Statement of Basis

For the Planned Issuance of a Revised Clean Air Act Permit Program (CAAPP) Permit Through Reopening and Significant Modification And a Revised Acid Rain Program Permit For:

Illinois Power Generating Company
Coffeen Power Station

Illinois EPA ID No. for the Source: 135803AAA
Federal ORIS* Code for the Source: 861
CAAPP Permit No.: 95090009

Permitting Authority:
Illinois Environmental Protection Agency
Bureau of Air, Permit Section

June 6, 2016

* Office of Regulatory Information Systems (ORIS)
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The purpose of this Statement of Basis is to discuss the development and legal basis for certain revisions to the Clean Air Act Permit Program (CAAPP)\(^1\) permit for the Coffeen Power Station (Coffeen) that are now planned. Through a reopening proceeding, certain revisions to the CAAPP permit for this source are planned to address applicable requirements under the Clean Air Act that are not addressed in the current CAAPP permit. This reopening proceeding and the resulting revisions to the CAAPP permit that are now planned would be the final step in the settlement of the previous permit appeal before the Illinois Pollution Control Board for the CAAPP permit that was initially issued by the Illinois EPA for this source. In addition, the Illinois EPA is planning to fully approve the Compliance Assurance Monitoring (CAM) Plans for the coal-fired boilers, which plans were only conditionally approved in the CAAPP permit for Coffeen that was issued by the Illinois EPA on October 17, 2013. Revisions are also planned to certain provisions of the CAAPP permit to reflect refinements made in the CAAPP permits for other coal-fired power plants in Illinois and to make other refinements now being requested by the Permittee.

This Statement of Basis also addresses the planned issuance of a revised Acid Rain Program Permit for the two coal-fired electrical generating units at Coffeen. This revised permit would take the place of the Acid Rain Permit that is Attachment 5 of the current CAAPP permit for the facility.

A Statement of Basis is a document that the Illinois EPA must prepare as part of the public comment period for the planned issuance, renewal or significant modification of a CAAPP permit. Statements of Basis are intended to aid the public in understanding the relevant facts and legal underpinnings of planned actions on CAAPP permits and the draft CAAPP permits that have been prepared by the Illinois EPA.\(^2\) In this instance, this Statement of Basis addresses the reopening of the CAAPP permit for the Coffeen Power Station that is planned by the Illinois EPA. The Illinois EPA must also prepare a Statement of Basis for a planned significant action on an Acid Rain Program permit.

This Statement of Basis is only explanatory in nature and is not enforceable. The Statement of Basis also does not shield the Permittee from enforcement actions or its responsibility to comply with existing or future applicable regulations. Nor does this Statement of Basis constitute a defense to a violation of the federal Clean Air Act, the Environmental Protection Act (Act) or implementing regulations thereunder.

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\(^1\) The Clean Air Act Permit Program (CAAPP) is Illinois’ operating permit program for sources of emissions pursuant to Title V of the federal Clean Air Act.

\(^2\) The Illinois EPA must prepare Statements of Basis pursuant to Section 39.5(8)(b) of Illinois’ Environmental Protection Act (Act). Along with the draft permit prepared for a public comment period, the Illinois EPA must prepare “... a statement that sets forth the legal and factual basis for the Draft CAAPP permit conditions, including references to the applicable statutory or regulatory provisions.” The Illinois EPA must also provide a copy of this statement to any person who requests it.
INTRODUCTION

The Coffeen Power Station (Coffeen) is a coal power plant with two coal-fired electrical generating units. The initial CAAPP\(^3\) permit for Coffeen was issued by the Illinois EPA in September 2005. The permit addressed the applicable emission standards and requirements that existed at the time the permit was issued.\(^4\) In a subsequent permit appeal to the Illinois Pollution Control Board, the applicability of certain legal requirements and the imposition of certain requirements for emission testing, monitoring recordkeeping and reporting in the CAAPP permit were challenged.\(^5\) In the years since the filing of the appeal, the initial permit was stayed in its entirety. The presence of the stay, which was a consequence of the Illinois administrative review process, prevented the initial permit from becoming effective. The earliest steps to advancing the development of an appropriate CAAPP permit for this source was to provide for the effectiveness of a CAAPP permit and the resolution of the permit appeal. These steps were completed on October 17, 2013, when a revised CAAPP permit was issued for Coffeen, and on November 21, 2013, when the Board granted a voluntary dismissal of the appeal by the Permittee. The CAAPP permit for Coffeen can and

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\(^3\) The Clean Air Act Permit Program (CAAPP) is the operating permit program established in Illinois for stationary sources of emissions that is required by Title V of the federal Clean Air Act (CA Act). Title V permits are a means of assembling and setting forth the various air pollution control requirements established under the CA Act for major sources of emissions and certain other sources in particular categories. Illinois’ CAAPP has been approved by USEPA as meeting the requirements for a Title V permit program. The CAAPP is administered by the Illinois EPA in conjunction with other state permitting programs for stationary sources of emissions. CAAPP permits contain conditions identifying the federal and state emission control requirements that apply to the various emission units at sources. They also contain detailed conditions establishing “monitoring”, including operating practices, emission testing, emissions monitoring, operational monitoring, recordkeeping and reporting, that subject sources must implement to confirm they are operating in compliance with applicable emission control requirements. The statutory authority for Illinois’s CAAPP is found at Section 39.5 of the Environmental Protection Act (Act). The CAAPP was given final full approval by USEPA on December 4, 2001 (see 66 FR 62946).

\(^4\) Coffeen is subject to a variety of federal and state emission standards and emission control requirements, which are the legal basis for the conditions in this CAAPP permit that limit emissions. Certain other requirements have their origin in construction permits issued for new or modified emission units at the source. The CAAPP itself identifies the legal basis for additional requirements such as periodic monitoring, reporting, and recordkeeping. The specific statutory and regulatory provisions that are the legal basis for the conditions in the CAAPP permit for this source are provided in the permit, as the origin and authority of conditions are also specified and referenced in the conditions of the permit. Conditions that have their origin in a construction permit are also identified. In this regard, the Illinois EPA’s practice in CAAPP permits is to identify requirements that are carried over from an earlier construction permit into a new or renewed CAAPP Permit as “TI” conditions (i.e., Title I conditions). Because the underlying authority for provisions in construction permits comes from Title I of the CA Act and their initial establishment in Title I Permits, the effectiveness of TI Conditions derives from Title I of the CA Act rather than being linked to Title V of the CA Act.

\(^5\) Illinois Power Generating Company was known as Ameren Energy Generating Company when the initial and revised CAAPP permits were issued. For simplicity, the Statement of Basis consistently refers to the company by its current name, Illinois Power Generating Company, or as the Permittee.
is now being brought up-to-date by the Illinois EPA through a permit reopening proceeding.

This Statement of Basis supports the revisions to the CAAPP permit for the Coffeen Power Station that are now planned by the Illinois EPA and for which a public comment period is required before any such revisions are made. Chapter 1 of this Statement of Basis provides historical background to the planned permitting actions. Chapter 2 provides the factual basis for these planned permit actions. Chapter 3 provides a narrative discussion for the specific changes that are planned to the CAAPP permit in the reopening proceeding so that the permit would address all applicable requirements under the Clean Air Act. Chapter 4 discusses permit changes, constituting significant modifications, that would be made in conjunction with the planned full approval of the Permittee’s Compliance Assurance Monitoring (CAM) Plans for the particulate matter (PM) emissions of the coal-fired boilers, including a review of the results of the emissions testing that was completed as required by the conditional approval of the CAM Plans. Chapter 5 discusses other planned significant modifications requested by the Permittee to reflect refinements made in the CAAPP permits for other coal-fired power plants in Illinois and other refinements to the permit now being requested by the Permittee.

This Statement of Basis also addresses the planned issuance of a revised Acid Rain Program Permit for the two coal-fired electrical generating units at Coffeen. This revised permit, which would take the place of the permit that is attached to the current CAAPP permit for Coffeen, is addressed in Chapter 6 of this Statement of Basis.

General background on the emission units at the Coffeen plant and requirements under the current CAAPP permit is provided in Chapter 7 of this Statement of Basis.
CHAPTER 1 – HISTORICAL AND LEGAL BACKGROUND TO THE PLANNED ACTIONS

1.1 Historical Background for the CAAPP Permit

Illinois Power Generating Company (the “Permittee”) owns a coal-fired electric power plant known as the Coffeen Power Station (“Coffeen”). This power plant is located at 134 CIPS Lane, Coffeen, Illinois. In addition to coal-fired boilers, this plant has ancillary equipment and operations, including coal handling, coal processing, fly ash handling, limestone and gypsum handling, an auxiliary boiler, an emergency diesel engine generator and gasoline storage.

The Permittee filed an application with the Illinois EPA on September 29, 1995 for a CAAPP permit for Coffeen. The application was assigned Application No. 95090009. Following a public comment period with opportunity for comments from the public and review of a proposed CAAPP permit by USEPA, the Illinois EPA issued a CAAPP permit for Coffeen on September 29, 2005.

On November 3, 2005, the Permittee petitioned Illinois’ Pollution Control Board (Board) for review of the CAAPP permit issued by the Illinois EPA for Coffeen. In particular, the Permittee challenged the inclusion of certain specific terms and conditions in this permit, as identified in the petition. The Permittee requested that the Board reverse and remand the permit to the Illinois EPA specifically for the purpose of removing said conditions or revising the permit as requested in the petition. The Permittee further requested that the Board recognize that the “issued” CAAPP Permit was not final and effective, pending a final decision from the Board, with issuance of an order staying the permit as a whole. On November 17, 2005, the Board accepted the Permittee’s appeal petition, and on February 16, 2006, the Board recognized that the issued CAAPP permit was stayed in its entirety as a matter of law.

The parties engaged in negotiations, which ultimately resulted in settlement. The Illinois EPA prepared a draft of a revised CAAPP permit that reflected the changes to the permit agreed to in settlement discussions and took the steps needed to process the draft revised permit. On September 20, 2012, the Board granted a joint motion to lift the stay of uncontested conditions, allowing the initial permit to go into effect, but with contested conditions remaining stayed. On October 17, 2013, the Illinois EPA issued a revised CAAPP permit for Coffeen that reflected the negotiated settlement of the appeal of the initial permit.

1.2 The Current CAAPP Permit Reopening Proceeding

In conjunction with the issuance of the current CAAPP permit, the Illinois EPA initiated a formal reopening of this permit under the CAAPP’s procedures for reopening, as authorized by Section 39.5(15)(a)(i) of the Act. This process began on September 25, 2012. The purpose of this reopening proceeding is to address additional requirements in the CAAPP permit, i.e., requirements under the Clean Air Act that have become applicable to Coffeen since the original permit issuance in 2005. For the coal-fired boilers, the following regulations...
have been identified as needing to be addressed in the reopening proceeding: Best Available Retrofit Technology (BART), the Illinois Mercury Rule (35 IAC Part 225); the Mercury and Air Toxics Standards (MATS), 40 CFR 63 Subpart UUUU; and the Cross-State Air Pollution Rule (CSAPR), 40 CFR Part 97 Subparts AAAAA, BBBBB and CCCCC. The applicable requirements set by construction permits issued since 2005 for projects at Coffeen are also being addressed in the reopening proceeding.

The permit revisions addressed by this permitting action are described in detail in Chapter 3 below. As provided by Section 39.5(15)(c) of the Act, proceedings for reopening a permit must adhere to the “same procedures” that apply to initial issuance of a CAAPP permit. These procedures include the preparation of a draft CAAPP permit and accompanying Statement of Basis, a public comment period and notice to the State of Missouri followed by opportunity for review by USEPA. In addition, a reopened permit does not provide for a comprehensive review of the permit, as would occur for an initial or renewed CAAPP permit, but instead only affects the parts of the permit addressed by the reopening.

As mentioned above, the planned revisions to the CAAPP permit have resulted in the preparation of a draft permit and this accompanying document. The planned revisions to the permit are being subjected to public participation and will then undergo review by USEPA in accordance with Sections 39.5(8)(a) and (9) of the Act. Unless the public comment period on this draft of a revised CAAPP permit is extended, the public comment period will close on July 6, 2016.

1.3 Planned Full Approval of the CAM Plan for PM Emissions of the Boilers

The Illinois EPA is also planning to issue a revised CAAPP permit for Coffeen that would fully approve the Permittee’s Compliance Assurance Monitoring (CAM) Plans for Coffeen’s coal-fired boilers for PM emissions. As discussed in Chapter 4 of this document, the Permittee has complied with all provisions of the conditional approval of the CAM Plans, including PM testing, data analysis and submission of an application for Significant Modification of the CAAPP permit to take final action on the CAM Plans. The Permittee submitted the application to Illinois EPA on April 11, 2014. The Illinois EPA has found that the CAM Plan submitted by the Permittee now fully satisfies the applicable requirements in 40 CFR 64.6. The Illinois EPA has also determined that the monitoring is sufficient to provide data that satisfy the requirements of 40 CFR Part 64 and confirms the appropriateness of the selected indicator ranges to satisfy 40 CFR 64.3(a)(2) and (3), as discussed in detail in Chapter 4 of this document. These planned revisions to the permit are also being subjected to public participation and review by affected States and will then undergo review by USEPA.

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8 Because Coffeen is located within 50 miles of the Illinois-Missouri border, the State of Missouri must also be provided with an opportunity to comment on the draft of the revised permit.
9 The draft Reopening of the CAAPP permit and this Statement of Basis have been posted on and are available at both, Illinois EPA and USEPA’s website: http://www.epa.state.il.us/public-notices/ http://www.epa.gov/reg5oair/permits/ilonline.html
1.4 Other Planned Revisions to Provisions of the CAAPP Permit

The Permittee has also submitted an application requesting certain revisions to the provisions of the CAAPP permit, including certain requirements for Periodic Monitoring in the current CAAPP permit. These revisions involve elements of Periodic Monitoring (i.e., requirements for emission testing, opacity observations, inspections, recordkeeping and reporting) that are not explicitly required by applicable rules but were previously determined by the Illinois EPA to be appropriate to ensure compliance with applicable substantive requirements in the permit. Based on further information and evaluation, the Illinois EPA has now determined that certain revisions to be these requirements are appropriate, as have now been requested by the source. These revisions would reflect refinements made in the CAAPP permits for other coal-fired power plants in Illinois and other substantive refinements to the provisions of the permit now being requested by the Permittee. The Illinois EPA has determined that it is appropriate to make these revisions to the CAAPP permit requested by the Permittee, as discussed in detail in Chapter 5 of this document.

These revisions would be made using the procedures for significant modification as they potentially involve significant changes in existing monitoring permit terms or conditions, or relaxation of reporting or recordkeeping requirements and do not qualify as either minor permit modifications or as administrative permit amendments. As provided by Section 39.5(14)(c)(iii) of the Act, proceedings for significant permit modifications must meet the same requirements that apply to initial issuance or renewal of a CAAPP permit, including public participation, review by affected States, and review by USEPA.

1.5 Parallel CAAPP Permitting Actions

In addition to the planned revisions to the CAAPP permit for Coffeen discussed above, the Illinois EPA is planning to make certain other revisions to the current CAAPP permit through the procedures for minor modifications and administrative amendment.

