system for the retired or discontinued monitoring system in accordance with 40 CFR 97.831(d)(3)(i).

vi. A. Pursuant to 40 CFR 97.832(a), whenever any monitoring system fails to meet the quality-assurance and quality-control requirements or data validation requirements of 40 CFR Part 75, data shall be substituted using the applicable missing data procedures in 40 CFR Subpart D or Subpart H, or appendix D or appendix E to 40 CFR Part 75.

B. Pursuant to 40 CFR 97.832(b), whenever both an audit of a monitoring system and a review of the initial certification or recertification application reveal that any monitoring system should not have been certified or recertified because it did not meet a particular performance specification or other requirement under 40 CFR 97.831 or the applicable provisions of 40 CFR Part 75, both at the time of the initial certification or recertification application submission and at the time of the audit, the Administrator will issue a notice of disapproval of the certification status of such monitoring system. For the purposes of this paragraph, an audit shall be either a field audit or an audit of any information submitted to the Administrator or any State or permitting authority. By issuing the notice of disapproval, the Administrator revokes prospectively the certification status of the monitoring system. The data measured and recorded by the monitoring system shall not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status until the date and time that the owner or operator completes subsequently approved initial certification or recertification tests for the monitoring system. The owner or operator shall follow the applicable initial certification or recertification procedures in 40 CFR 97.831 for each disapproved monitoring system..

Recordkeeping

vii. Pursuant to 40 CFR 97.806(e)(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.

A. 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.

B. All emissions monitoring information, in accordance with 40 CFR 97 Subpart EEEEE.

C. 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.

viii. Pursuant to 40 CFR 97.834(a), the designated representative shall comply with all recordkeeping and reporting requirements in 40 CFR 97.834(b) through (e), the applicable recordkeeping and reporting requirements under 40 CFR 75.73, and the requirements of 40 CFR 97.814(a).

ix. Pursuant to 40 CFR 97.834(b), the owner or operator of a CSAPR $NO_X$ Ozone Season Group 2 unit shall comply with the requirements of 40 CFR 75.73(c) and (e).

Reporting

x. Pursuant to 40 CFR 97.806(e)(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.

xi. Pursuant to 40 CFR 97.830(c), the owner or operator of a CSAPR $NO_X$ Ozone Season Group 2 unit that does not meet the applicable compliance date set forth in 40 CFR 97.830(b) for any monitoring system under 40 CFR 97.830(a)(1) shall, for each such monitoring system, determine, record, and report maximum potential (or, as appropriate, minimum potential) values for $NO_X$ concentration, $NO_X$ emission rate, stack gas flow rate, stack gas moisture content, fuel flow rate, and any other parameters required to determine $NO_X$ mass emissions and heat input in accordance with 40 CFR 75.31(b)(2) or (c)(3), section 2.4 of appendix D to 40 CFR Part 75, or section 2.5 of appendix E to 40 CFR Part 75, as applicable.

xii. Pursuant to 40 CFR 97.833, the designated representative of a CSAPR $NO_X$ Ozone Season Group 2 unit shall submit written notice to the Administrator in accordance with 40 CFR 75.61.

xiii. Pursuant to 40 CFR 97.834(c), the designated representative shall submit an application to the Administrator within 45 days after completing all initial certification or recertification tests required under 40 CFR 97.831, including the information required under 40 CFR 75.63.

xiv. Pursuant to 40 CFR 97.834(d), the designated representative shall submit quarterly reports, as follows:

A. I. If a CSAPR $NO_X$ Ozone Season Group 2 unit is subject to the Acid Rain Program or the CSAPR $NO_X$ Annual Trading Program or if the owner or operator of such unit chooses to report on an annual basis under 40 CFR 97 Subpart EEEEE, then the designated

representative shall meet the requirements of 40 CFR 75 Subpart H (concerning monitoring of $NO_X$ mass emissions) for such unit for the entire year and report the $NO_X$ mass emissions data and heat input data for such unit for the entire year.

II. If a CSAPR $NO_X$ Ozone Season Group 2 unit is not subject to the Acid Rain Program or the CSAPR $NO_X$ Annual Trading Program, then the designated representative shall either:

1. Meet the requirements of 40 CFR 75 Subpart H for such unit for the entire year and report the $NO_X$ mass emissions data and heat input data for such unit for the entire year in accordance with 40 CFR 97.834(d)(1)(i); or

2. Meet the requirements of 40 CFR 75 Subpart H (including the requirements in 40 CFR 75.74(c)) for such unit for the control period and report the $NO_X$ mass emissions data and heat input data (including the data described in 40 CFR 75.74(c)(6)) for such unit only for the control period of each year.

B. The designated representative shall report the $NO_X$ mass emissions data and heat input data for a CSAPR $NO_X$ Ozone Season Group 2 unit, in an electronic quarterly report in a format prescribed by the Administrator, for each calendar quarter indicated under 40 CFR 97.834(d)(1) beginning by the latest of:

I. 1. The calendar quarter covering May 1, 2017, through June 30, 2017, for a unit other than a unit described in 40 CFR 97.834(d)(2)(i)(B) or (C);

2. The calendar quarter covering May 1, 2024, through June 30, 2024, for a unit in a State listed in 40 CFR 52.38(b)(2)(iii)(D)(4) (and Indian country within the borders of such a State) that did not commence commercial operation at least 180 calendar days before September 30, 2020;

II. The calendar quarter corresponding to the earlier of the date of provisional certification or the applicable deadline for initial certification under 40 CFR 97.830(b); or

III. For a unit that reports on a control period basis under 40 CFR 97.834(d)(1)(ii)(B), if the calendar quarter under 40 CFR 97.834 (d)(2)(ii) does not include a month from May through September, the calendar quarter covering May 1 through June 30 immediately after the calendar quarter under 40 CFR 97.834(d)(2)(ii).

C. The designated representative shall submit each quarterly report to the Administrator within 30 days after the end of the calendar quarter covered by the report. Quarterly reports shall be submitted in the manner specified in 40 CFR 75.73(f).