The additional revisions that will be addressed using the procedures for minor modification involve a variety of changes, including, among other things, those that do not cause significant changes to existing monitoring, reporting or recordkeeping, as provided for by Section 39.5(14)(a)(i)(B) of the Act. For permit revisions meeting the criteria for minor modification, the Illinois EPA is required to review the revisions using the CAAPP’s procedures for minor modifications. The revisions that will be made using the minor modification process are described in Attachment 1 of this Statement of Basis. The CAAPP does not provide for public participation on planned minor modifications of CAAPP permits. USEPA will be afforded a 45-day review period to comment on the proposed modifications, as provided for by Section 39.5(14)(a)(v) of the Act.

For permit revisions meeting the criteria for administrative amendment, the Illinois EPA is required to address the revisions using the procedures for administrative amendment of CAAPP permits. The revisions that will be made to the CAAPP permit using the procedures for administrative amendment are described in Attachment 2 of this Statement of Basis. The CAAPP does not provide for public participation on planned administrative amendments. A copy of the amended permit will be submitted to the USEPA following revision, as required by Section 39.5(13)(b) of the Act.
1.6 Changes to the Numbering of Conditions in the CAAPP Permit

The planned revisions to CAAPP permit would entail renumbering of a number of conditions of the permit. In this Statement of Basis, as the numbering of certain permit conditions would change with the planned revisions, those conditions are generally referred to using the new numbering of conditions, as laid out in the draft of the planned revised CAAPP permit. As the planned revisions would remove certain conditions from the CAAPP permit, those conditions are referred to as “current conditions”, using the numbering in the current CAAPP permit.

The renumbering of conditions of the CAAPP permit that would result from the planned revisions to the CAAPP permit will also necessitate certain revisions to internal cross-references in the permit. These revisions to internal cross-references due to addition or removal of conditions would be made. However, only some of these changes are individually identified in the Statement of Basis.

1.7 Issuance of a Revised Acid Rain Program Permit for the Coffeen Station

Under the federal Acid Rain Program, the Permittee has applied for a revised Acid Rain Permit for Coffeen. The purpose of the Acid Rain Program, which was established by Title IV of the Clean Air Act, is to achieve significant reductions in emissions of sulfur dioxide (SO₂) and nitrogen oxides (NOₓ) from fossil-fuel fired electrical generating units as related to the contribution of these emissions to acid rain. To achieve this objective for coal-fired power plants, the program employs a market-based approach to reduce SO₂ emissions and traditional emission standards for NOₓ emissions.

The Illinois EPA has determined that it is appropriate to issue a revised Acid Rain Program Permit for Coffeen, as discussed further in Chapter 6 of this document. The issuance of this revised Acid Rain Permit must also be subject to public participation and review by any affected States and then undergo review by USEPA. In addition, the revised Acid Rain Permit would take the place of the Acid Rain Permit that is included as Attachment 5 of the current CAAPP permit for Coffeen, also contributing to bringing the CAAPP Permit for Coffeen up to date. Accordingly, the Illinois EPA is processing the draft of this revised Acid Rain Program Permit at the same time as other planned revisions to the CAAPP permit pursuant to the reopening proceeding.
CHAPTER 2 - FACTUAL BASIS FOR THE PLANNED CAAPP PERMIT ACTIONS

2.1 Description of the Source

At the Coffeen Power Station, two coal-fired boilers are operated to generate electrical power. This facility is located at 134 CIPS Lane, Coffeen, Illinois. The area in which this facility is located has not been identified as posing a potential concern for consideration of Environmental Justice.

SIC Code: 4911
Location: Montgomery County

The revised CAAPP permit for Coffeen planned by the Illinois EPA would address the following emission units and operations at the facility, in addition to the insignificant activities that are present at this facility.

<table>
<thead>
<tr>
<th>Emission Unit(s)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emission Units Currently Addressed by the Permit</td>
<td></td>
</tr>
<tr>
<td>Coal Boiler 1 (CB-1)</td>
<td>Babcock &amp; Wilcox Boiler</td>
</tr>
<tr>
<td>Coal Boiler 2 (CB-2)</td>
<td>Babcock &amp; Wilcox Boiler</td>
</tr>
<tr>
<td>Coal Handling Equipment</td>
<td>Coal Receiving, Transfer and Storage Operations</td>
</tr>
<tr>
<td>Coal Processing Equipment</td>
<td>Coal Crushing Operations</td>
</tr>
<tr>
<td>Fly Ash Handling Equipment</td>
<td>Equipment for Handling and Loadout of Fly Ash from the Coal Boilers</td>
</tr>
<tr>
<td>Auxiliary Boiler</td>
<td>Oil-Fired Auxiliary Boiler</td>
</tr>
<tr>
<td>Gasoline Storage Tank</td>
<td>Gasoline Storage Tank - 1,000 Gallon</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional Emission Units to Be Addressed by the Planned Revised Permit</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Limestone and Gypsum Handling Equipment</td>
<td>Equipment for Handling Limestone and Gypsum (WFGD) Systems Installed on the Coal Boilers</td>
</tr>
<tr>
<td>Emergency Engine Generator</td>
<td>Emergency Diesel Engine Generator for WFGD Systems</td>
</tr>
</tbody>
</table>

2.2 Ambient Air Quality Status for the Area

Coffeen is located in an area that is currently designated attainment or unclassifiable for the National Ambient Air Quality Standards for all criteria pollutants, including nitrogen dioxide (NO₂), particulate matter₂.₅ (PM₂.₅), particulate matter₁₀ (PM₁₀), sulfur dioxide (SO₂), carbon monoxide (CO), ozone and lead. (See 40 CFR 81.314, Attainment Status Designations: Illinois)

2.3 Major Source Status

Coffeen requires a CAAPP permit because it is considered a major source for emissions of the following regulated pollutants: nitrogen oxides (NOₓ), volatile organic material (VOM), PM₁₀, PM₂.₅, SO₂, CO and hazardous air

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⁹⁰ PM₂.₅ and PM₁₀ are fine particles with aerodynamic diameters less than or equal to 2.5 and 10 microns, respectively.
pollutants (HAP). A major source of emissions is required to have a CAAPP permit by Section 39.5(2)(a)(i) of the Act.\textsuperscript{11}

Pursuant to Section 39.5(2)(a)(iii) of the Act, the facility also requires a CAAPP Permit as it is an “affected source” for the purposes of the federal Acid Rain Program established by Title IV of the Clean Air Act.

The actual annual emissions of regulated pollutants from Coffeen, as reported by the Permittee in its Annual Emission Reports submitted to the Illinois EPA, are provided below:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Reported Emissions (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2015</td>
</tr>
<tr>
<td>CO</td>
<td>710.83</td>
</tr>
<tr>
<td>NO\textsubscript{x}</td>
<td>1,615.07</td>
</tr>
<tr>
<td>PM</td>
<td>222.53</td>
</tr>
<tr>
<td>SO\textsubscript{2}</td>
<td>37.57</td>
</tr>
<tr>
<td>VOM</td>
<td>99.60</td>
</tr>
<tr>
<td>CO\textsubscript{2}</td>
<td>5,194,300.60</td>
</tr>
<tr>
<td>Mercury</td>
<td>0.0105</td>
</tr>
<tr>
<td>HCl</td>
<td>0.93</td>
</tr>
<tr>
<td>HF</td>
<td>3.82</td>
</tr>
</tbody>
</table>

\* Data for emissions of HCl and HF was not provided in 2012.

2.4 Fee Schedule

Coffeen’s permitted emissions of relevant pollutants for purposes of the annual site fees under the CAAPP are listed below:

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Permitted Emissions (Tons/Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VOM</td>
<td>307</td>
</tr>
<tr>
<td>SO\textsubscript{2}</td>
<td>660</td>
</tr>
<tr>
<td>PM</td>
<td>890</td>
</tr>
<tr>
<td>NO\textsubscript{x}</td>
<td>2,525</td>
</tr>
<tr>
<td>HAPs, not included in VOM or PM</td>
<td>60</td>
</tr>
<tr>
<td>Total</td>
<td>4,442</td>
</tr>
</tbody>
</table>

\textsuperscript{11} The source has voluntarily submitted data for actual emissions of GHGs from this source in its Annual Emission Reports (AER). However, Coffeen is not currently subject to any “applicable requirements”, as defined by Section 39.5(1) of the Act, for GHG emissions, as defined by 40 CFR 86.1818-12(a), as referenced by 40 CFR 52.21(b)(49)(i). There are no GHG-related requirements under the Clean Air Act, the Act, or Illinois’ SIP that apply to this source, including terms or conditions in a construction permit addressing GHG emissions or BACT for GHG emissions from a major project at this source under the PSD rules. In addition, the USEPA’s Mandatory Reporting Rule for GHG emissions, 40 CFR Part 98, does not constitute an “applicable requirement” because it was adopted under the authority of Sections 114(a)(1) and 208 of the Clean Air Act. The planned CAAPP permit would not relieve the source from its obligations for reporting under the Mandatory Reporting Rule.
2.5 Construction Permits

The construction permits listed below, issued since October 2005, were reviewed during the development of the draft of the revised CAAPP permit for Coffeen. Applicable conditions that originated in these construction permits are incorporated into the draft of the revised permit. Some of these permits were for new emission units, and applicable emission standards for these units are addressed in the revised permit. Applicability of CAM is also addressed for these new emissions units. For example, the new Wet Flue Gas Desulfurization (WFGD) systems for the coal boilers do not change requirements for these boilers, whose SO₂ emissions are now controlled by these systems. However, these systems on the coal boilers are supported by new equipment for handling limestone, which is the active ingredient in the scrubbers, and for handling gypsum, which is the byproduct from the scrubbers. In addition to State rules for particulate, this equipment is subject to emission standards under the federal New Source Performance Standards (NSPS) for Nonmetallic Mineral Processing Plants, 40 CFR 60 Subpart OOO. The applicable emission standards for this equipment are addressed in the draft of revised permit (new Section 7.5) along with the limits for particulate emissions of these units established by Construction Permit #06090019.

<table>
<thead>
<tr>
<th>Permit No.</th>
<th>Date Issued*</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>06090019</td>
<td>6/26/2012</td>
<td>Wet Flue Gas Desulfurization Systems</td>
</tr>
<tr>
<td>07090069</td>
<td>6/26/2012</td>
<td>ESP for Boiler 2</td>
</tr>
<tr>
<td>07110031</td>
<td>3/26/2008</td>
<td>New Fly Ash Handling System for ESP</td>
</tr>
<tr>
<td>07120051</td>
<td>3/26/2008</td>
<td>Emergency Generator for WFGD</td>
</tr>
<tr>
<td>08050053</td>
<td>8/26/2008</td>
<td>New Fly Ash Wet Mixing System (Pug Mill)</td>
</tr>
<tr>
<td>12070042</td>
<td>10/30/2012</td>
<td>Mercury Re-Emission Reduction System</td>
</tr>
</tbody>
</table>

* Date of most recent of revision if the permit has been revised.
CHAPTER 3 – PLANNED CHANGES TO THE CAAPP PERMIT THROUGH REOPENING

Introduction

The changes described below are planned to be made as part of the reopening proceeding for the CAAPP permit for Coffeen.  

Changes in Table of Contents

The following changes would be made to the Table of Contents to reflect changes that would be made in the body of the permit, as are discussed in detail later in this chapter.

5.9 - This condition addressing “Submittal of Information for Permit Reopening” would be removed.
6.1 - In the portion of the CAAPP permit that addresses requirements of regulatory programs that apply to the coal-fired boiler, the section addressing the “NOx Trading Program” would be removed and the section for the “Acid Rain Program” would be renumbered as Section 6.1.
6.2 - A new section addressing the Cross State Air Pollution Rule (CSAPR), also known as the Transport Rule (TR), would be added.
6.3 - A new section addressing applicable requirements in Illinois’ State Implementation Plan for Best Available Retrofit Technology (BART) would be added.
6.4 - A new section addressing the applicable requirements of 35 IAC 225 Subpart B would be added.
6.5 - A new section addressing the requirements of the Mercury and Air Toxics Standards or MATS Rule would be added.
7.5 - A new section would be added to the portion of the permit that addresses unit-specific requirements to address the Limestone and Gypsum Handling Equipment constructed to support the Wet Flue Gas Desulfurization (WFGD) systems installed on the two coal-fired boilers.
7.6 - The section for the “Auxiliary Boiler” would be renumbered due to the addition of Section 7.5 for Limestone and Gypsum Handling Equipment.
7.7 - A new section for the Emergency Diesel Engine Generator for the Wet Flue Gas Desulfurization (WFGD) Systems would be added.
7.8 - The section for the “Gasoline Storage Tank” would be renumbered due to the addition of Sections 7.5 and 7.7.

Changes in Section 2 of the Permit: List of Abbreviations and Acronyms used in this Permit

Condition 2.0

Additional abbreviations and acronyms that would be used in the revised CAAPP permit would be added to Condition 2.0, including ACI (Activated Carbon Injection), BART (Best Available Retrofit Technology), CAIR (Clean Air Interstate Rule), CSAPR (Cross-State Air Pollution Rule), DSI (Dry Sorbent Injection), FGD (Flue Gas Desulfurization), GWh (Gigawatt-Hour), MATS (Mercury

Pursuant to Section 39.5(14)(c) of the Act, “Proceedings regarding a reopened CAAPP permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists.”
And Air Toxics Standards), MWh (Megawatt-Hour), MRRS (Mercury Re-emission Reduction System), PM$_{2.5}$ (Particulate Matter$_{2.5}$), SCR (Selective Catalytic Reduction), STMS (Sorbent Trap Monitoring System), TBTu (Trillion Btu), TR (Transport Rule) and WFGD (Wet Flue Gas Desulfurization).

**Changes in Section 3 of the Permit: Conditions for Insignificant Activities**

Condition 3.1.2

A silo for activated carbon would be added to the list of insignificant activities, reflecting the addition of activated carbon systems on the coal-fired boilers to control mercury emissions.

**Changes in Section 5.0: Overall Conditions**

Condition 5.1.3

A co-located facility at the site would be referenced in the revised CAAPP permit. A Coal Additive Facility has been constructed at Coffeen to introduce additives to the coal delivered to the coal-fired boilers. The additives are intended to reduce emissions when the coal is burned in the boilers.

Condition 5.2.4

This condition would be updated since Coffeen is now subject to a Risk Management Plan. This is because of the addition of an ammonia storage tank for the selective catalytic reduction (SCR) systems.

Condition 5.9

This current condition would have required the Permittee to provide certain information to the Illinois EPA in advance of, or contemporaneous with, this permit reopening to assist the Illinois EPA if the permit was not reopened prior to issuance of the current CAAPP permit. This requirement is now moot and this condition would be removed from the CAAPP permit.

**Changes in Section 6.0: Conditions for Emissions Control Programs**

**Current Section 6.1: NO$_x$ Trading Program**

Current Section 6.1 would be removed from the permit because the NO$_x$ Trading Program addressed by 35 IAC 217 Subpart W no longer exists. The requirements under the program expired in 2009. Current Section 6.2, which addresses the Acid Rain Program, would be renumbered as Section 6.1.

**Section 6.2: Cross State Air Pollution Rule**

On July 6, 2011, the USEPA finalized the rule known as the Cross-State Air Pollution Rule (CSAPR). CSAPR requires states to significantly improve air

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13 The NO$_x$ Trading Program has been made obsolete by the USEPA’s adoption of the Cross State Air Pollution Rule (CSAPR).
quality by reducing power plant emissions that contribute to ozone and/or fine particle pollution in other states.\textsuperscript{14}

CSAPR requires a total of 28 Eastern and Midwestern states to reduce annual SO\textsubscript{2} emissions, annual NO\textsubscript{x} emissions and/or ozone season NO\textsubscript{x} emissions to assist in attaining the 1997 ozone and fine particle and 2006 fine particle National Ambient Air Quality Standards (NAAQS). CSAPR took effect January 1, 2015 for SO\textsubscript{2} and annual NO\textsubscript{x}, and May 1, 2015 for ozone season NO\textsubscript{x}.

CSAPR includes several emissions trading programs that require affected electrical generating units (EGUs) to hold emission allowances sufficient to cover their emissions of NO\textsubscript{x} and/or SO\textsubscript{2} in each compliance period. For each trading program and compliance period, the rule establishes overall state “budgets” representing the maximum number of emission allowances that may be allocated to the group of affected EGUs in each covered state. Annual SO\textsubscript{2} allocations for the two affected EGUs (combined) at Coffeen are 13,759 tons per year in 2015 and 2016 and 7,172 tons per year in 2017 through 2020. Annual NO\textsubscript{x} allocations for the two affected EGUs (combined) are 2,600 tons per year for the period of 2015 through 2020 and 1,159 tons per ozone season for the same period.\textsuperscript{15}

The requirements of CSAPR that apply to the two EGUs at Coffeen are addressed in Section 6.2 of the permit. The language in the draft permit is based on the template provided in a guidance memorandum from USEPA, “Title V Permit Guidance and Template for the Cross-State Air Pollution Rule,” May 13, 2015. The language in the draft permit reflects a number of enhancements to the language that were made in response to preliminary comments from USEPA.

The Permittee submitted an initial compliance certification for CSAPR to USEPA on April 21, 2015. This has been followed by periodic compliance reports on a quarterly basis.

**Section 6.3 Best Available Retrofit Technology**

Under the Clean Air Act, to reduce emissions of visibility impairing air pollutants, NO\textsubscript{x}, SO\textsubscript{2}, and PM, certain stationary sources must be subject to a Best Available Retrofit Technology (BART) standard. BART is defined as an “emission limitation based on the degree of reduction available through the application of the best system of continuous emission reduction for each pollutant which is emitted by an existing stationary facility” (40 CFR 51.301).

A state may opt to implement an alternate measure rather than requiring each unit subject to BART to install, operate, and maintain BART if it demonstrates that the alternate measure will achieve greater reasonable progress. The

\textsuperscript{14} The timing of CSAPR’s implementation has been affected by a number of court actions. On December 30, 2011, CSAPR was stayed prior to implementation. On April 29, 2014, the U.S. Supreme Court issued an opinion reversing an August 21, 2012 D.C. Circuit decision that had vacated CSAPR. Following the remand of the case to the D.C. Circuit, USEPA requested that the court lift the CSAPR stay and toll the CSAPR compliance deadlines by three years. On October 23, 2014, the D.C. Circuit granted USEPA’s request. Accordingly, CSAPR Phase 1 implementation begins in 2015, with Phase 2 beginning in 2017.

\textsuperscript{15} Allocations are from Technical Information and Support Document on USEPA website titled “Unit Level Allocations Under the CSAPR FIPs After Tolling”. (http://www3.epa.gov/crossstaterule/pdfs/UnitLevelAllocations_Tolled.xls)
criteria for the assessment if an alternative measure demonstrates greater reasonable progress are provided in 40 CFR 51.308(e)(2).

Illinois elected to use certain provisions for NO\textsubscript{x} and SO\textsubscript{2} emissions in the Multi-Pollutant Standard (MPS), 35 IAC 225.233, as an alternative to requiring BART control on each of the MPS units subject to BART. The MPS will reduce emissions from both units subject to BART and units not subject to BART at the MPS Group plants. Implementation of the MPS emission limits at the MPS Group plants was expected to provide much deeper NO\textsubscript{x} and SO\textsubscript{2} reductions in the aggregate than solely implementing BART on the MPS units subject to BART and thus will provide greater reasonable progress to improve visibility.\textsuperscript{16}

Section 6.4 Illinois Mercury Rule

To address mercury emissions from EGUs, Illinois adopted 35 IAC Part 225, “Control of Emissions from Large Combustion Sources”. This rule provided two options for certain plants, including Coffeen. One option only imposed stringent limits for mercury emissions; the other option deferred application of the mercury emission limits and, during the deferment, mandated implementation of specific mercury control technology in conjunction with more stringent limits for emissions of SO\textsubscript{2} and NO\textsubscript{x}.

For the EGUs at Coffeen, the Permittee chose the latter option, the “multi-pollutant standard” or MPS. Under this option, the two EGUs at Coffeen and the EGUs at other power plants in the MPS Group must comply with the following limits as would be addressed in planned Section 6.4 of the draft revised CAAPP permit:

- Mercury: 0.0080 lb mercury/GWh gross electrical output, as shown using continuous monitoring equipment which may include mercury sorbent traps and associated monitoring and data acquisition systems.

- NO\textsubscript{x}: An MPS Group system-wide annual emission rate of no more than 0.11 lb/million Btu, as shown using continuous emissions monitoring systems.

- SO\textsubscript{2}: Pursuant to Board Case No. PCB 2014-010, an MPS Group system-wide annual emission rate of 0.35 lb/mmBtu, as shown using continuous emissions monitoring systems. Beginning January 1, 2020, a system-wide annual emission rate of 0.23 lb/mmBtu.

The Permittee submitted an initial compliance certification for the Illinois Mercury Rule to Illinois EPA in 2009. These have been followed by periodic compliance certifications on a quarterly and annual basis.

\textsuperscript{16} On December 21, 2015, the USEPA approved into the Illinois Regional Haze State Implementation Plan (SIP) the variance for the EGUs included in the Ameren Multi-Pollutant Standard Group (MPS Group) [80 FR 79261]. The MPS and related variance apply to the Ameren MPS group: Coffeen Power Station (Montgomery County), Duck Creek Power Station (Fulton County), E.D. Edwards Power Station (Peoria County), Joppa Power Station (Massac County), and Newton Power Station (Jasper County), Meredosia Power Station (Morgan County) and Hutsonville Power Station (Crawford County). The variance requires that the Meredosia and Hutsonville Power stations be shuttered during the term of the variance. The plants could be reopened after the variance expires on December 31, 2020.
Section 6.5 Mercury and Air Toxics Standards (MATS Rule)

On December 16, 2011, the USEPA adopted the National Emission Standards for Hazardous Air Pollutants (NESHAP) from Coal- and Oil-Fired Electric Utility Steam Generating Units, 40 CFR 63 Subpart UUUU, to reduce emissions of hazardous air pollutants (HAPs) from power plants. Specifically, these NESHAP rules, more commonly referred to as the mercury and air toxics standards (MATS) for power plants, address HAP emissions from new and existing coal and oil-fired electric utility steam generating units (EGUs). The final rule was effective on April 16, 2012 and allowed existing sources three years to comply with the rule, resulting in an initial compliance date of April 16, 2015.17

MATS addresses emissions of heavy metals, including mercury (Hg), arsenic (As), chromium (Cr), and nickel (Ni); and acid gases, including hydrochloric acid (HCl) and hydrofluoric acid (HF). MATS applies to EGUs larger than 25 MW that burn coal or oil for the purpose of generating electricity for sale and distribution through the national electric grid to the public. For existing coal-fired EGUs, the rule establishes numerical emission limits for mercury, non-mercury HAP metals, and HCl (a surrogate for all toxic acid gases). The rule establishes alternative numeric emission standards for certain HAPs, which a source may elect, including SO2 (as an alternate to HCl), and PM (as an alternative to non-mercury HAP metals).

MATS also imposes a work practice to limit emissions of certain organic air toxics, including dioxin/furan, from existing and new coal- and oil-fired power plants. Because dioxins and furans form as a result of incomplete combustion, the work practice standards require a triennial or quadrennial combustion tune-up for each subject unit. The required tune-ups must include inspection, adjustment, and/or maintenance and repairs to ensure optimal combustion.

For the two coal boilers at Coffeen, the Permittee has chosen the following approaches to comply with requirements of the MATS Rule:

- **Non-Mercury HAP Metals:** Compliance with the PM limit of 0.030 lb/mmBtu, as a 30-boiler operating day rolling average. The Permittee is demonstrating compliance at the source with quarterly emissions testing and averaging across both boilers. (The Permittee has not chosen to use a continuous particulate matter monitoring system at the source.) Pursuant to the MATS Rule, the source may qualify for low emitting EGU (LEE) status for filterable PM if performance test emissions results are less than 50 percent of the applicable emissions limits for all required testing for 3 consecutive years. If LEE status is achieved, the Permittee will be required to conduct performance testing for filterable PM on each affected LEE-qualifying EGU once every three years.

- **Acid Gases:** Compliance with an SO2 limit of 0.20 lb/mmBtu, as a 30-boiler operating day rolling average. Pursuant to the MATS Rule, the Permittee is allowed this method since each affected EGU is equipped with a flue gas desulfurization system and an SO2 continuous emission monitoring system (CEMS). With this option, quarterly testing for HCl emissions is not required.

17 The MATS Rule is currently under review by the D.C. Circuit Court of Appeals.
• Mercury: Compliance with a limit of 0.011 lb/GWh, as a 90-boiler operating day rolling average, using emissions averaging including emissions from both boilers. Pursuant to the MATS Rule, the Permittee is using a mercury sorbent trap monitoring system to demonstrate compliance with the standard.

• Work Practices: Conducting tune-ups of the boiler burner and combustion controls at least every 36 calendar months. The Permittee shall comply with the control device operation, fuel usage, monitoring, recordkeeping, and reporting requirements specified in Items 3 and 4 of Table 3 of 40 CFR Part 63 Subpart UUUUU during startup periods and shutdown periods of the affected EGUs. For this purpose, the Permittee has elected to use the first definition of startup in 40 CFR 63.10042.18

MATS Initial Compliance Demonstrations

As required by the MATS Rule, the Permittee has conducted all required initial performance testing, boiler tune-ups and notifications. All emissions testing demonstrated significant margins of compliance with the applicable emissions limits. The Permittee submitted a notice of completion of initial performance tune-up for the boilers to the Illinois EPA on October 23, 2014, and an initial notification of compliance status for the MATS Rule to the Illinois EPA on September 11, 2015. These have been followed by periodic testing reports on a quarterly basis. The first semi-annual compliance report was submitted January 29, 2016.

MATS Compliance Options

The draft revised CAAPP permit would also allow the Permittee to switch to other compliance options, as provided by the MATS Rule. This would be addressed in planned Condition 6.5.9, which provides that such switches may occur following prior notification to Illinois EPA and applicable performance testing and revisions to the Notification of Compliance Status as necessary.

Changes in Section 7.1: Coal Fired Boilers

Condition 7.1.1

The description of the boilers would be updated to reflect currently installed pollution control equipment. Equipment installed on the boilers since 2005 includes wet flue gas desulfurization (WFGD) systems and mercury re-emission reduction systems (MRRS). Flue gas conditioning is no longer used for the ESPS for the boilers so would no longer be mentioned in this condition.

18 This definition provides that a startup is “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). Any fraction of an hour in which startup occurs constitutes a full hour of startup.”
Condition 7.1.2

New emissions control equipment added to the coal boilers since 2005 would be added to the table, including the wet flue gas desulfurization (WFGD) systems and mercury re-emission reduction systems (MRRS). Flue Gas Conditioning (FGC) systems would no longer be included in the table since these systems are no longer used.

Condition 7.1.3(c)

Mention of flue gas conditioning systems would be removed since the systems is no longer used on the ESPs for the boilers.

Condition 7.1.4(c) through (f)

These new conditions for the coal boilers would refer to applicable requirements of CSAPR in Section 6.2 of the permit, the BART requirements in Section 6.3 of the permit, the applicable requirements of the Illinois Mercury Rule in Section 6.4 of the permit and the applicable requirements of the MATS Rule in Section 6.5 of the permit. Discussions of these requirements are provided above in the discussions for “Changes to Section 6.0”.

Condition 7.1.4(h)

The allowable SO\textsubscript{2} hourly emission rate is calculated using the equation in 35 IAC 214.184, and is based on the stack height. The original 500 foot tall stack at Coffeen has been replaced since 2005 with a new 575 foot tall stack. Based on the equation, the state limit for SO\textsubscript{2} emissions could be increased. However, the Permittee has elected to maintain the existing standard of 55,555 pounds per hour.

Condition 7.1.5(a)(ii)(B)

The SO\textsubscript{2} standards related to operation of the boilers while burning residual fuel oil or distillate fuel oil would be updated to include changes to 35 IAC Part 214 that are effective beginning on January 1, 2017. Since the changes have not yet been approved by USEPA as part of Illinois’ SIP, they would be listed in the permit as State-Only Requirements.

Condition 7.1.5(c) through (g)

Non-applicability statements for NSPSs 40 CFR Part 60 Subparts D, Da and CCCC would be added to the permit. This is because these boilers are existing units and have not been modified or reconstructed after relevant trigger dates (NSPS Subparts D and Da) and do not combust any waste (NSPS Subpart CCCC). Non-applicability statements would be also added for NESHAPs 40 CFR Part 63 Subparts DDDDD and JJJJJJ. This is because the boilers are utility boilers subject to MATS.

Condition 7.1.5(i) and (k)

Non-applicability statements for Compliance Assurance Monitoring (CAM) for State Rules for SO\textsubscript{2}, NO\textsubscript{x} and mercury based on use of continuous monitoring devices would be added to the permit. CAM is also not applicable for MATS standards.
Condition 7.1.6(a)(ii) and (b)

A statement that the tune-ups required by the MATS Rule, as would be addressed in Condition 6.5.4(a), satisfy the semi-annual requirement for a combustion evaluation would be added to the condition. Also, new State-Only sulfur content limits for liquid fuel would be added to the condition.

Condition 7.1.7(e)(iii)(D)

An obsolete reference to the flue gas conditioning systems would be removed from this condition.

Condition 7.1.9(b)(iv)

Records required by the Construction Permit for the mercury re-emission reduction system would be added to the condition.

Condition 7.1.9(c)

Recordkeeping requirements for continuous monitoring systems, pursuant to 40 CFR Part 75, as required for the Acid Rain Program and CSAPR would be added.

Changes in Section 7.4: Fly Ash Equipment

Conditions 7.4.1 and 7.4.2

The conditions would be updated to reflect new systems that have been installed since 2005; other revisions would be made to more accurately describe the control measures and bin vents.

Condition 7.4.4(c)

Individual compliance demonstration for the fly ash wet mixing system, which was added in 2008, would be added.

Condition 7.4.6(b) and (c)

PM emission limit for certain new equipment set forth in Construction Permits #07110031 and #08050053 would be added to this condition.

Condition 7.4.9(c)

Recordkeeping would be updated to include additional operating records required by Construction Permit #07110031.