D. For CSAPR $NO_X$ Ozone Season Group 2 units that are also subject to the Acid Rain Program, CSAPR $NO_X$ Annual Trading Program, CSAPR $SO_2$ Group 1 Trading Program, or CSAPR $SO_2$ Group 2 Trading Program, quarterly reports shall include the applicable data and information required by 40 CFR 75 Subparts F through H as applicable, in addition to the $NO_X$ mass emission data, heat input data, and other information required by 40 CFR 97 Subpart EEEEE.

E. The Administrator may review and conduct independent audits of any quarterly report in order to determine whether the quarterly report meets the requirements of 40 CFR 97 Subpart EEEEE and 40 CFR Part 75, including the requirement to use substitute data.

I. The Administrator will notify the designated representative of any determination that the quarterly report fails to meet any such requirements and specify in such notification any corrections that the Administrator believes are necessary to make through resubmission of the quarterly report and a reasonable time period within which the designated representative must respond. Upon request by the designated representative, the Administrator may specify reasonable extensions of such time period. Within the time period (including any such extensions) specified by the Administrator, the designated representative shall resubmit the quarterly report with the corrections specified by the Administrator, except to the extent the designated representative provides information demonstrating that a specified correction is not necessary because the quarterly report already meets the requirements of 40 CFR 97 Subpart EEEEE and 40 CFR Part 75 that are relevant to the specified correction.

II. Any resubmission of a quarterly report shall meet the requirements applicable to the submission of a quarterly report under 40 CFR Subpart EEEEE and 40 CFR Part 75, except for the deadline set forth in 40 CFR 97.834(d)(3).

xv. Pursuant to 40 CFR 97.834(e), the designated representative shall submit to the Administrator a compliance certification (in a format prescribed by the Administrator) in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the unit's emissions are correctly and fully monitored. The certification shall state that:

A. The monitoring data submitted were recorded in accordance with the applicable requirements of 40 CFR 97 Subpart EEEEE and 40 CFR Part 75, including the quality assurance procedures and specifications;

B. For a unit with add-on $NO_X$ emission controls and for all hours where $NO_X$ data are substituted in accordance with 40 CFR 75.34(a)(1), the add-on emission controls were operating within the range of parameters listed in the quality assurance/quality control program under appendix B to 40 CFR Part 75 and the substitute data values do not systematically underestimate $NO_X$ emissions; and

C. For a unit that is reporting on a control period basis under 40 CFR 97.834(d)(1)(ii)(B), the $NO_X$ emission rate and $NO_X$ concentration values substituted for missing data under 40 CFR 75 Subpart D are calculated using only values from a control period and do not systematically underestimate $NO_X$ emissions.

## 8. Mandatory Greenhouse Gas Reporting – 40 CFR 98 Subpart C

### a. i. 40 CFR 98 Subpart C Requirements

A. Pursuant to 40 CFR 98.32, the Permittee shall meet the applicable GHG reporting requirements for the source.

B. Pursuant to 40 CFR 98.33, the Permittee shall meet the applicable GHG emissions calculation requirements for the source.

C. Pursuant to 40 CFR 98.34, the Permittee shall meet the applicable monitoring and QA/QC requirements for the source.

D. Pursuant to 40 CFR 98.35, the Permittee shall meet the applicable missing data estimation requirements for the source.

E. Pursuant to 40 CFR 98.36, the Permittee shall meet the applicable data reporting requirements for the source.

F. Pursuant to 40 CFR 98.37, the Permittee shall meet the applicable recordkeeping requirements for the source.

## Section 8 – State Only Requirements

### 1. Permitted Emissions for Purposes of Fees

Emission limitations are not set for this source for the purpose of permit fees. The Permittee shall pay the maximum fee, pursuant to Section 39.5(18)(a)(ii)(A) of the Act.

### 2. 35 IAC Part 225 Subpart B: Control of Mercury Emissions from Coal-Fired Electric Generating Units

In addition to the requirements in Section 4.1 of this permit for the coal-fired boilers, the Permittee shall also comply with the following applicable State Only requirements pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

**a. <u>35 IAC 225 Subpart B Requirements</u>**

i. Pursuant to 35 IAC 225.210(c), the Permittee must comply with applicable requirements for control of mercury emissions of 35 IAC 225.230.

ii. Pursuant to 35 IAC 225.230(a)(1), the Permittee must comply with one of the following standards for each EGU on a rolling 12-month basis:

A. Pursuant to 35 IAC 225.230(a)(1)(A), an emission standard of 0.0080 lb mercury/GWh gross electrical output; or

B. Pursuant to 35 IAC 225.230(a)(1)(B), a minimum 90-percent reduction of input mercury.

iii. Pursuant to 35 IAC 225.230(a)(2), the mercury emission rate during quality-assured monitor operating (QAMO) hours of each coal-fired boiler for each 12-month rolling period, as monitored in accordance with 35 IAC 225 Subpart B and calculated as follows, must not exceed the applicable emission standard:

$$ER = \sum_{i=1}^{12} E_i \div \sum_{i=1}^{12} O_i$$

Where:

ER = Mercury emissions rate of the coal-fired boiler during QAMO hours for the particular 12-month rolling period, expressed in lb/GWh.

Ei = Mercury emissions of the coal-fired boiler during QAMO hours, in lbs, in an individual month in the 12-month rolling period, as determined in accordance with the emissions monitoring provisions of 35 IAC 225 Subpart B.