Section 7.5: Limestone and Gypsum Handling Equipment

Section 7.5

This section would be added to the CAAPP permit due to the construction of equipment at Coffeen to handle the limestone and gypsum associated with the
WFGD systems for the coal boilers. With this change, subsequent sections and conditions in Section 7 of the permit would be renumbered.\textsuperscript{19}

The Permittee operates a limestone handling system that is used for unloading, storage and transfer of limestone and three wet ball mills to prepare limestone for use in the WFGD systems. The Permittee also operates a wet sluiced system for gypsum produced by the WFGD systems that is routed to the plant gypsum pond. Associated PM emissions are controlled by various control measures such as enclosures and covers.

Certain affected processes (limestone day bins, wet ball mills and limestone conveyors) would be subject to the NSPS for Nonmetallic Mineral Processing Plants, 40 CFR 60 Subpart OOO.

**Condition 7.5.1**

A description of the limestone and gypsum handling equipment and associated control equipment would be added to the permit.

**Condition 7.5.2**

A table would be added listing emission units with description and identification of associated emission control equipment.

**Condition 7.5.3**

Applicability provisions, including the NSPS for Nonmetallic Mineral Processing Plants, 40 CFR 60 Subpart OOO, would be added to the permit. The processes affected by this NSPS are the limestone day bins, wet ball mills and limestone conveyors.

**Condition 7.5.4**

Applicable emission standards, including standards for opacity and fugitive particulate matter as required by State and NSPS rules would be added to the permit. In this regard, the PM standard for stack emissions in the NSPS, as addressed by Construction Permit #06090019, would not be carried over to the CAAPP permit. This is because this standard is not applicable. Pursuant to 40 CFR 60.672(e)(2), any baghouse that controls emissions from only an individual, enclosed storage bin (bin vent) is exempt from the applicable stack PM concentration limit and associated performance testing. The appropriate NSPS standards for opacity would be addressed in the permit.

**Condition 7.5.5**

Non-applicability statements for the processes not subject to the NSPS, including gypsum handling and certain limestone handling processes, would be added to the permit.

\textsuperscript{19} Current Section 7.5 for the auxiliary boiler would be renumbered Section 7.6. Individual conditions in Section 7.5 would also be similarly renumbered.
Condition 7.5.6

Work practices, including control measures for particulate matter, construction permit emission limits and other control requirements, and NSPS general air pollution control practices would be added to the permit.

Condition 7.5.7

Requirements for opacity observation for the affected processes would be added to the permit. Observations must be conducted within two years of condition effectiveness, and every third year thereafter.

Condition 7.5.8

Equipment inspections and visual emission observation requirements for the affected processes would be added to the permit. Method 22 visual emission observations would be required during each calendar year. Equipment inspections would be required on a monthly basis.

Condition 7.5.9

Recordkeeping requirements, including records of process emission points, primary and secondary control measures for particulate matter, and the Record of Control Measures would be added to the permit. Also, construction permit requirements, records of inspections and observations, and records of incidents where proper control measures were not maintained would also be added to the permit. The records requirement for 40 CFR 52.21(r)(6)(v) from the construction permit would be not included because these provisions do not apply.

Condition 7.5.10

Reporting requirements, including reporting of deviations and quarterly reports would be added to the permit.

Condition 7.5.11

Operational flexibility, including operation of additional control measures, or replacement of control measures, would be added to the permit.

Condition 7.5.12

A summary of the compliance procedures for applicable emission standards and work practices would be added to the permit.

Changes in Section 7.6: Auxiliary Boiler

Condition 7.6.3(a)(ii)

A condition would be added indicating that the auxiliary boiler is subject to the NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD. However, since the boiler meets the criteria for a “limited-use boiler”, it is not subject to the emission limits and certain other requirements of this NESHAP. The Permittee was required to comply with the applicable requirements of this NESHAP no later...
than January 31, 2016. The Permittee submitted the Notification of Compliance Status on January 28, 2016 and has complied with all requirements in this NESHAP that are applicable.

**Condition 7.6.4(c)**

A new State-Only requirement limiting fuel sulfur content affective January 1, 2017 would be added to the condition, reflecting recent changes to 35 IAC Part 214. Prior to January 1, 2017, there is a limit for SO₂ emissions from the boiler.

**Condition 7.6.5(f)**

A non-applicability statement would be added reflecting the fact that the auxiliary boiler is not subject to certain otherwise applicable requirements of 40 CFR 63 Subpart DDDDD because it meets the criteria for a limited use boiler.

**Condition 7.6.6(a)**

The requirement to conduct a combustion evaluation for the auxiliary boiler in each calendar year in which it is operated would be removed. This is because the boiler is now subject to a requirement for a tune-up every five years as specified by 40 CFR 63.7540. The procedures for the tune-ups required by this NESHAP are more thorough than the previously required combustion evaluation, which will ensure compliance with the CO emission limits.

The work practice of firing only ultra-low-sulfur fuel (15 ppm sulfur by weight) pursuant to new State-Only requirements which take effect January 1, 2017 would be added to the permit.

**Condition 7.6.7**

Current Condition 7.5.7-2, setting forth the requirement for fuel oil sulfur sampling and analysis, would be removed since the Permittee is now required to maintain fuel oil receipts from the fuel supplier, pursuant to 40 CFR 63 Subpart DDDDD. Current Condition 7.5.7-1 would be renumbered as Condition 7.6.7.

**Condition 7.6.8**

The boiler is now required to complete a tune-up every five years pursuant to the NESHAP.

**Condition 7.6.9(a)(i)**

Recordkeeping required by 40 CFR 63 Subpart A would be addressed.

**Condition 7.6.9(a)(ii)**

The recordkeeping required by 40 CFR 63 Subpart DDDDD for tune-ups would be addressed.
Condition 7.6.9(a)(iv)

New State-Only requirements for recordkeeping of the sulfur content of fuel oil would be added. Current Condition 7.5.9(b), which relates to records for fuel oil sulfur content, would be removed.

Condition 7.6.9(a)(v)

Required recordkeeping pursuant to the 40 CFR 63 Subpart DDDDD for fuel use would be added to this condition.

Condition 7.6.10-1(a)(iv)

New State-Only requirements for notification of deviations from the fuel oil sulfur requirements would be added.

Condition 7.6.10-2(c)

Boiler Tune-Up reporting requirements of 40 CFR 63 Subpart DDDDD would be added.

Section 7.7: WFGD Emergency Diesel Engine Generator

Section 7.7 would be added to the CAAPP permit to address the emergency diesel engine generator installed to protect the WFGD systems on the coal-fired boilers in the event of a loss of station electrical power.

Only the requirements for the emergency engine from Construction Permit #07120051 would be incorporated into the revised permit. The original smaller engine authorized by Permit #06090019 was never constructed. That engine was only designed to provide emergency power for the mist eliminator system quench pumps in the WFGD systems. Accordingly, the Construction Permit #06090019 for the WFGD Systems only authorized installation of an emergency diesel engine with a capacity that would be no greater than 500 brake horsepower.

Construction Permit #07120051 was subsequently issued for an emergency diesel engine generator that would be large enough to protect the entire WFGD systems from damage during loss of station power. This emergency engine generator is exempt from requirements of the NESHAP, 40 CFR 63 Subpart ZZZZ, since it is only used for emergency backup. The engine is rated at 1.6 MWe, which is approximately 2,146 brake horsepower.

Condition 7.7.1

A description of the WFGD Emergency Diesel Engine Generator would be added to the permit. The generator was moved from another power plant and has an original construction date of 2000.

Condition 7.7.2

A table of emission unit descriptions and pollution control equipment would be added to the permit. There is no control equipment installed on the engine.
Condition 7.7.3

Applicability provisions, including provisions for startup and malfunction/breakdown as available under state rules, would be added to the permit.

Condition 7.7.4

Applicable emission standards, including opacity limits and fuel sulfur content limitations, would be added to the permit.

Condition 7.7.5

Non-applicability statements, including statements concerning the NSPS, 40 CFR Part 60 Subpart IIII (Stationary Compression Ignition Internal Combustion Engines), 40 CFR Part 64 (Compliance Assurance Monitoring), and the RICE NESHAP, 40 CFR Part 63 Subpart ZZZZ, would be added to the permit.

Condition 7.7.6

Work practices and emission limitations related to a construction permit would be added to the permit.

Condition 7.7.7

The requirement to perform annual opacity observations on the engine would be added to the permit. Due to the use of the generator permitted during emergency situations only, annual opacity observations are sufficient to ensure compliance with the opacity limitation in Condition 7.7.4.

Condition 7.7.8

Recordkeeping requirements, including manufacturer’s specifications and documentation, emission rates, inspection and maintenance records, operating records and fuel records would be added to the permit. Records for continued operation during malfunctions and breakdowns would also be added to the permit.

Condition 7.7.9

Reporting requirements, including quarterly reports, deviation reports and reports when continued operation occurred during malfunctions and breakdowns would be added to the permit.

Condition 7.7.10

A summary of the compliance procedures for the emission limits in new Condition 7.7.4 would be added to the permit.

Changes in Section 7.8: Gasoline Storage Tank

Condition 7.8.5(b)

A non-applicability statement would be added for the NESHAP for Gasoline Dispensing Facilities, 40 CFR 63 Subpart CCCCCC. This is because Coffeen is a major source for HAPs and not an area source.
CHAPTER 4 - PLANNED CHANGES FOR THE COMPLIANCE ASSURANCE MONITORING (CAM) PLANS

4.1 CAM Monitoring Approach

The Permittee selected two indicators for the CAM Plans for PM emissions of the coal-fired boilers. The Permittee selected opacity as the first indicator. The continuous opacity monitoring systems (COMS), which are installed between the ESP and the FGD systems for each boiler, are used to continuously monitor opacity. The indicator range for opacity is opacity from a boiler greater than 30 percent, on a three-hour block average, excluding startup, shutdown or malfunction events. Since the opacity monitors are located before the WFGD systems, which provide additional PM removal, the Permittee selected a second indicator based on the operation of the WFGD systems. This second indicator is the number of recycle pumps (RPs or pumps) in a WFGD system that are in service. The designated condition for the pumps is fewer than two pumps in service in the WFGD system on a boiler. Under the CAM Plans, an excursion occurs at a boiler when the indicator range and designated condition for both indicators are not met, i.e., measured opacity exceeds 30 percent and less than two pumps are in service, on a three-hour block average, excluding periods of startup, shutdown or malfunctions.

Under the conditional approval of the submitted CAM plans, the Permittee was required to conduct testing for PM emissions to further evaluate the relationship between the opacity, the number of pumps in service and the PM emissions of each boiler. The purpose of this testing was to confirm the selected indicator ranges and designated conditions in the CAM Plans for opacity and pumps in service are such that as long as either the opacity is at or below the designated value or the number of pumps in service is at or above the designated value, there is reasonable assurance that the boiler will comply with the applicable PM emission limits.

The PM testing was conducted during normal operation of the ESPs and WFGD systems as well as during operation with detuned ESPs and the minimum number of pumps that would normally be in service at any time. The test results indicate that the PM emissions of the boilers at 30 percent opacity with two pumps in service are less than 10 percent of the applicable state PM emission limits, i.e., 0.19 and 0.15 lb/mmBtu for Boiler 1 and 2, respectively, with compliance margins of more than 90 percent.

4.2 CAM PM Testing

Emission testing was conducted for each boiler to further evaluate the relationship between opacity, the number of pumps in service and PM emissions. The PM testing of each boiler was conducted under six distinct operating conditions addressing both the operation of the ESPs and the recycle pumps in the WFGD systems for the boilers:

1. Normal RP, Normal ESP - Baseline
2. Normal RP, De-Tuned ESP Condition 1 - De-tune Mid
3. Normal RP, De-Tuned ESP Condition 2 - De-tune High
4. Minimum RP, Normal ESP - Min RPs, Baseline
5. Minimum RP, De-Tuned ESP Condition 1 – Min RPs, De-tune Mid

6. Minimum RP, De-Tuned ESP Condition 2 – Min RPs, De-tune High

The testing addressed boiler and control device operation under typical operating conditions and under conditions that simulated reduced effectiveness of the ESPs and WFGD systems. During testing, the boilers operated in the maximum load range, since the highest PM emissions rates are associated with maximum load. Three test runs using USEPA Test Method 5B were conducted for each of the operating conditions of the boilers that was evaluated.²⁰

A summary of the test results for Boiler 1 is provided below. For all operating conditions, the PM emissions of Boiler 1 were less than 10 percent of the applicable PM emission standard pursuant to 35 IAC 212.203. In particular, the average PM emission rate with high de-tuning of the ESP (average opacity 23.34 percent) and the minimum number of pumps in service was 0.0094 lb/mmBtu, compared to the applicable state standard of 0.19 lb/mmBtu.

<table>
<thead>
<tr>
<th>Operating Condition</th>
<th>PM Emissions (lb/mmBtu)</th>
<th>TR-Set{{}<em>ref</em>} in Service</th>
<th>Opacity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>0.0034</td>
<td>14/15</td>
<td>10</td>
</tr>
<tr>
<td>Baseline</td>
<td>0.0041</td>
<td>14/15</td>
<td>10</td>
</tr>
<tr>
<td>Baseline</td>
<td>0.0033</td>
<td>14/15</td>
<td>11</td>
</tr>
<tr>
<td>Baseline De-tune Mid</td>
<td>0.0057</td>
<td>10/15</td>
<td>19</td>
</tr>
<tr>
<td>Baseline De-tune Mid</td>
<td>0.0052</td>
<td>10/15</td>
<td>16</td>
</tr>
<tr>
<td>Baseline De-tune Mid</td>
<td>0.0047</td>
<td>10/15</td>
<td>15</td>
</tr>
<tr>
<td>Baseline De-tune High</td>
<td>0.0094</td>
<td>9/15</td>
<td>23</td>
</tr>
<tr>
<td>Baseline De-tune High</td>
<td>0.0079</td>
<td>9/15</td>
<td>20</td>
</tr>
<tr>
<td>Baseline De-tune High</td>
<td>0.0064</td>
<td>9/15</td>
<td>18</td>
</tr>
<tr>
<td>Min RPs-Baseline</td>
<td>0.0028</td>
<td>14/15</td>
<td>8</td>
</tr>
<tr>
<td>Min RPs-Baseline</td>
<td>0.0030</td>
<td>14/15</td>
<td>8</td>
</tr>
<tr>
<td>Min RPs-Baseline</td>
<td>0.0037</td>
<td>14/15</td>
<td>8</td>
</tr>
<tr>
<td>Min RPs-De-tune Mid</td>
<td>0.0081</td>
<td>10/15</td>
<td>15</td>
</tr>
<tr>
<td>Min RPs-De-tune Mid</td>
<td>0.0075</td>
<td>10/15</td>
<td>15</td>
</tr>
<tr>
<td>Min RPs-De-tune High</td>
<td>0.0070</td>
<td>10/15</td>
<td>16</td>
</tr>
<tr>
<td>Min RPs-De-tune High</td>
<td>0.0090</td>
<td>8/15</td>
<td>25</td>
</tr>
<tr>
<td>Min RPs-De-tune High</td>
<td>0.0087</td>
<td>8/15</td>
<td>23</td>
</tr>
<tr>
<td>Min RPs-De-tune High</td>
<td>0.0103</td>
<td>8/15</td>
<td>22</td>
</tr>
</tbody>
</table>

A summary of the test results for Boiler 2 is provided below. For all operating conditions, the PM emissions of Boiler 2 were less than 10 percent of

²⁰ Following receipt of the CAM test results, the Illinois EPA requested that the source conduct additional particulate matter testing using both USEPA Reference Method 5B and Reference Method 5, since the source is required to use USEPA Reference Method 5 for compliance testing for PM emissions. The results of this testing did not show substantive differences between the results and the margins of compliance were similar for both test methods.

²¹ The Transformer/Rectifier Sets (TR Sets) provide power to the sections of the electrostatic precipitator. The number of TR-Set in service provides an approximate ratio of actual power to the ESP compared to the maximum power if all TR-Set were in service. For example, the numbers 8/15 represents 8 TR-Set in service compared to the 15 total TR-Set in the ESP for Boiler 1.
the applicable PM standard. In particular, the average PM emission rate with the high de-tuning of the ESP (average opacity 26.34 percent) and the minimum number of pumps in service was 0.0117 lb/mmBtu, compared to the applicable standard of 0.15 lb/mmBtu.

<table>
<thead>
<tr>
<th>Operating Condition</th>
<th>PM Emissions (lb/mmBtu)</th>
<th>TR-Sets in Service</th>
<th>Opacity (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>0.0039</td>
<td>24/24</td>
<td>14</td>
</tr>
<tr>
<td>Baseline</td>
<td>0.0035</td>
<td>24/24</td>
<td>14</td>
</tr>
<tr>
<td>Baseline</td>
<td>0.0032</td>
<td>24/24</td>
<td>14</td>
</tr>
<tr>
<td>Baseline De-tune Mid</td>
<td>0.0055</td>
<td>16/24</td>
<td>23</td>
</tr>
<tr>
<td>Baseline De-tune Mid</td>
<td>0.0073</td>
<td>16/24</td>
<td>24</td>
</tr>
<tr>
<td>Baseline De-tune Mid</td>
<td>0.0066</td>
<td>16/24</td>
<td>23</td>
</tr>
<tr>
<td>Baseline De-tune High</td>
<td>0.0060</td>
<td>10/24</td>
<td>20</td>
</tr>
<tr>
<td>Baseline De-tune High</td>
<td>0.0069</td>
<td>10/24</td>
<td>21</td>
</tr>
<tr>
<td>Baseline De-tune High</td>
<td>0.0069</td>
<td>10/24</td>
<td>22</td>
</tr>
<tr>
<td>Min RPs-Baseline</td>
<td>0.0026</td>
<td>24/24</td>
<td>11</td>
</tr>
<tr>
<td>Min RPs-Baseline</td>
<td>0.0027</td>
<td>24/24</td>
<td>11</td>
</tr>
<tr>
<td>Min RPs-Baseline</td>
<td>0.0030</td>
<td>24/24</td>
<td>11</td>
</tr>
<tr>
<td>Min RPs-De-tune Mid</td>
<td>0.0063</td>
<td>16/24</td>
<td>18</td>
</tr>
<tr>
<td>Min RPs-De-tune Mid</td>
<td>0.0056</td>
<td>16/24</td>
<td>17</td>
</tr>
<tr>
<td>Min RPs-De-tune Mid</td>
<td>0.0047</td>
<td>16/24</td>
<td>18</td>
</tr>
<tr>
<td>Min RPs-De-tune High</td>
<td>0.0122</td>
<td>11/24</td>
<td>28</td>
</tr>
<tr>
<td>Min RPs-De-tune High</td>
<td>0.0119</td>
<td>11/24</td>
<td>26</td>
</tr>
<tr>
<td>Min RPs-De-tune High</td>
<td>0.0109</td>
<td>11/24</td>
<td>25</td>
</tr>
</tbody>
</table>

The analysis of the results of this testing convincingly demonstrates that the selected indicator ranges in the CAM Plans for the boilers meet the design requirements of 40 CFR 64.3.

### 4.3 CAM Averaging Period

The CAM Rule does not provide specific averaging periods to be used in the development of monitoring approaches. However, 40 CFR 64.3(d)(3)(i) implies that the appropriate averaging period is the averaging period of the underlying emissions standard. In this case, 35 IAC 212.110 provides that compliance with the applicable PM standard is based on emissions testing. Since emissions testing for PM includes at least three test runs, each nominally one-hour in duration, this indicates that a three-hour averaging period is an appropriate averaging time for purposes of CAM.

### 4.4 CAM Excursion

During “normal operation”, (i.e., periods other than startup, shutdown or malfunction), an excursion for a boiler is a three-hour block during which both (1) the three-hour average opacity of that boiler exceeds 30 percent, and (2) fewer than two pumps are in service for that boiler (evaluated as the average of three operating hours using pump motor amperage instrumentation). Each excursion must be investigated by the Permittee to determine the monitoring status and operating conditions responsible for the excursion.
4.5 **CAM Excursion Corrective Action**

Upon detecting an excursion, Coffeen personnel must implement corrective action to restore the indicator to below the indicator range. Corrective action should begin with an evaluation of the monitoring system to determine if the excursion is related to the monitoring system or the control device. Individual unit process and control device operating records will be reviewed to determine the cause of the excursion. To the extent possible, any corrective action should reduce the potential of similar excursions from recurring.

4.6 **CAM Reporting Requirements**

All excursions must be reported in the plant’s semi-annual CAAPP compliance report. As required by the CAM Rule, the Permittee shall include summary information on the number, duration and cause of excursions and the corrective actions taken. It is not necessary to report PM control equipment malfunctions that do not cause an excursion. The Permittee will also include summary information on the number, duration, and cause of opacity monitor downtime incidents.

4.7 **CAM Recordkeeping Requirements**

The Permittee must retain all monitoring data and support information for a period of at least five years from the date of the monitoring sample, measurement, report or application.

4.8 **Planned Changes to the CAAPP Permit**

**Condition 7.1.8(e)**

An applicability statement concerning CAM for PM as addressed in Condition 7.1.13 would be added to the permit.

**Current Condition 7.1.9(c)(ii)(B)**

This current condition was added in a previous permitting action for additional periodic monitoring until the conditionally approved CAM Plans received final approval and implementation. Since this has been achieved, the condition would be removed from the permit.

**Current Condition 7.1.10-2(a)(i)(E)**

This condition sets forth recordkeeping requirements for the above Condition 7.1.9(c)(ii)(B) that would be removed; accordingly, it would also be removed.

**Current Condition 7.1.13-1**

Condition 7.1.13-1 of the current CAAPP permit provides conditional approval of the CAM Plans, including the deadline for testing of PM emissions for purposes of CAM and a requirement for implementation of Compliance Assurance Monitoring. The Permittee has complied with all requirements of this conditional approval; therefore, Condition 7.1.13-1 would be removed from the CAAPP permit.
Current Condition 7.1.13-2

This condition would be renumbered as Condition 7.1.13.

Condition 7.1.13(a)

Reference to a future date for the CAM requirements shown in Tables 7.1.13a and 7.1.13b would be removed. Also, reference to the recordkeeping required by Condition 7.1.9(c)(ii)(B) would be removed as discussed above.

Condition 7.1.13(b)

Reference to a future date for CAM requirements would be removed, and several cross-references would be updated.

Tables 7.1.13a and 7.1.13b

The values for the indicator ranges (30% Opacity) and designated conditions (2 pumps) would be included in the tables. The tables would also be updated to reflect clarifying changes to the CAM Plans made by the Permittee.
Chapter 5 - OTHER PLANNED REVISIONS TO THE CAAPP PERMIT THROUGH SIGNIFICANT MODIFICATION

Introduction

The revisions described below are planned to be made in response to the Permittee’s application requesting certain revisions to the provisions of the CAAPP permit, including certain revisions to the requirements for Periodic Monitoring in the current CAAPP permit. These revisions that involve elements of Periodic Monitoring that are not explicitly required by applicable rules but were previously determined to be appropriate to ensure compliance with applicable substantive requirements. The Illinois EPA has determined that certain revisions to be these requirements are appropriate.

Section 5.0: Overall Source Conditions

Condition 5.2.6

This source wide condition would be updated to more clearly identify the requirements imposed by 35 IAC 244 for development and implementation of an Episode Action Plan. This condition would also provide that the Episode Action Plan previously submitted to the Illinois EPA would be incorporated by reference into the CAAPP permit.

Condition 5.2.7

This source wide condition would be added to incorporate by reference the Control Measures Record submitted to the Illinois EPA as required by Condition 7.2.9(b) for coal handling equipment, Condition 7.3.9(b) for coal processing equipment, and Condition 7.4.9(b) for fly ash handling. This condition would also specify that any revisions to the Control Measures Records submitted to the Illinois EPA would be incorporated by reference into the CAAPP permit. The initial record was submitted to the Illinois EPA in 2013.

Condition 5.4.2

Two statements providing the origin of authority would be corrected. Also, changes were made to more fully address the possible circumstances surrounding requirements for copies of records during an inspection by Illinois EPA or USEPA.

Section 7.1: Coal-Fired Boilers

Conditions 7.1.1 and 7.1.2

A statement that the description in Condition 7.1.1 is for informational purposes only and implies no limits or constraints would be added. This is because the information in this provision is not intended to be enforceable. In particular, the rated heat inputs of the boilers are not regulatory limits.

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22 Pursuant to Section 39.5(14)(c)(iii) of the Act, proceedings involving significant modifications to a CAAPP permit must use the same procedures that apply to initial permit issuance or renewal.
and are only provided for general information. For the same reason, the heat input ratings would be removed from the table in Condition 7.1.2.

**Condition 7.1.6(a)**

Revisions would be made to clarify the nature of measures that the Permittee might take as a result of combustion evaluations.

**Condition 7.1.7(a)(ii)**

In Condition 7.1.7(a)(ii), the draft of the revised permit would change the criterion for “retesting” or “additional testing” of a boiler for PM emissions based on the load at which the boiler is operated. This retesting would be in addition to the periodic emission testing that is required periodically by Condition 7.1.7(a)(iii) based on the compliance margin shown in the previous test. The new criterion would be operation of a boiler at load that is 15 percent higher than the load during the most recent PM testing for more than 72 hours in a quarter. This change would be made to account for seasonal variation in maximum load due to changing ambient weather conditions and other circumstances that constrain operation that are beyond the control of the Permittee. The current criterion for such retesting is if the load of a boiler exceeds the greater of 5 MW or 2 percent higher than the load during the previous test for more than 72 hours in a quarter.

In practice, the current criterion for retesting has not been met in the past nine quarters. However, due to guidelines and availability requirements established by Midcontinent Independent System Operator (MISO), the governing regional transmission organization, the Permittee may not be “allowed” to test the boilers at 90 percent or more of design capacity in the next periodic

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23 Condition 7.1.7(a)(iii) provides that subsequent, periodic testing for PM is to be conducted within 15 to 39 months of the previous test, based on the compliance margin shown by the previous test. If the compliance margin is less than 20 percent, subsequent testing must be conducted within 15 months. If the compliance margin is between 20 and 40 percent, subsequent testing must be conducted within 27 months. If the compliance margin is greater than 40 percent, subsequent testing must be conducted within 39 months of the previous measurement.

24 Duration of operation at “very high load” is considered in this criterion so that infrequent operation at such loads would not trigger the requirement for retesting. This is because it would be unreasonable to expect that retesting would be able to be conducted that higher load range if such operation has only occurred infrequently.

25 The greatest loads on the boilers during the emissions testing conducted in April 2013 were 359 and 626 MW for Boilers 1 and 2, respectively. The greatest load for each boiler reported by the source in its quarterly reports is shown below:

<table>
<thead>
<tr>
<th>Year</th>
<th>Quarter</th>
<th>Greatest Load (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Boiler 1</td>
</tr>
<tr>
<td>2015</td>
<td>3rd</td>
<td>361</td>
</tr>
<tr>
<td>2015</td>
<td>2nd</td>
<td>361</td>
</tr>
<tr>
<td>2015</td>
<td>1st</td>
<td>364</td>
</tr>
<tr>
<td>2014</td>
<td>4th</td>
<td>366</td>
</tr>
<tr>
<td>2014</td>
<td>3rd</td>
<td>366</td>
</tr>
<tr>
<td>2014</td>
<td>2nd</td>
<td>366</td>
</tr>
<tr>
<td>2014</td>
<td>1st</td>
<td>366</td>
</tr>
<tr>
<td>2013</td>
<td>4th</td>
<td>366</td>
</tr>
<tr>
<td>2013</td>
<td>3rd</td>
<td>366</td>
</tr>
</tbody>
</table>
If that should occur, the maximum load for Boiler 1 during the test could conceivably be only 329.4 MW. With the current criterion of 5 MW or 2 percent higher, this would trigger a retest for Boiler 1 if its load exceeded 336 MW. The intent of the condition was to ensure emissions testing would be conducted at an appropriate load on the boilers. Based on the magnitude of the margin of compliance during the last PM emissions test, current MISO guidelines, and in order to avoid unnecessary retests, the retest criterion would be changed to load 15% higher than the most recent PM emissions testing.

Condition 7.1.7(a)(v)

Condition 7.1.7(a)(v) addresses certain emission testing of the coal-fired boilers that may be required as a result of firing or burning material other than standard fuel in the coal-fired boilers. As present in the current permit, this condition generally requires that testing must be conducted for the coal-fired boilers for PM and CO emissions if in a calendar quarter standard fuel (i.e., coal, fuel oil and natural gas) make up less than 97 percent, by weight, of the material burned in a boiler. The revised permit would change this to require such testing be conducted if the alternative fuel burned during the quarter is greater than 3 percent by weight.

Changes would also be made to address aspects of this testing that were not considered or addressed during the development of the current permit. This testing would not be required if testing has already been conducted for the boilers while burning non-standard fuel at a level that would satisfy the requirements established by this condition. This testing would also not be required to be conducted while burning non-standard fuel material at a rate that would exceed the rates at which the feed systems for such materials would be operated. In addition, various changes would be made to clarify the language of this condition.

In Condition 7.1.7(a)(v)(A), changes would be made so that this testing would not be required for the coal-fired boilers if testing has already been conducted while burning non-standard fuel at a level that would satisfy the requirements of this condition. For this purpose, this prior testing must have been conducted while burning non-standards fuels at a level that is equal to or greater than the level at which such material was burned in a calendar quarter or at the maximum rate at which the feed systems for these materials would be operated. This change was needed because the current permit did not consider that the Permittee might proactively conduct the emissions testing that would otherwise be required by this condition, before it was actually required by this condition. The current permit was predicated upon this testing being conducted following a calendar quarter in which the amount of standard fuel burned in a boiler was less than 97 percent by weight.