Oi = Gross electrical output of the coal-fired boiler during QAMO hours, in GWh, in an individual month in the 12-month rolling period, as determined in accordance with 35 IAC 225.263.

iv. Pursuant to 35 IAC 225.240(d)(2), the Permittee may not operate either coal-fired boiler so as to discharge, or allow to be discharged, mercury emissions to the atmosphere without accounting for such emissions in accordance with the applicable provisions of 35 IAC 225.240, 35 IAC 225.250 through

225.290, and 35 IAC 225 Appendix B Sections 1.14 through 1.18, unless demonstrating compliance pursuant to 35 IAC 225.239, as applicable.

b. Compliance Method (35 IAC 225 Subpart B Requirements)

i. Pursuant to 35 IAC 225.210(b)(2), except as otherwise indicated in 35 IAC 225 Subpart B, the compliance of each coal-fired boiler with the mercury requirements of 35 IAC 225.230 and 225.237 must be determined by the emissions measurements recorded and reported in accordance with 35 IAC 225.240 through 225.290.

ii. Pursuant to 35 IAC 225.210(e)(1), the Permittee must meet the requirements of 35 IAC 225 Subpart B.

iii. Pursuant to 35 IAC 225.210(e)(2), any provision of 35 IAC 225 Subpart B that applies to a source must also apply to the owner and operator of such source and to the owner or operator of each coal-fired boiler at the source.

iv. Pursuant to 35 IAC 225.210(e)(3), any provision of 35 IAC 225 Subpart B that applies to a coal-fired boiler must also apply to the owner or operator of such coal-fired boiler.

v. Pursuant to 35 IAC 225.210(f), effect on Other Authorities. No provision of 35 IAC 225 Subpart B may be construed as exempting or excluding the Permittee from compliance with any other provision of an approved State Implementation Plan, a permit, the Act, or the CAA.

vi. Pursuant to 35 IAC 225.240, except as otherwise indicated in 35 IAC 225 Subpart B, the Permittee must comply with the monitoring, recordkeeping, and reporting requirements as provided in 35 IAC 225.240, 35 IAC 225.250 through 225.290, and 35 IAC 225 Appendix B Sections 1.14 through 1.18.

Monitoring

vii. Pursuant to 35 IAC 225.202, mercury must be measured by continuous emission monitoring pursuant to 35 IAC 225 Appendix B.

viii. Pursuant to 35 IAC 225.210(b)(1), except as otherwise indicated in 35 IAC 225 Subpart B, the Permittee must comply with the monitoring requirements of 35 IAC 225.240 through 225.290.

ix. Pursuant to 35 IAC 225.240(a)(1), the Permittee must install all monitoring systems required pursuant to 35 IAC 225.240 and 35 IAC 225.250 through 225.290 for monitoring mercury mass emissions (including all systems required to monitor mercury concentration, stack gas moisture content, stack gas flow rate, and $CO_2$ or $O_2$ concentration, as applicable, in accordance with 35 IAC 225 Appendix B Sections 1.15 and 1.16).

x. Pursuant to 35 IAC 225.240(d)(3), the Permittee may not disrupt the CEMS (or excepted monitoring system), any portion thereof, or any other approved emission monitoring method, and thereby avoid monitoring and recording mercury mass emissions discharged into the atmosphere, except for periods of recertification or periods when calibration, quality assurance testing, or maintenance is performed in accordance with the applicable provisions of 35 IAC 225.240, 35 IAC 225.250 through 225.290, and 35 IAC 225 Appendix B Sections 1.14 through 1.18.

xi. Pursuant to 35 IAC 225.240(d)(4), the Permittee may not retire or permanently discontinue use of the CEMS (or excepted monitoring system) or any component thereof, or any other approved monitoring system pursuant to 35 IAC 225 Subpart B, except under any one of the following circumstances:

A. Pursuant to 35 IAC 225.240(d)(4)(A), the Permittee is monitoring emissions from the coal-fired boiler with another certified monitoring system that has been approved, in accordance with the applicable provisions of 35 IAC 225.240, 35 IAC 225.250 through 225.290, and 35 IAC 225 Subpart B Sections 1.14 through 1.18, by the Illinois EPA for use at that coal-fired boiler and that provides emission data for the same pollutant or parameter as the retired or discontinued monitoring system; or

B. Pursuant to 35 IAC 225.240(d)(4)(B), the Permittee submits notification of the date of certification testing of a replacement monitoring system for the retired or discontinued monitoring system in accordance with 35 IAC 225.250(a)(3)(A).

C. Pursuant to 35 IAC 225.240(d)(4)(C), the Permittee is demonstrating compliance pursuant to the applicable subsections of 35 IAC 225.239.

xii. Pursuant to 35 IAC 225.260(a), out of control periods must be determined in accordance with 35 IAC 225 Appendix B Section 1.7.

xiii. Pursuant to 35 IAC 225.260(b), monitor data availability for all coal-fired boilers using a CEMS (or an excepted monitoring system) shall be greater than or equal to 75 percent; that is, quality assured data must be recorded by a certified primary monitor, a certified redundant or non-redundant backup monitor, or reference method for that unit at least 75 percent of the time the unit is in operation. Monitor data availability must be determined in accordance with 35 IAC 225 Appendix B Section 1.8 following initial certification of the required $CO_2$, $O_2$, flow monitor, or mercury concentration or moisture monitoring systems at a particular unit or stack location; monitor data availability shall be determined on a rolling 12-month average basis. Compliance with the percent reduction standard in 35 IAC 225.230(a)(1)(B), 225.233(d)(1)(B) or (d)(2)(B), 225.237(a)(1)(B), or 225.294(c)(2), or the emissions concentration standard in 35 IAC 225.230(a)(1)(A), 225.233(d)(1)(A) or (d)(2)(A), 225.237(a)(1)(A), or 225.294(c)(1), can only be demonstrated if the monitor data availability is equal to or greater than 75 percent.

xiv. Pursuant to 35 IAC 225.260(c), whenever both an audit of an emissions monitoring system and a review of the initial certification or recertification application reveal that any emissions monitoring system should not have been certified or recertified because it did not meet a particular performance specification or other requirement pursuant to 35 IAC 225.250 or the applicable provisions of 35 IAC 225 Appendix B, both at the time of the initial certification or recertification application submission and at the time of the audit, the Illinois EPA must issue a notice of disapproval of the certification status of such monitoring system. For the purposes of 35 IAC 225.260(c), an audit must be either a field audit or an audit of any information submitted to the Illinois EPA. By issuing the notice of disapproval, the Illinois EPA revokes prospectively the certification status of the emissions monitoring system. The data measured and recorded by the monitoring system shall not be considered valid quality-assured data from the date of issuance of the notification of the revoked certification status until the date and time that the Permittee completes subsequently approved initial certification or recertification tests for the monitoring system. The Permittee shall follow the applicable initial certification or recertification procedures in 35 IAC 225.250 for each disapproved monitoring system.

xv. Pursuant to 35 IAC 225.261, when monitoring mercury mass emissions using a mercury concentration monitoring system and a flow monitoring system, the Permittee must also monitor the heat input rate at the coal-fired boiler level using the procedures set forth in 35 IAC 225 Appendix B.

xvi. Pursuant to 35 IAC 225.263, when complying with 35 IAC 225 Subpart B by means of 35 IAC 225.230(a)(1) or using electrical output (Oi) and complying by means of 35 IAC 225.230(b) or (d) or 35 IAC 225.232, the Permittee must monitor gross electrical output of the associated generator(s) in MWh on an hourly basis.

Testing

xvii. Pursuant to 35 IAC 225.202, measurement of mercury must be according to:

A. ASTM D3173-03, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke (Approved April 10, 2003), incorporated by reference in 35 IAC 225.140.

B. ASTM D3684-01, Standard Test Method for Total Mercury in Coal by the Oxygen Bomb Combustion/Atomic Absorption Method (Approved October 10, 2001), incorporated by reference in 35 IAC 225.140.

C. ASTM D5865-04, Standard Test Method for Gross Calorific Value of Coal and Coke (Approved April 1, 2004), incorporated by reference in 35 IAC 225.140.

D. ASTM D6414-01, Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by Acid Extraction or Wet Oxidation/Cold Vapor Atomic Absorption (Approved October 10, 2001), incorporated by reference in 35 IAC 225.140.

E. ASTM D6722-01, Standard Test Method for Total Mercury in Coal and Coal Combustion Residues by Direct Combustion Analysis (2001), incorporated by reference in 35 IAC 225.140.

F. ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method) (Approved April 10, 2002), incorporated by reference in 35 IAC 225.140.

G. Emissions testing pursuant to USEPA Test Methods 29, 30A, and 30B in 40 CFR Part 60 Appendix A-8.

xviii. Pursuant to 35 IAC 225.240(a)(2), the Permittee must successfully complete all certification tests required pursuant to 35 IAC 225.250 and meet all other requirements 35 IAC 225.240, 35 IAC 225.250 through 225.290, and 35 IAC 225 Appendix B Sections 1.14 through 1.18 applicable to the monitoring systems required under 35 IAC 225.240(a)(1).

xix. Pursuant to 35 IAC 225.250(a)(2), the Permittee must comply with the following recertification procedures for a CEMS or an excepted monitoring system pursuant to 35 IAC 225 Appendix B Section 1.3 required by 35 IAC 225.240(a)(1). Whenever the Permittee makes a replacement, modification, or change in any certified CEMS, or an excepted monitoring system pursuant to 35 IAC 225 Appendix B Section 1.3, and required by 35 IAC 225.240(a)(1), that may significantly affect the ability of the system to accurately measure or record mercury mass emissions or heat input rate or to meet the quality-assurance and quality-control requirements of 35 IAC 225 Appendix B Section 1.5 or Exhibit B, the Permittee must recertify the monitoring system in accordance with 35 IAC 225 Appendix B Section 1.4(b). Furthermore, whenever the Permittee makes a replacement, modification, or change to the flue gas handling system or the coal-fired boiler's operation that may significantly change the stack flow or concentration profile, the Permittee must recertify each CEMS, and each excepted monitoring system pursuant to 35 IAC 225 Appendix B Section 1.3, whose accuracy is potentially affected by the change, all in accordance with 35 IAC 225 Appendix B Section 1.4(b). Examples of changes to a CEMS that require recertification include,

but are not limited to, replacement of the analyzer, complete replacement of an existing CEMS, or change in location or orientation of the sampling probe or site.

xx. Pursuant to 35 IAC 225.250(b)(2), the recertification provisions of 35 IAC 225.250 apply to an emissions monitoring system required by 35 IAC 225.240(a)(1) exempt from initial certification requirements pursuant to 35 IAC 225.250(a)(1).

Note: See Sections 2.3 and 7.1 for additional testing requirements.

Recordkeeping

xxi. Pursuant to 35 IAC 225.210(d), unless otherwise provided, the Permittee must keep on site at the source each of the documents listed in 35 IAC 225.210(d)(1) through (d)(3) for a period of five years from the date the document is created. This period may be extended, in writing by the Illinois EPA, for cause, at any time prior to the end of five years.

A. Pursuant to 35 IAC 225.210(d)(1), all emissions monitoring information gathered in accordance with 35 IAC 225.240 through 225.290 and all periodic emissions testing information gathered in accordance with 35 IAC 225.239.

B. Pursuant to 35 IAC 225.210(d)(2), copies of all reports, compliance certifications, and other submissions and all records made or required or documents necessary to demonstrate compliance with the requirements of 35 IAC 225 Subpart B.

C. Pursuant to 35 IAC 225.210(d)(3), copies of all documents used to complete a permit application and any other submission under 35 IAC 225 Subpart B.

xxii. Pursuant to 35 IAC 225.240(a)(3), the Permittee must record and assure the quality of the data from the monitoring systems required under 35 IAC 225.240(a)(1).

xxiii. Pursuant to 35 IAC 225.290:

A. Pursuant to 35 IAC 225.290(a)(1), except as otherwise indicated in 35 IAC 225 Subpart B, the Permittee must comply with all applicable recordkeeping requirements in 35 IAC 225.290 and with all applicable recordkeeping requirements of 35 IAC 225 Appendix B Section 1.18.