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26 Based on recent operation, it is likely that future testing would be able to be conducted at least at 90% load.
27 In the most recent PM emission tests under normal operating conditions, the measured emissions were 4 percent of the applicable state standards, for a 96 percent compliance margin.
28 For the coal-fired boilers, as addressed in Condition 7.1.11, non-standard fuels or fuel materials include used oil and boiler cleaning residue, and alternative fuel materials that do not constitute waste and were not generated from either municipal waste or hazardous waste.
In Condition 7.1.7(a)(v)(B), changes would be made so that this testing would not be required to be conducted while burning non-standard fuel at a rate that would exceed the maximum rate at which the feed systems for such materials are operated. This change was needed because this condition in the current permit provided that the percentage of non-standard fuel burned during this testing must be at least 1.25 times the percentage at which this material was burned in the calendar quarter that triggered the need to conduct this testing. This requirement was intended to assure that this testing would occur during appropriate operating conditions that would conservatively address the effect of burning non-standard fuel on emissions. The current permit did not consider that this requirement might require that the feed systems for these materials be operated at rates that would be higher than the capacity of these systems or the rates at which these systems would ever be operated. The revised permit would still require this testing to be conducted under appropriate operating conditions. This is because this testing would still be required to be conducted at least at 1.25 times the percentage at which such material was burned in the quarter that triggered the need for testing or at the maximum rate at which the feed systems would be operated, whichever is lower. This addresses circumstance in which the use of non-standard fuel is constrained by the operation of the feed systems. It also addresses the circumstances if the use of these materials is far below the level at which the feed systems would be operated, so that the 1.25 time factor governs.

Various changes would also be made to Condition 7.1.7(a)(v) to clarify terminology. These provisions would no longer refer to the “fuel supply” for the boilers. It was unclear whether this phrase referred to the material that was actually burned in the boilers, as was intended, or the material that was supplied to the Permittee and was available to be burned in the boiler. In addition, “burning” or “burned” would be used in place of the word “firing”. This change was made to use terminology that is simpler and now more common.

Condition 7.1.7(b)(i) and (ii)

In the current CAAPP permit, Condition 7.1.7(b)(i) requires that measurements of CO and PM emissions be performed at the maximum operating loads of the affected boilers and other operating conditions that are representative of normal operation. This condition would be revised to allow this testing to be performed at 90 percent of better of the seasonal maximum operating loads of the affected boilers or related turbines. This provision would now reflect current site configuration and is consistent with testing at maximum loads done during routine RATA testing.

Condition 7.1.7(b)(ii) would be revised to correct specific language related to positioning of measurement equipment during testing. The language that would be changed is erroneous as it addresses plants with multiple boilers having a common flue system. The coal boilers at Coffeen historically had separate stacks. While they now have a common stack, the stack has separate flues for each boiler.

Condition 7.1.7(e)(iii)(F)

Condition 7.1.7(e) deals with required contents of test reports that the Permittee must submit for emissions testing conducted for the coal-fired boilers. Condition 7.1.7(e)(iii)(F) would be added to the information that must be provided in these reports for the operation of the boilers during testing. It requires that these reports include information on the amount of
non-standard fuel burned during testing if the testing was conducted to address emissions while burning non-standard fuel, as is required by Condition 7.1.7(a)(v).

**Condition 7.1.9(a)(vi)**

This condition, which requires recordkeeping related to the combustion evaluations that must be conducted for the coal-fired boilers, would be revised to maintain consistency with the changes made in Condition 7.1.6(a).

**Condition 7.1.9(e)(iii)**

Records for information required by 40 CFR Part 75 would be added.

**Condition 7.1.9(f)(ii) and (iii)**

Records that are needed to verify compliance with 35 IAC Part 217 Subpart V would be added to the condition. Also, NOX records required by 40 CFR Part 75 would be added.

**Condition 7.1.9(h)(ii)(A)**

The information required to be recorded for boiler startups would be clarified.

**Condition 7.1.9(h)(ii)(B) and (C)**

This condition deals with recordkeeping associated with startup of the coal-fired boilers. The current CAAPP Permit requires that the Permittee maintain basic information, such as a copy of the startup procedures for the boilers and the date, time, duration, and description of each startup.

The intent of this condition was to require additional documentation and explanation for boiler startups that are out of the ordinary or atypical. For startups that take longer than normal, this would include information for why the startup was prolonged and the additional emissions that may have occurred as a result.

This condition would be revised to clarify the additional records and reporting required for atypical startups. The revisions are consistent with language used in comparable conditions in CAAPP permits for other coal-fired power plants in Illinois.

**Conditions 7.1.9(i)(ii)**

Various changes would be made to clarify these conditions dealing with the records that the Permittee must keep pursuant to 35 IAC 201.263 for incidents involving continued operation of the coal-fired boilers with excess opacity or emissions during malfunction or breakdown. In Condition 7.1.9(i)(ii), the phrase “including malfunction and breakdown” would be replaced with “during malfunction and breakdown”. This change eliminates ambiguity in the scope of this condition. As originally written, this condition might have been incorrectly interpreted as generally applying to malfunctions and breakdowns of the boilers that result in excess emissions. In fact, this condition only applies to malfunctions and breakdowns of a boiler involving excess opacity or emissions of PM or CO. This is apparent as it requires records for “malfunctions or breakdowns as addressed by Condition 7.1.3(c)”. Condition
7.1.3(c) only addresses exceedances of the opacity, PM and CO standards that apply to the coal-fired boilers. In this regard, as required by 35 IAC Part 201 Subpart I when appropriately requested by a source in its application, Condition 7.1.3(c) provides the first-stage of approval or “recognition” that in certain circumstances continued operation of an emission unit with particular state emissions standards being violated may occur during malfunction or breakdown.

In Condition 7.1.9(i)(ii)(A), a parenthetical would be added following “duration” to further define this term, “(i.e., the length of time during which operation continued with excess opacity or emissions until corrective actions were taken or the boiler was taken out of service).”

In Condition 7.1.9(i)(ii)(B), the phrase “to reduce the duration” would be added to clarify that this provision addresses the records that must be kept by the Permittee describing the actions that are taken during a malfunction or breakdown incident to reduce the duration of the incidents. Records related to the actual duration of an incident are already separately required by Condition 7.1.9(h)(ii)(A).

Condition 7.1.9(i)(ii)(D) addresses certain additional records that must be kept for particular malfunctions and breakdowns involving the coal-fired boilers. As related to emissions, these records are required for incidents in which the applicable hourly standard for PM or CO was exceeded during the incident. These records are also required for incidents in which emissions may have exceeded the applicable standard during the incident. Changes would be made to clarify the circumstances in which the additional records must be kept for possible exceedances, when a standard may have been exceeded. The requirement for actual exceedances of standards is unchanged. For possible exceedances, the revised condition would now require that the additional records must be kept if the Permittee “…believes that compliance with the PM standard likely was not maintained.” The change to the provision clarifies that the additional records need not be kept simply because there is a possibility, perhaps only a hypothetical possibility, that the PM standard was exceeded. For CO, the change to this provision reflects further consideration by the Illinois EPA and a conclusion that the Permittee may more readily determine compliance with the CO standard. This is because “add-on control equipment” is not used for CO and proper functioning of the combustion system is addressed by regular combustion tuning. Accordingly, for CO, the additional records need not be kept for possible exceedances of the applicable standard and need only be kept for known exceedances of the standard.

Condition 7.1.9(i)(ii)(D)(III) in the current permit required the Permittee to keep records for malfunction and breakdown incidents for the magnitude of the PM or CO during the incident. Changes would be made to clarify the nature of the information that must be included in these records that address the magnitude of emissions during incidents. To accomplish this, Condition 7.1.9(i)(ii)(D)(III) would be replaced by two new conditions, Conditions 7.1.9(h)(ii)(E) and (F), dealing with PM and CO emissions, respectively. This

29 For opacity exceedances, these additional records, which are related to the need for continued operation during exceedances and the preventative measures that were taken, are only required for incidents in which the opacity standard is exceeded for more than two hours. The Permittee must address incidents in which the duration of opacity exceedances is two hours or less as a group in its quarterly compliance reports for the coal-fired boilers. For example, refer to Condition 7.1.10-2(d)(v).
separation was needed because of the difference in the approach to the exceedance of PM and CO standards, where possible exceedances must be addressed for PM. Both of these new conditions would now provide that the records must include “estimates of the magnitude of emissions ... , with magnitude estimated on a qualitative or, if available, quantitative basis.” In the current permit, Condition 7.1.9(i)(ii)(D)(III) simply required the Permittee to keep “an explanation of whether emissions of PM and CO may have exceeded an applicable standard...” This change explicitly recognizes that the information for the magnitude of emissions that is required may either be qualitative in nature, e.g., small, moderate or large, or quantitative in nature. This was implicit in the current permit as it referred to an estimate of the magnitude.\(^{30}\)

In addition, other minor revisions were made for clarity and consistency.

**Condition 7.1.10-1(a)**

Condition 7.1.10-1(a) deals with the prompt reporting of deviations for the coal-fired boilers. Conditions 7.1.10-1(a)(i), (ii) and (iii) delineate the applicable requirements for such reporting for different classes of deviations. Various changes would be made to these conditions to more clearly set forth what is required as prompt reporting for different classes of deviations.

Condition 7.1.10-1(a)(i) (Conditions 7.1.10-1(a)(i) and (ii) in the current CAAPP permit) addresses prompt reporting for “particular deviations” from the applicable standards for PM and opacity. These particular deviations are deviations for which reporting is separately required under Condition 7.1.10-3(a). For these boilers, Condition 7.1.10-3(a) requires immediate reporting and/or follow-up reporting for exceedances associated with malfunction or breakdown incidents, as provided for by 35 IAC 35 IAC 201.263.\(^{31}\) In the revised permit, Condition 7.1.10-1(a)(i) would now address both PM and opacity exceedances, combining Conditions 7.1.10-1(a)(i) and (ii) in the current permit. This condition continues to provide that prompt reporting for these particular deviations is to be made by reporting in accordance with Condition 7.1.10-3.

Condition 7.1.10-1(a)(ii) (Condition 7.1.10-1(a)(iii) in the current CAAPP permit) addresses prompt reporting for deviations from the applicable standards for opacity, PM, SO\(_2\) and NO\(_x\) and associated requirements for continuous monitoring. In the revised permit, this condition continues to generally provide that prompt reporting for these other deviations is to be made by reporting in the quarterly compliance reports for the boilers. The revised condition would now recognize the exception to this practice, i.e., the

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\(^{30}\) An “estimate” is an approximate calculation, a judgment, or the extent of a thing. The “magnitude” of a thing is its greatness of size, volume or extent, or its importance or significance. Accordingly, the original provision only required the Permittee to conduct an evaluation for the level of emissions during an incident that potentially might conclude only that emissions were possibly noncompliant, slightly noncompliant, moderately noncompliant or seriously noncompliant. The provision did not require a precise numerical quantification for emissions of either PM or CO.

\(^{31}\) As will be discussed in more detail later, Condition 7.1.10-3(a) requires follow-up reports within 15 days of malfunction/breakdown incidents that involved continued operation of a coal-fired boiler in violation of the PM standard. It also requires immediate reporting accompanied by follow-up reports for incidents in which the opacity standard is exceeded for eight or more six-minute averages in a two-hour period.
deviations from PM and opacity standards which must be separately reported under Condition 7.1.10-3(a), as addressed by Condition 7.1.10-1(a)(i), as has already been discussed.

Condition 7.1.10-1(a)(iii) (Condition 7.1.10-1(a)(iv) in the current CAAPP permit) addresses prompt reporting for “other deviations”, i.e., deviations that are not addressed in the preceding provisions of Conditions 7.1.10-1(a). In the revised permit, Condition 7.1.10-1(a)(iii) continues to provide that prompt reporting for other deviations is to be made by reporting in the quarterly reports for the boilers. The provision would be made clearer by no longer defining these deviations by exclusion. That is, these other deviations are not described as being deviations that are not addressed by the preceding conditions. These other deviations are instead directly described as being deviations from work practice requirements and recordkeeping requirements.

Condition 7.1.10-1(b)

For the coal-fired boilers, Condition 7.1.10-1(b) sets forth requirements for “periodic reporting” of deviations.32 Various changes would be made to clarify what is required as periodic reporting for deviations that have already been reported as part of prompt reporting. These “already reported deviations” are addressed in Condition 7.1.10-1(b)(i). These deviations would involve PM emissions or opacity and have been addressed in event-specific reporting pursuant to Condition 7.1.10-3(a). For these deviations, Condition 7.1.10-1(b)(i) would now provide that the Permittee must provide a listing of the notifications and reports that have already been provided to the Illinois EPA. In the current permit, the Permittee was required to provide a listing of these deviations that would include identification of the notifications and reports that have already been provided for those deviations. In addition, because of the restructuring of Condition 7.1.10-1(a), which deals with prompt reporting of deviations, a change would be made to the cross-reference in Condition 7.1.10-1(b)(i). This condition would now refer to Condition 7.1.10-3(a), rather than Conditions 7.1.10-1(a)(i) and (ii). This is the condition in the revised CAAPP permit that, as part of prompt reporting of deviations, would now require notifications and reports for certain deviations separate from reporting in the quarterly reports.

A change would also be made in Condition 7.1.10-1(b)(ii), which deals with deviations that have not already been separately reported to the Illinois EPA. Because of the restructuring of Condition 7.1.10-1(a), a change would also be needed to the cross-reference in this permit. It would now refer to Conditions 7.1.10-1(a)(ii) and (iii) rather than Conditions 7.1.10-1(a)(iii) and (iv).

Condition 7.1.10-2(a)(i)(B)

Revisions to this condition would be made so that the information that must be periodically reported related to the load at which the boilers have operated would be consistent with the new criterion for retesting that would be set in Condition 7.1.7(a)(ii), i.e., operation at 15% higher than the greatest load on the boiler during the most recent set of PM tests for more than 72 hours.

32 Under the CAAPP program, sources must provide both prompt reports for individual deviations and periodic, or comprehensive, reports for all deviations. (Refer to Sections 39.5(7)(f)(i) and (f)(ii) of the Act, respectively.)
Condition 7.1.10-2(a)(i) and (ii)

Condition 7.1.10-2(a)(ii) would be restructured to improve clarity. Condition 7.1.10-2(a) generally addresses the required contents of the quarterly compliance reports that are required for the coal-fired boilers. Along with the information listed in Condition 7.1.10-2(a)(i), these quarterly reports must include detailed information related to \( \text{SO}_2 \) emissions, \( \text{NO}_x \) emissions and emissions of PM and opacity from each affected boiler as specified in Conditions 7.1.10-2(b), (c) and (d), respectively. Condition 7.1.10-2(a)(ii) would now provide a cross-reference to these subsequent provisions in Condition 7.1.10-2.

Condition 7.1.10-2(b)(iii)(C)

The condition would be revised to specify that the one-hour and three-hour average \( \text{SO}_2 \) emissions for each three hour block of excess emissions is to be included in quarterly reports.

Condition 7.1.10-2(b)(iii)(D)

The phrase “if known, including whether such excess emissions occurred during startup, malfunction or breakdown of a boiler” would be added at the end of this condition so the requirements for reporting cause of excess \( \text{SO}_2 \) emissions would be consistent with the requirements for reporting cause of excess opacity in Condition 7.1.10-2(d)(iii)(A)(IV).