B. Pursuant to 35 IAC 225.290(a)(2), the Permittee must maintain records for each month identifying the emission standard in 35 IAC 225.230(a) or 225.237(a) with which it is complying or that is applicable for the coal-fired boiler and the following records related to the emissions of mercury that the coal-fired boiler is allowed to emit:

I. Pursuant to 35 IAC 225.290(a)(2)(B), when complying with 35 IAC 225 Subpart B by means of 35 IAC 225.230(a)(1)(A) or 225.237(a)(1)(A) or using electrical output to determine the allowable emissions of the coal-fired boiler, records of the daily and monthly gross electrical output (GWh), which must be kept in the file required pursuant to 35 IAC 225 Appendix B Section 1.18(a).

C. Pursuant to 35 IAC 225.290(a)(3)(A), the Permittee must maintain records of monthly emissions of mercury from each coal-fired boiler.

D. Pursuant to 35 IAC 225.290(a)(5), the Permittee must maintain the following records related to quality assurance activities conducted for emissions monitoring systems:

I. Pursuant to 35 IAC 225.290(a)(5)(A), the results of quarterly assessments conducted pursuant to 35 IAC 225 Appendix B Section 2.2 of Exhibit B; and

II. Pursuant to 35 IAC 225.290(a)(5)(B), daily/weekly system integrity checks pursuant to 35 IAC 225 Appendix B Section 2.6 of Exhibit B.

E. Pursuant to 35 IAC 225.290(a)(6), the Permittee must retain all records required by 35 IAC 225.290 at the source for a period of five years from the date the document is created and must make a copy of any record available to the Illinois EPA upon request. This period may be extended in writing by the Illinois EPA, for cause, at any time prior to the end of five years.

Reporting

xxiv. Pursuant to 35 IAC 225.240(a)(3), the Permittee must report and assure the quality of the data from the monitoring systems required under 35 IAC 225.240(a)(1).

xxv. Pursuant to 35 IAC 225.250(d), the Permittee must submit an application to the Illinois EPA within 45 days after completing all recertification tests required pursuant to 35 IAC 225.250, including the information required pursuant to 40 CFR 75.63, incorporated by reference in 35 IAC 225.140.

xxvi. Pursuant to 35 IAC 225.261, when reporting mercury mass emissions using a mercury concentration monitoring system and a flow monitoring system, the Permittee must also report the heat input rate at the coal-fired boiler level using the procedures set forth in 35 IAC 225 Appendix B.

xxvii. Pursuant to 35 IAC 225.270, the Permittee must submit written notice to the Illinois EPA according to the provisions in 40 CFR 75.61, incorporated by reference in 35 IAC 225.140, for each coal-fired boiler or group of coal-fired boiler's monitored at a common stack and each non-EGU monitored pursuant to 35 IAC 225 Appendix B Section 1.16(b)(2)(B).

xxviii. Pursuant to 35 IAC 225.290:

A. Pursuant to 35 IAC 225.290(a)(1), except as otherwise indicated in 35 IAC 225 Subpart B, the Permittee must comply with all applicable reporting requirements in 35 IAC 225.290 and with all applicable reporting requirements of 35 IAC 225 Appendix B Section 1.18.

B. Pursuant to 35 IAC 225.290(b), when using CEMS or excepted monitoring systems at any time during a calendar quarter, the Permittee must submit quarterly reports to the Illinois EPA as follows:

I. Pursuant to 35 IAC 225.290(b)(1), source information such as source name, source ID number, and the period covered by the report.

II. Pursuant to 35 IAC 225.290(b)(2), a list of all coal-fired boilers at the source that identifies the applicable Part 225 monitoring and reporting requirements with which each coal-fired boiler is complying for the reported quarter, including the coal-fired boilers listed in 35 IAC 225.290(b)(2)(A) and (B), which are excluded from 35 IAC 225.290(b)(3).

III. Pursuant to 35 IAC 225.290(b)(3), for only those coal-fired boilers using CEMS or excepted monitoring systems at any time during a calendar quarter:

1. Pursuant to 35 IAC 225.290(b)(3)(A), an indication of whether the identified coal-fired boilers were in compliance with all applicable monitoring, recordkeeping, and reporting requirements of 35 IAC 225 for the entire reporting period.

2. Pursuant to 35 IAC 225.290(b)(3)(B), the total quarterly operating hours of each coal-fired boiler.

3. Pursuant to 35 IAC 225.290(b)(3)(C), the CEMS or excepted monitoring system QAMO hours on a quarterly basis and percentage data availability on a quarterly or rolling 12-month basis (for each concluding 12-month period in that quarter), as appropriate according to the schedule provided in 35 IAC 225.260(b). The data availability shall be determined in accordance with 35 IAC 225 Appendix B Section 1.8 (CEMS) or 1.9 (excepted monitoring system).

4. Pursuant to 35 IAC 225.290(b)(3)(G), the average monthly and quarterly mercury emission rate (in lb/GWh) for each coal-fired boiler, determined in accordance with 35 IAC 225.230(a)(2). Only those coal-fired boilers complying by means of 35 IAC 225.230(a)(1)(A), 225.233(d)(1)(A), 225.233(d)(2)(A) or 225.294(c)(1) are required to report the data in 35 IAC 225.290(b)(3)(G).

5. Pursuant to 35 IAC 225.290(b)(3)(H)(ii), the 12-month rolling average emission rate (in lb/GWh) for each month in the reporting period (or the rolling average control efficiency or emission rate for a lesser number of months if a full 12 months of data is not available).

6. Pursuant to 35 IAC 225.290(b)(3)(I), if the CEMS or excepted monitoring system percentage data availability was less than 95.0 percent of the total operating time for the coal-fired boiler, the date and time identifying each period during which the CEMS was inoperative, except for routine zero and span checks; the nature of CEMS repairs or adjustments and a summary of quality assurance data consistent with 35 IAC 225 Appendix B, i.e., the dates and results of the Linearity Tests and any RATAs during the quarter; a listing of any days when a required daily calibration was not performed; and the date and duration of any periods when the CEMS was unavailable or out-of-control as addressed by Section 225.260.

IV. Pursuant to 35 IAC 225.290(b)(4), the Permittee must submit each quarterly report to the Illinois EPA within 45 days following the end of the calendar quarter covered by the report, except that if the Permittee used an excepted monitoring system at any time during a calendar quarter must submit each quarterly report within 60 days following the end of the calendar quarter covered by the report.

C. Pursuant to 35 IAC 225.290(c), the Permittee must submit to the Illinois EPA a compliance certification in support of each quarterly report based on reasonable inquiry of those persons with primary responsibility for ensuring that all of the coal-fired boilers emissions are correctly and fully monitored. The certification must state:

I. Pursuant to 35 IAC 225.290(c)(1), that the monitoring data submitted were recorded in accordance with the applicable requirements of 35 IAC 225.290, Sections 225.240 through 225.270 and Section 225.290, and 35 IAC 225 Appendix B, including the quality assurance procedures and specifications; and

II. Pursuant to 35 IAC 225.290(c)(2), for a coal-fired boiler with add-on mercury emission controls, a flue gas desulfurization system, a selective catalytic reduction system, or a compact hybrid particulate collector system for all hours where mercury data is unavailable or out-of-control that:

1. Pursuant to 35 IAC 225.290(c)(2)(A), the mercury add-on emission controls, flue gas desulfurization system, selective catalytic reduction system, or compact hybrid particulate collector system was operating within the range of parameters listed in the quality assurance/quality control program pursuant to 35 IAC 225 Appendix B, Exhibit B; or

2. Pursuant to 35 IAC 225.290(c)(2)(B), with regard to a flue gas desulfurization system or a selective catalytic reduction system, quality-assured $SO_2$ emission data recorded in accordance with the 40 CFR 75 document that the flue gas desulfurization system was operating properly, or quality-assured NOx emission data recorded in accordance with the 40 CFR 75 document that the selective catalytic reduction system was operating properly, as applicable.

D. Pursuant to 35 IAC 225.290(d)(1), the Permittee shall submit to the Illinois EPA an Annual Certification of Compliance with 40 CFR 225 Subpart B no later than May 1 of each year and must address compliance for the previous calendar year. Such certification must be submitted to the Illinois EPA, Air Compliance Section, and the Air Regional Field Office.

E. Pursuant to 35 IAC 225.290(d)(2), Annual Certifications of Compliance must indicate whether compliance existed for each coal-fired boiler for each month in the year covered by the Certification and it must certify to that effect. In addition, for each coal-fired boiler, the Permittee must provide the following appropriate data as set forth in 35 IAC 225.290(d)(2)(A) through (d)(2)(E), together with the data set forth in 35 IAC 225.290(d)(2)(F):

I. Pursuant to 35 IAC 225.290(d)(2)(A), if complying with 35 IAC 225 Subpart B by means of 35 IAC 225.230(a)(1)(A) or 225.237(a)(1)(A):

1. Pursuant to 35 IAC 225.290(d)(2)(A)(i), emissions rate during QAMO hours, in lb/GWh, for each 12-month rolling period ending in the year covered by the Certification;

2. Pursuant to 35 IAC 225.290(d)(2)(A)(ii), emissions during QAMO hours, in lbs, and gross electrical output, in GWh, for each 12-month rolling period ending in the year covered by the Certification; and

3. Pursuant to 35 IAC 225.290(d)(2)(A)(iii), emissions during QAMO hours, in lbs, and gross electrical output, in GWh, for each month in the year covered by the Certification and in the previous year.

II. Pursuant to 35 IAC 225.290(d)(2)(F), any deviations or exceptions each month and discussion of the reasons for such deviations or exceptions.

F. Pursuant to 35 IAC 225.290(d)(3), all Annual Certifications of Compliance required to be submitted must include the following certification by a responsible official:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

G. Pursuant to 35 IAC 225.290(e), for each coal-fired boiler, Permittee must promptly notify the Illinois EPA of deviations from requirements of 35 IAC 225 Subpart B. At a minimum, these notifications must include a description of such deviations within 30 days after discovery of the deviations, and a discussion of the possible cause of such deviations, any corrective actions, and any preventative measures taken.

H. Pursuant to 35 IAC 225.290(f), the Permittee must submit to the Illinois EPA, Air Compliance and Enforcement Section, the quality assurance RATA report for each coal-fired boiler or group of coal-fired boilers monitored at a common stack and each non-EGU pursuant to 35 IAC 225 Appendix B Section 1.16(b)(2)(B), within 45 days after completing a quality assurance RATA.

## 3. Climate and Equitable Jobs Act (CEJA)

In addition to the requirements in Section 4.1, the Permittee shall comply with the following applicable requirements, pursuant to Sections 39.5(7)(a), 39.5(7)(b), and 39.5(7)(d) of the Act.

**a. i. <u>Climate and Equitable Jobs Act (CEJA) GHG and Copollutant Requirements</u>**

Note: At the time of permit issuance, the source was in the category under Section 9.15(h) of the Act.

A. Pursuant to Section 9.15(l) of the Act, notwithstanding Sections 9.15(g) through (k-5) of the Act, large GHG-emitting units including EGUs may temporarily continue emitting greenhouse gases after any applicable deadline specified in Sections 9.15(g) through (k-5) of the Act if it has been determined, as described in Sections 9.15(l)(1) and (2) of the Act below, that ongoing operation of the EGU is necessary to maintain power grid supply and reliability or ongoing operation of large GHG-emitting unit that is not an EGU is necessary to serve as an emergency backup to operations. Up to and including the occurrence of an emission reduction deadline under Section 9.15(i) of the Act, all EGUs and large GHG-emitting units must comply with the following terms:

I. Pursuant to Section 9.15(l)(1) of the Act, if an EGU or large GHG-emitting unit that is a participant in a regional transmission organization intends to retire, it must submit documentation to the appropriate regional transmission organization by the appropriate deadline that meets all applicable regulatory requirements necessary to obtain approval to permanently cease operating the large GHG-emitting unit.