Condition 7.1.10-2(d)(iv)

Condition 7.1.10-2(d)(iv) deals with the information that the Permittee must include in its quarterly compliance reports for the coal-fired boilers for periods of emissions in excess of the applicable PM emission standard, 35 IAC 212.202. In the revised permit, a change would be made to Condition 7.1.10-2(d)(iv)(A)(III) for purposes of clarification. For such exceedances, this condition would now require that these reports must include, in addition to other required information, information for “The qualitative or, if available, quantitative magnitude of the excess emissions.” In the current permit, this condition required the source to provide information for “The magnitude of the exceedance.” As already discussed, this change explicitly recognizes that the information for the magnitude of emissions in excess of 35 IAC 212.202 that is required may be either qualitative or quantitative in nature. Also, other minor revisions would also be made to this condition to improve clarity and consistency.

Condition 7.1.10-2(d)(iii) and (v)

These conditions deal with information that must be included in quarterly reports related to opacity exceedances. These conditions would be revised to more clearly specify information that the Permittee must include in quarterly reports regarding all opacity exceedances during the quarter as well as further information that must be included in these reports regarding opacity exceedances or groups of opacity exceedances that resulted from the same or similar causes. The revised conditions better reflect the required contents of these reports, as specified by Section 39.5(7)(f)(ii) of the Act.

Specifically, Condition 7.1.10-2(d)(iii) would now clearly identify the items that the Permittee must include in a summary of information for each period of
excess opacity during the quarter. The requirement to include a detailed explanation of the cause and corrective actions for each period of excess opacity would be removed from this condition because this information would be addressed in Condition 7.1.10-2(d)(v). This condition continues to require the Permittee to identify the cause for each period of excess opacity, if known, and any corrective actions taken.

Condition 7.1.10-2(d)(v) would now require the Permittee to provide further information for opacity exceedances or groups of opacity exceedances with “recurring” causes or “new” causes during the quarter. The conditions would define “recurring” causes as those that also resulted in exceedances during the previous quarter and “new” causes as those that did not result in opacity exceedances during the previous quarter.

For “recurring” cause opacity exceedances or groups of opacity exceedances each quarterly report shall include: an explanation of any particular circumstances or factors during the quarter that affected the number or magnitude of such exceedances; a discussion of any changes in the corrective actions taken in response to such exceedances during the quarter as compared to the previous quarter; and a discussion of any additional preventative measures that were taken during the quarter to reduce the number or magnitude of exceedance(s).

For “new” cause opacity exceedances or groups of opacity exceedances each quarterly report shall include: an explanation of the cause(s) or probable cause(s) of such exceedance(s), to the extent known; a discussion of any particular circumstances or factors during the quarter that resulted in such exceedance(s); the corrective action(s) taken, if any, with explanation of how those action(s) functioned to end the exceedance(s); and a discussion of any preventive measures taken to reduce the number or magnitude of exceedance(s).

The requirement to include PM exceedances in the Condition 7.1.10-2(d) would be removed because periods of excess PM emissions would now be adequately addressed in Condition 7.1.10-2(d)(iv) as previously addressed in the Statement of Basis.

**Condition 7.1.10-2(d)(vi)**

This condition would be revised to better specify the scope of the required glossary of terms that the Permittee is to prepare and attach to its periodic reports concerning opacity and PM emissions. The condition would now provide that this glossary is to address “specialized technical terms” used by the Permittee in those reports rather than “common technical terms”. This would result in a more useful glossary with definitions for terms that might otherwise be unfamiliar to or misunderstood by individuals that review these reports.

**Condition 7.1.10-3(a)**

This condition deals with reporting in the case of continued operation of the coal-fired boilers during malfunctions and breakdowns. The condition requires the source to provide certain notifications and reports concerning incidents when the operation of a boiler continued with excess emissions during malfunction or breakdown of the boiler.\(^{33}\) All such incidents must be reported

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\(^{33}\) Conditions 7.1.10-3(a)(ii) requires incidents in which the PM standard was exceeded to be reported to the Illinois EPA within 15 days.
by the source in its quarterly reports under Condition 7.1.10-1(b) (periodic reporting of deviations) as well as Condition 7.1.10-2(d) (reporting related to opacity and PM emissions). Condition 7.1.10-3(a)(i) further provides that the source must immediately notify the Illinois EPA for certain incidents. For example, as related to excess opacity, the Permittee must immediately notify the Illinois EPA when the opacity from a boiler exceeds the applicable opacity standard for the specified number of 6-minute averaging periods (unless it has begun shutdown of the boiler by that time). Condition 7.1.10-3(a)(ii) further provides that the source must provide incident-specific follow up reports for certain incidents. These provisions in Condition 7.1.10-3(a) implement 35 IAC 201.263, which provides that, unless otherwise specified in a permit, sources must immediately notify the Illinois EPA of continued operation with excess emissions during malfunctions or breakdowns when a permit provides first-stage preliminary approval for violations of state standards during malfunction or breakdown.

In the introductory paragraph of Condition 7.1.10-3(a), the Permittee expressed concerns about the phrase “incidents when operation of an affected boiler continued with excess emissions, including continued operation during malfunction or breakdown”. This phrase would be revised to clarify that this condition applies to “incidents when operation of an affected boiler continued with excess emissions or excess opacity during malfunction or breakdown”, to clarify the scope of the condition.

Minor revisions would be made to Condition 7.1.10-3(a)(i) to improve clarity and consistency.

Condition 7.1.10-3(a)(ii) would also be revised to improve clarity and consistency and for greater simplicity. For example, rather than restating the required contents of these reports, this condition would now refer to the applicable records that must be kept for such incidents, as addressed in Condition 7.1.9(i)(ii).

**Condition 7.1.12(a)(ii)**

This condition addresses 35 IAC 212.123(b), which provides that opacity may be greater than 30 percent, 6-minute average, if opacity was not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such emissions only come from one source within a 1000 foot radius, limited to three times in any 24 hour period.

As discrete measurements of opacity may be used to comply with this standard, Condition 7.1.12(a)(ii)(A) would be revised to allow discrete measurements to be made at up to 15 seconds intervals, instead of the current 10 seconds interval. With this revision, the permit would still provide for the reasonable implementation of 35 IAC 212.123(b) by the Permittee. This revision will also potentially reduce the amount of data that must be considered when the Permittee elects to show compliance by means of this alternative to 35 IAC 212.123(a). It will also accommodate existing software for continuous opacity monitors systems that records measured data at an interval greater than 10 seconds.

In addition, the compliance procedures in Condition 7.1.12(a)(ii)(C), (D) and (E) would be simplified.
Condition 7.1.12(a)(ii)(C) addresses information that the source must have for the opacity of emission units at the source other than the coal-fired boilers if it relies on 35 IAC 212.123(b). The revised permit would now simply provide that the source must have representative opacity data for such other units, as is required to be collected pursuant to the permit. Upon further consideration, it was concluded that more extensive requirements need not be set for this data for other emission units.\textsuperscript{34} The aspect of 35 IAC 212.123(b) that Condition 7.1.12(a)(ii)(C) addresses is that this rule is only available for one emission unit at a source in any hour, unless the emission units are located more than 1,000 feet apart. This aspect of this rule can be addressed using representative opacity data for emission units other than the coal-fired boilers. Short-term, concurrent opacity data need not be available for these other units since this rule is only likely to be relied upon for the coal-fired boilers. This is because coal-fired boilers can have transitory variation in the levels of opacity that would be such that they could potentially be covered by 35 IAC 212.123(b).

Condition 7.1.12(a)(ii)(D) addresses the information that must be included in quarterly compliance reports for the coal-fired boilers with respect to reliance on 35 IAC 212.123(b). If the source relies upon this rule, the revised permit would now simply require that the source confirm in the compliance report that the relevant short-term opacity data shows that the terms of this rule were met. It does not include other incidental language.\textsuperscript{35} Upon further consideration, it was determined that the other, incidental language in this provision in the initial permit, which could be construed as codifying a particular interpretation of 35 IAC 212.123(b), need not be included in the permit.

Condition 7.1.12(a)(ii)(E) addresses the notice to the Illinois EPA that is appropriate if the source changes aspects of its procedures associated with reliance on 35 IAC 212.123(b). The revised permit would now simply provide that the source must notify the Illinois EPA if it changes the type of short-term opacity data that it is collecting for the coal-fired boiler. In addition, this notification is to be provided with the next quarterly report. Upon further consideration, it was recognized that the specific aspect of the source’s procedures that is of interest to the Illinois EPA is the type of short-term opacity data that is collected. In addition, any changes to the type of short-term data by a source can be appropriately considered by the Illinois EPA during the routine review of quarterly compliance reports. The Illinois EPA does not need to review proposed changes to the type of short-term opacity data.

\textsuperscript{34} Condition 7.1.12(a)(ii)(C) in the initial permit required that the source: For other emission units at the source, have the ability to review short-term opacity data representative of such units during hours in which the opacity of the affected boilers on a short-term basis may exceed 30 percent, to confirm that the opacity of any other unit at the source did not exceed 30 percent in any minute during an hour in which the short-term opacity of the affected boilers may have exceeded 30 percent.

\textsuperscript{35} Condition 7.1.12(a)(ii)(D) in the revised permit simply requires that the source: In the reports required by Condition 7.1.10-2(d), confirm that the relevant short-term opacity data shows that the terms of 35 IAC 212.123(b) are satisfied when 35 IAC 212.123(b) is relied upon. Condition 7.1.12(a)(ii)(D) in the initial permit required that the source: In the reports required by Condition 7.1.10-2(d), confirm that the relevant short-term opacity data, reviewed as above, shows that the terms of 35 IAC 212.123(b) are satisfied, when 35 IAC 212.123(b) is relied upon as the basis to claim that the affected boilers did not violate Condition 7.1.4(a) even though opacity on a 6-minute average exceeded 30 percent.
data in advance of any such change since the source must continue to satisfy all elements of 35 IAC 212.123(b) if it is relied upon. For both the source and the Illinois EPA, the changes to Condition 7.1.12(a)(ii)(E) appropriately simplify this aspect of the compliance procedures associated with reliance on 35 IAC 212.123(b).

**Sections 7.2, 7.3 and 7.4: Material Handling Equipment**

**Conditions 7.2.3(a)(ii), 7.2.3(c) and 7.2.5(b)**

Conditions 7.2.3(a)(ii) and 7.2.3(c), which impose the requirements of 40 CFR 60 Subpart Y on certain coal conveying equipment and coal storage systems, would be removed from the permit. This is because the subject coal handling operations addressed by Section 7.2 of the permit are not subject to this rule. The coal crushers, addressed in Section 7.3 of the permit, are the only equipment currently at the facility that is subject to 40 CFR 60 Subpart Y.

Condition 7.2.5(b) would be added to the permit to indicate that the coal handling operations addressed by Section 7.2 of the permit are not subject to 40 CFR 60 Subpart Y.

**Condition 7.2.4(c) and 7.2.5(a)**

These conditions would be added to the permit because the coal transfer conveyors and surge bin with bin vent filter are subject to the “process weight rate rule”, 35 IAC 212.321.

As a result, Condition 7.2.5(a) would be revised to specifically identify the subject operations that are not subject to 35 IAC 212.321.

**Conditions 7.2.6(a), 7.3.6(a) and 7.4.6(a)**

Conditions 7.2.6(a), 7.3.6(a) and 7.4.6(a) address the control measures for handling and processing of coal and handling of fly ash, as well as the related requirements to “operate and maintain” these control measures on an on-going basis.

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36 Various control measures have long been used by Coffeen and would continue to be used for the subject units, independent of the CAAPP permit, for reasons related to worker safety, reliability of operation, and operational costs. The inclusion of the requirement for use of control measures in the CAAPP permit is significant in that it would codify this practice and be accompanied by provisions for verifications.

In general, the current CAAPP permit did not identify the specific control measures that would be used for each subject unit but, rather, placed the responsibility for such identification upon the Permittee. The revisions to the permit would retain the intent of the current permit. They would continue to allow the Permittee to select the control measures used for PM emissions and contain an illustrative list of the types of control measures that would be used for this purpose. In this regard, the permit would provide for use of the control measures for dust that have historically been used by the Permittee.

At the same time, consistent with the current permit, the revised permit also would retain requirements to make the use of the selected control measures enforceable as a practical matter. The Permittee must maintain a record identifying these measures and, if different measures would potentially be used depending upon the circumstances, the circumstances in which particular control measures would be used (See also discussion of Condition 5.2.7). The CAAPP permit generally identifies the control
In Conditions 7.2.6(a)(i), 7.3.6(a)(i) and 7.4.6(a)(i), various changes to the language would be made. First, the revised language would now focus on PM emissions generally instead of simply visible emissions. The modifying language “minimize” and “provide assurance of compliance with” would be replaced with the language “to support periodic monitoring”. Second, the word “minimize” is ambiguous and usually lacks regulatory meaning. The phrase “provide assurance…” is also vague. The new language would more clearly reflect the objective for these conditions, consistent with the Illinois EPA’s intent in the current permit. Moreover, given that there are no underlying state or federal regulatory requirements for these work practices, the revised language would more closely align with the supporting legal authority under the CAAPP to accomplish the purposes of the requirements for Periodic Monitoring in Section 39.5(7)(a) of the Act.

In Conditions 7.2.6(a)(ii), 7.3.6(a)(ii) and 7.4.6(a)(ii), minor wording changes would be made to more clearly reflect that these provisions do not constitute stand-alone obligations separate from the preceding requirements to implement and maintain control measures. In addition, revisions would more clearly reflect that compliance with the accompanying recordkeeping for the control measures (together with applicable testing and inspection) satisfied the over-arching work practices obligation in Conditions 7.2.6(a)(i), 7.3.6(a)(i) and 7.4.6(a)(i). Both changes to the relevant text are consistent with the original intent of the conditions.

Condition 7.2.6(a)(iii)

This condition would be removed from the permit since it is a requirement of 40 CFR 60 Subpart Y. As discussed earlier, there are no emission units subject to this NSPS addressed in Section 7.2 of the permit.

Conditions 7.2.7(a)(i)(B), 7.3.7(a)(i)(B) and 7.4.7(a)(i)(B)

Conditions 7.2.7(a), 7.3.7(a) and 7.4.7(a) require the Permittee to conduct certain “mandatory” observations of opacity in accordance with Method 9 for all subject units to authoritatively address compliance with 35 IAC 212.123. Conditions 7.2.7(a)(i)(B), 7.3.7(a)(i)(B) and 7.4.7(a)(i)(B) would be revised to require subsequent mandatory opacity observations to be conducted every three years, rather than during the final year of the term of the permit.

Conditions 7.2.7(b)

This condition would be added because of the addition of 35 IAC 212.321 in Condition 7.2.4(c).
Condition 7.4.7(a)(ii)

Observations of opacity are required as part of Periodic Monitoring for the emission units that handle fly ash. The required duration for these observations is specified in Condition 7.4.7(a)(ii). For units that handle fly ash, like units that handle coal, the duration of observations must be 30 minutes unless the opacity that is observed during the first 12 minutes are within a certain level. In the current CAAPP Permit, Condition 7.4.7(a)(ii) provides that opacity observations for units handling fly ash could conclude after 12 minutes if the opacity during the first 12 minutes of observations (i.e., two non-overlapping 6-minute averages) were both less than 5 percent. In the revised permit, Condition 7.4.7(a)(ii) provides that a required observation can conclude after 12 minutes if both values of opacity are no more than 10 percent. This makes this level the same as the level that was specified for the units handling coal (See Condition 7.2.7(a)(ii)). Upon further consideration, the Illinois EPA has concluded that it is appropriate for the criterion for allowing shorter periods of opacity observations for fly ash to be identical to those for coal handling operations. While there are differences in the particulate generated from these units, there are also differences in the control measures for these units, as discussed further below, that address or compensate for the differences in the potential emissions from these units. Moreover, even if there were differences in the emissions of the units, the Illinois EPA has concluded that it would not necessarily justify use of a different criterion for allowing a shorter duration for opacity observations as they are subject to the same opacity standard, 35 IAC 212.123.