II. Pursuant to Section 9.15(l)(2) of the Act, if any EGU or large GHG-emitting unit that is a participant in a regional transmission organization receives notice that the regional transmission organization has determined that continued operation of the unit is required, the unit may continue operating until the issue identified by the regional

transmission organization is resolved. The owner or operator of the unit must cooperate with the regional transmission organization in resolving the issue and must reduce its emissions to zero, consistent with the requirements under Section 9.15(g), (h), (i), (j), (k), or (k-5) of the Act, as applicable, as soon as practicable when the issue identified by the regional transmission organization is resolved.

III. Pursuant to Section 9.15(l)(3) of the Act, any large GHG-emitting unit that is not a participant in a regional transmission organization shall be allowed to continue emitting GHGs after the zero-emission date specified in Section 9.15(g), (h), (i), (j), (k), or (k-5) of the Act, as applicable, in the capacity of an emergency backup unit if approved by the Illinois Commerce Commission.

ii. Prompt Reporting

A. Pursuant to Section 39.5(7)(f)(ii) of the Act, the Permittee shall promptly notify the IEPA, Air Compliance Section, within 30 days of deviations from applicable requirements as follows:

I. Requirements in Condition 8.3(a)(i).

B. Pursuant to Section 39.5(7)(b) of the Act, all such deviations shall be summarized and reported as part of the Semiannual Monitoring Report required by Condition 3.5(b).

C. Pursuant to Section 39.5(7)(b) of the Act, the Permittee shall notify the IEPA, Air Compliance Section, of all other deviations as part of the Semiannual Monitoring Report required by Condition 3.5(b).

D. Pursuant to Section 39.5(7)(b) of the Act, the deviation reports shall contain at a minimum the following information:

I. Date and time of the deviation.

II. Emission unit(s) and/or operation involved.

III. The duration of the event.

IV. Probable cause of the deviation.

V. Corrective actions or preventative measures taken.

E. Pursuant to Section 39.5(7)(b) of the Act, within 30 days of an exception event allowed under Section 9.15(l) of the Act, the Permittee shall submit to the Illinois EPA Bureau of Air Compliance Section, with a copy to the applicable Regional Transmission Organization, a Notice of Exception Event that provides the following information:

I. The unit committed;

II. The time the unit began operating;

III. The time the unit stopped operating; and

IV. The emissions attributable to this window of time.

**Attachment 1 – List of Emission Units at This Source**

| *Section* | *Emission Units* | *Description* |
|---|---|---|
| 4.1 | Coal-Fired Boilers Unit 1 and 2 | 7,450 MMBtu/hour each. These boilers each are controlled by Low NOX Burners, Selective Catalytic Reduction, Dry Electrostatic Precipitators, Wet Electrostatic Precipitators, Lime Injection, and Wet Flue Gas Desulfurization (Scrubber). Each boiler is monitored with PM, $SO_2$, $NO_X$, CO, Mercury, and $CO_2$ CEMS, an opacity COMS, a natural gas meter, heat input, and volumetric flow meters. |
| 4.2 | Bulk Material Handling, Processing, and Storage Operations | • Coal Handling/Processing Operations<br>• Limestone Handling/Processing Operations<br>• Waste Material Handling<br>• Fly Ash Handling Operations<br>• Bottom Ash Handling Operations<br>• Gypsum Handling Operations<br>• Material Storage<br>• Stacker Operations for Bottom Ash and Gypsum<br>• Storage Piles: Front-End Loader Transfer<br>• Load Out of Bottom Ash and Gypsum<br>• Storage Piles: Wind Erosion<br>• CCR Haul Roads<br>• Material Transfer and Mechanical and Truck Unloading & Loading at the Disposal Area & Transfer<br>• Handling of Cover Material, Placement of Materials & Wind Erosion at the Disposal Area and Placement of Material, Wind Erosion & Truck Loading at the Transfer Area<br>• Landfill Haul Roads |
| 4.3 | Cooling Towers 1 and 2 | Cooling towers equipped with drift eliminators to control emissions and water flowmeters for monitoring. |
| 4.4 | Auxiliary Boiler | Natural Gas-Fired Boiler, with Nominal Rated Heat Input Capacity of 245 Million Btu/Hr. This boiler has Low $NO_X$ Burners for emission control and a fuel meter for monitoring. |

**Attachment 2 - Acronyms and Abbreviations**

| | |
|---|---|
| acfm | Actual cubic feet per minute |
| Act | Illinois Environmental Protection Act [415 ILCS 5/1 et seq.] |
| AP-42 | Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711 |
| BACT | Best Available Control Technology |
| Btu | British thermal units |
| CAA | Clean Air Act [42 U.S.C. Section 7401 et seq.] |
| CAAPP | Clean Air Act Permit Program |
| CAM | Compliance Assurance Monitoring |
| CCA | Compliance Commitment Agreement |
| CCR | Coal Combustion Residuals (fly ash, bottom ash, and gypsum) |
| CDX | Central Data Exchange |
| CEDRI | Compliance and Emissions Data Reporting Interface |
| CEMS | Continuous Emission Monitoring System |
| CFR | Code of Federal Regulations |
| CISWI | Commercial Industrial Solid Waste Incinerator |
| CO | Carbon monoxide |
| $CO_2$ | Carbon dioxide |
| COMS | Continuous Opacity Monitoring System |
| CPMS | Continuous Parameter Monitoring System |
| CSAPR | Cross-State Air Pollution Rule |
| dscf | Dry standard cubic foot |
| dscm | Dry standard cubic meter |
| EGU | Electric utility steam generating unit |
| ERT | Electronic Reporting Tool |
| ESP | Electrostatic Precipitator |
| °F | Degrees Fahrenheit |
| FIP | Federal Implementation Plan |
| FPOP | Fugitive PM Operating Program |
| GACT | Generally Acceptable Control Technology |
| gal | Gallons |
| GHG | Greenhouse Gas |
| gr | Grains |
| HAP | Hazardous Air Pollutant |
| Hg | Mercury |
| HMIWI | Hospital Medical Infectious Waste Incinerator |
| hp | Horsepower |
| hr | Hour |
| $H_2S$ | Hydrogen Sulfide |

| | |
|---|---|
| IAC | Illinois Administrative Code |
| I.D. No. | Identification Number of source, assigned by IEPA |
| IEPA | Illinois Environmental Protection Agency |
| ILCS | Illinois Compiled Statutes |
| Illinois EPA | Illinois Environmental Protection Agency |
| kg | Kilogram |
| kW | Kilowatts |
| LAER | Lowest Achievable Emission Rate |
| lbs | Pounds |
| m | Meter |
| M | Thousand |
| MACT | Maximum Achievable Control Technology |
| MSHA | Mine Safety and Health Administration |
| MM | Million |
| mo | Month |
| mph | Miles per hour |
| MSSCAM | Major Stationary Sources Construction and Modification (Non-attainment New Source Review) |
| MW | Megawatts |
| NESHAP | National Emission Standards for Hazardous Air Pollutants |
| $NO_2$ | Nitrogen dioxide |
| $NO_x$ | Nitrogen oxides |
| NSPS | New Source Performance Standards |
| NSR | New Source Review |
| PB | Lead |
| PEMS | Predictive Emissions Monitoring System |
| PM | Particulate Matter |
| $PM_{2.5}$ | Particulate Matter with an aerodynamic diameter less than or equal to a nominal 2.5 microns as measured by applicable test or monitoring methods |
| $PM_{10}$ | Particulate Matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods |
| ppm | Parts per million |
| ppmv | Parts per million by volume |
| ppmw | Parts per million by weight |
| PSD | Prevention of Significant Deterioration |
| PSEU | Pollutant-Specific Emission Unit |
| psia | Pounds per square inch absolute |
| PTE | Potential To Emit |
| QA/QC | Quality Assurance and Quality Control |
| QIP | Quality Improvement Plan |
| RACT | Reasonable Available Control Technology |
| RMP | Risk Management Plan |
| scf | Standard cubic feet |

| | |
|---|---|
| SCR | Selective Catalytic Reduction |
| SDS | Safety Data Sheet |
| SIP | State Implementation Plan |
| $SO_2$ | Sulfur dioxide |
| T | Ton |
| T1 | Title I - identifies Title I conditions that have been carried over from an existing permit |
| T1N | Title I New - identifies Title I conditions that are being established in this permit |
| T1R | Title I Revised - identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit |
| USEPA | United States Environmental Protection Agency |
| VOM | Volatile Organic Material |
| WESP | Wet Electrostatic Precipitator |
| WFGD | Wet Flue Gas Desulfurization |
| yr | Year |

**Attachment 3 - Contact and Reporting Addresses**

| | |
|---|---|
| IEPA Compliance Section | Via USPS:<br>Illinois EPA, Bureau of Air<br>Compliance Section (MC 40)<br>2520 West Iles Ave<br>P.O. Box 19276<br>Springfield, IL 62794-9276<br><br>Via Other Means:<br>Illinois EPA, Bureau of Air<br>Compliance Section (MC 40)<br>2520 West Iles Ave<br>Springfield, IL 62704<br><br>Phone No.: 217-782-2113 |
| IEPA Stack Test Specialist | Illinois EPA, Bureau of Air<br>Compliance Section<br>Source Monitoring - Third Floor<br>9511 Harrison Street<br>Des Plaines, IL 60016<br><br>Phone No.: 847-294-4000 |
| IEPA Air Quality Planning Section | Via USPS:<br>Illinois EPA, Bureau of Air<br>AQPS (MC 39)<br>2520 West Iles Ave<br>P.O. Box 19276<br>Springfield, IL 62794-9276<br><br>Via Other Means:<br>Illinois EPA, Bureau of Air<br>AQPS (MC 39)<br>2520 West Iles Ave<br>Springfield, IL 62704<br><br>Phone No.: 217-782-2113 |
| IEPA Air Regional Field Operations Regional Office #3 | Illinois EPA, Bureau of Air<br>Regional Office #3<br>1101 Eastport Plaza Drive, Suite 100<br>Collinsville, IL 62234<br><br>Phone No.: 618-346-5120 |
| IEPA Permit Section | Via USPS:<br>Illinois EPA, Bureau of Air<br>Permit Section (MC 11)<br>2520 West Iles Ave<br>P.O. Box 19276<br>Springfield, IL 62794-9276<br><br>Via Other Means:<br>Illinois EPA, Bureau of Air<br>Permit Section (MC 11)<br>2520 West Iles Ave<br>Springfield, IL 62704<br><br>Phone No.: 217-785-1705 |
| USEPA Region 5 - Air Branch | USEPA (AR - 17J)<br>Air and Radiation Division<br>77 West Jackson Boulevard<br>Chicago, IL 60604<br><br>Phone No.: 312-353-2000 |

**Attachment 4 - Example Certification by a Responsible Official**

| ***SIGNATURE BLOCK*** |
|---|
| NOTE: THIS CERTIFICATION MUST BE SIGNED BY A RESPONSIBLE OFFICIAL. APPLICATIONS WITHOUT A SIGNED CERTIFICATION WILL BE DEEMED AS INCOMPLETE. |
| I CERTIFY UNDER PENALTY OF LAW THAT, BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION CONTAINED IN THIS APPLICATION ARE TRUE, ACCURATE AND COMPLETE. ANY PERSON WHO KNOWINGLY MAKES A FALSE, FICTITIOUS, OR FRAUDULENT MATERIAL STATEMENT, ORALLY OR IN WRITING, TO THE ILLINOIS EPA COMMITS A CLASS 4 FELONY. A SECOND OR SUBSEQUENT OFFENSE AFTER CONVICTION IS A CLASS 3 FELONY. (415 ILCS 5/44(H))<br><br>AUTHORIZED SIGNATURE:<br><br>BY: _____ _____<br>AUTHORIZED SIGNATURE TITLE OF SIGNATORY<br><br>_____ _____ / _____ / _____<br>TYPED OR PRINTED NAME OF SIGNATORY DATE |