Condition 7.4.7(b)

This condition currently requires testing of the PM emissions of the fly ash handling operations upon request from the Illinois EPA. However, these operations do not actually have stacks or vents that would be amenable to emissions testing. As such, it is impractical and to directly measure emissions of these operations by testing and it is unreasonable to indicate that such testing could be required. Therefore, Condition 7.4.7(b) would be removed from the revised permit.

Conditions 7.2.8(a), 7.3.8(a) and 7.4.8(a)

These conditions would be revised for greater clarity and consistency of the inspection and inspection oversight requirements.

For emission units that handle fly ash (Section 7.4), weekly inspections are required by the current CAAPP Permit. For emission units that handle coal, monthly inspections are required. In discussions, the Permittee questioned this difference, suggesting that the frequency of inspections for units that handle fly ash should also be monthly.

Upon further analysis, the Illinois EPA has concluded that weekly inspections are only needed for the loadout of fly ash. Monthly inspections will be adequate for other units handling fly ash. This is because these other units operate in a consistent manner. Their particulate emissions are controlled by metal ductwork and filters that are fixed in place, generally function reliably and are not exposed to potential damage during routine operation. As such, degradation of the performance of these control measures for these units should be able to be adequately identified and addressed with monthly inspections.
By contrast, the control of particulate emissions during loadout of fly ash depends upon both equipment and implementation of appropriate operating procedures by personnel. The equipment for loadout of fly ash is also subject to potential damage during operation. These circumstances continue to warrant more frequent, weekly inspections for the loadout of fly ash.

Accompanying this change to the required inspection frequency for units handling fly ash other than load out, the requirements of Condition 7.4.8(b) with respect to opacity observations have been made more stringent for load out of fly ash by changing the frequency of required opacity observations from annual to quarterly.

**Conditions 7.2.8(b), 7.3.8(b), 7.4.8(b) and 7.4.8(c)**

These address observations for visible emissions and/or opacity that must be conducted in conjunction with inspections of the subject units. The current permit requires the Permittee to conduct observations for visible emissions and/or opacity in conjunction with the inspections of the subject units, so that observations are conducted for each subject unit at least once during each calendar year. Other requirements for these observations would now be addressed by these conditions. For example, these conditions would provide that the observations for visible emissions must be conducted in accordance with 35 IAC 212.107, Measurement Methods for Visible Emissions. This provides an appropriate linkage in state rule to Method 22. In addition, 35 IAC 212.107 specifies a minimum duration, one minute, for observations for visible emissions from an emission unit. These conditions also explain that the purpose of these observations is to determine compliance with the applicable opacity standard, 35 IAC 212.123. These conditions also confirm that advance notice to the Illinois EPA would not be required for these observations, unlike the opacity observations required by Conditions 7.2.7(a), 7.3.7(a) and 7.4.7(a).

**Conditions 7.2.9(b), 7.3.9(b) and 7.4.9(b)**

These conditions would be revised to improve clarity and for consistency; to delete current Conditions 7.2.9(b)(ii)(E), 7.3.9(b)(ii)(E) and 7.4.9(b)(ii)(E), because there is no “other information” necessary to ensure compliance other than stated in the condition; and to reflect that the initial Control Measures Record has been submitted.

**Conditions 7.2.10, 7.3.10 and 7.4.10**

The notification and reporting requirements for continued operation of the coal handling and processing operations and fly ash handling operations during malfunctions and breakdowns would be revised. Under these provisions, the Permittee is required to immediately notify Illinois EPA of incidents when the opacity from an affected operation exceeds 30 percent for eight or more six-minute averaging periods (unless the Permittee has begun to shut down the operation by that time). Revisions to the conditions would clarify reporting requirements and add the phrase “within a two-hour period” concerning opacity exceedances.
Changes in Section 7.6: Unit Specific Conditions for the Auxiliary Boiler

Condition 7.6.9(c) and (d)

Records for startups and continued operation during malfunctions and breakdowns would be clarified and updated with requirements similar to those for the coal boilers in Section 7.1 of the permit, and other revisions would be made to improve clarity and consistency.

Condition 7.6.10-1

This condition would be updated to incorporate additional reporting requirements as specified in the permit for other emission units and improve clarity. Report submittal deadlines would also be changed to conform with quarterly report submittal deadlines for the coal-fired boilers.

Condition 7.6.10-2

This condition would be updated to improve clarity. A requirement would be added for certification that only ultra-low-sulfur oil was combusted in the boiler.

Condition 7.6.10-3(a)(i)

This condition would be updated to improve clarity and to also include clarifications similar to those that would be made for other emission units.
CHAPTER 6 - PLANNED ISSUANCE OF A REVISED ACID RAIN PROGRAM PERMIT

The Illinois EPA is proposing to issue a revised Acid Rain Program Permit for Coffeen pursuant to and consistent with Section 39.5(17)(f) of the Illinois Environmental Protection Act and Titles IV and V of the federal Clean Air Act. This permit would address the two coal-fired electrical generating units at this source, which are referred to as Coffeen 01 and Coffeen 02 for purposes of the Acid Rain Program.

The revised acid rain permit would reflect applicable regulatory requirements of the federal Acid Rain Program. As such, it would require the source to hold SO₂ allowances under the federal Acid Rain Program to account for SO₂ emissions from the affected units. An allowance is a limited authorization to emit up to one ton of SO₂ during or after a specified calendar year. As the affected units are existing units under the Acid Rain Program, the source receives annual allocations of allowances from USEPA for the units, as would be identified in the permit. The source may also participate in allowance trading with other sources to obtain additional allowances or transfer surplus allowances.

The revised acid rain permit would also address the applicable limit under the Acid Rain Program that applies to NOₓ emissions of the affected units, 0.086 lb/mmBtu, annual average. In this regard, the permit would no longer provide for compliance with the NOₓ limits of the Acid Rain Program to be shown by averaging of the NOₓ emissions of the affected units with the NOₓ emissions of other units operated by the Permittee that are subject to the Acid Rain Program.

The revised acid rain permit would also address emission monitoring and reporting requirements under the Acid Rain Program. The permit would not affect the source’s responsibility to meet all applicable local, state, and federal requirements.

The Illinois EPA is proposing that the revised acid rain permit would expire on September 20, 2017, when the current CAAPP permit for Coffeen will expire. This will coordinate the term of the revised permit with the remaining term of the CAAPP permit for Coffeen, as is provided for by 40 CFR 72.73(b)(2). This will enable the renewal of the current CAAPP permit for the Coffeen and the next renewal of the acid rain permit to be processed at the same time.
CHAPTER 7 – SUPPLEMENTAL INFORMATION

This chapter provides supplemental information about the emission units at Coffeen to assist interested individuals in understanding the changes to the CAAPP permit that are now planned. All of the requirements described in this chapter are those that would be included in the draft permit.

7.1 Coal-Fired Boilers

This source has two coal-fired boilers whose steam output is used for generation of electricity.

CO emissions from the boilers are addressed by good combustion and work practices. NO\textsubscript{x} emissions from the boilers are controlled by combustion control measures including over fire air systems (OFA) and selective catalytic reduction systems (SCR). Emissions of PM and non-mercury hazardous air pollutant (HAP) metals are controlled by electrostatic precipitators (ESP). SO\textsubscript{2} emissions are controlled with wet flue gas desulfurization (WFGD) systems, which also control emissions of hydrogen chloride (HCl). Mercury emissions are controlled with the combination of the electrostatic precipitator (ESP) on each affected boiler, and the use of the WFGD systems. Mercury emissions may also be further controlled by mercury re-emission reduction systems (MRRS), which add activated carbon to the scrubitant used in the WFGD systems. This acts to reduce “re-emission” of mercury, i.e., emissions that result from mercury compounds returning to the elemental form as the flue gas passes through the WFGD systems.

The boilers are subject to emission standards for CO, NO\textsubscript{x}, PM (including non-mercury HAP metals), SO\textsubscript{2}, HCl and mercury and a standard for the opacity of emissions. The boilers are also subject to the federal Acid Rain Program, which imposes requirements on SO\textsubscript{2} and NO\textsubscript{x} emissions and requires that the boilers be equipped with continuous emissions monitoring systems (CEMS) for SO\textsubscript{2} and NO\textsubscript{x} with computerized systems for collection of emission data. The boilers are also subject to the federal Cross-State Air Pollution Rule (CSAPR), also known as the Transport Rule. CSAPR requires the Permittee to hold allowances for its actual annual SO\textsubscript{2} emissions and annual and Ozone Season NO\textsubscript{x} emissions.

For the PM standards for the MATS Rule, the Permittee has elected to perform quarterly emissions testing to demonstrate compliance. Recent performance testing of the boilers for PM showed compliance with the applicable limit (0.03 lb/mmBtu) with a significant margin of compliance (81%-89%). The MATS rule uses modified USEPA Test Method 5, with a sampling temperature of 320 ± 25°F. Periodic testing for PM is also required to verify compliance with the State emission standard for PM.\textsuperscript{37} CO testing is also required for the boilers and shall be performed in conjunction with this PM testing unless a CO test was completed during a prior relative accuracy test audit (RATA) for the continuous emissions monitoring systems. Required testing is to be conducted in the maximum operating load range and during other operating conditions that are consistent with normal operation of the boilers.

\textsuperscript{37} Slightly different methods are required for this testing. Testing for the State emission standards uses USEPA Method 5, with a probe temperature of 248 ± 25°F.
The boilers are subject to state and federal rules for mercury emissions which require continuous monitoring systems. The Permittee has elected to use sorbent trap monitoring systems to demonstrate compliance. The Permittee’s most recent quarterly reports submitted for the state requirements show a significant margin of compliance for the state limits and hence an even greater margin for the federal requirements since the state limit is significantly lower than the federal limit (0.0080 lb/GWh versus 0.0130 lb/GWh).

The boilers are operated pursuant to formal operating procedures. The CAAPP permit and MATS rule require that the boilers must be started up in accordance with procedures that are developed and maintained to minimize emissions. In addition, they must operate all continuous monitoring systems during startup and use “clean fuels” for ignition.

The boilers have the potential to exceed the applicable state emission standards for PM, CO and opacity during malfunction and breakdown. As provided by applicable state rules, subject to certain terms and conditions, the permit authorizes the Permittee to make certain claims related to continued operation with emissions in excess of applicable state emission standards during such events. In particular, such continued operation must be necessary to provide essential service or to prevent injury to personnel or severe damage to equipment. In addition, upon occurrence of excess emissions, the Permittee must, as soon as practicable, reduce boiler load, repair the affected boiler, remove the affected boiler from service, or undertake other action so that exceedances of state emission standards cease.

The Permittee must keep a variety of operational records for each boiler and its control equipment. For startup, records must be kept with the date, description, and duration of each startup. Further records are required if a startup does not progress in a routine manner to normal operation and compliance with applicable standards or if the Permittee’s startup procedures are not followed.

For malfunction/breakdown events, records must be kept for each incident when operation of a boiler continued with excess opacity or emissions. These records must include the date, duration, and description of the malfunction/breakdown; the corrective actions used to reduce the quantity of emissions and the duration of the incident; information on whether opacity exceeded the applicable standard for two or more hours; whether PM or CO emissions exceeded the applicable standard, and, if so, an estimate of the magnitude of emissions of that pollutant or those pollutants during the incident. For certain exceedances, these records must also include a detailed explanation of why continued operation of the affected boiler was necessary, and the preventative measures that have been or will be taken to prevent similar malfunctions or breakdowns in the future including any repairs to the affected boilers and associated equipment. Maintenance and repair records must also be kept.

The provisions of the permits for notification and reporting provide a hierarchy of reports. Excess PM emissions, which would be associated with malfunction/breakdown of equipment, must be followed by a written report within 15 days of the event. Extended opacity exceedances, in which the total duration of exceedances is greater than the specified time period are also to be reported immediately and then followed with a written report within 15 days if they persist for more than 120 minutes. The Permittee is also required to
submit quarterly reports that address exceedances, along with certain data from the continuous monitoring systems for $SO_2$ and $NO_x$.

The Permittee is required to provide information in the quarterly reports addressing all deviations from applicable requirements of the permit, including both emission control requirements and requirements for monitoring and recordkeeping. Such reports would also include information on the total operating hours; the greatest hourly load achieved by each boiler; a discussion of significant changes in the fuel supply; the number, total duration, and description of startups; information for $SO_2$, $NO_x$, PM and opacity; and operational information for continuous monitoring systems.

7.2 **Coal Handling Equipment**

The Permittee handles, transfers, and stores coal in a series of operations at the source. The PM emissions from coal handling are subject to an opacity limit and regulations that address stack and fugitive PM emissions.

The CAAPP permit generally requires implementation of emission control measures for coal handling. Coal processing equipment and fly ash handling equipment are currently subject to similar requirements. Similar requirements would be included in the draft permit for limestone and gypsum handling operations. Coffeen must specify the control measures that it will implement for the source in a plan or “Control Measures Record”. The permit also requires submittal of the Control Measures Record and any changes to this record to the Illinois EPA.\(^{38}\)

In general, monthly inspections of control measures are to be performed while the equipment is in use. These inspections are to confirm implementation of the work practices to control dust (PM emissions). Visible emissions observations are to be performed on an annual basis to confirm compliance with the opacity limit. Opacity observations are required every three years.

Records must be maintained for, among other things, the control measures that are being used, operational data, maintenance and repair activities, and certain malfunction/breakdown of equipment. Records of the required inspections must also be kept.

Reporting of deviations from the control measures required by the record that last more than 12 hours must occur within 30 days. All deviations from

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\(^{38}\) As required by the current CAAPP permit Coffeen submitted the Control Measures Record for coal handling, coal processing and fly ash handling equipment at Coffeen to the Illinois EPA on December 12, 2013.

For the coal handling equipment other than coal receiving, the primary control measures are enclosures, chutes, structures, dust suppression (i.e., water atomized foggers or chemical dust suppression sprays), dust collectors, and coal pile maintenance and compaction. Secondary control measures include water mist curtains, water sprays, or water wagon sprays when coal is unusually dry.

For the coal processing equipment, subject to the NSPS, 40 CFR Part 60 Subpart Y, the primary measures are enclosure of chutes and the Crusher Building. Secondary measures include water atomized foggers when coal is unusually dry.

For the fly ash handling equipment, the primary control measures are enclosed piping, building enclosure, fly ash receiver/separator, moisture addition prior to loadout and an adjustable loadout snorkel. Secondary measures are not indicated.
applicable standards or limitations in the permit must be addressed in a quarterly report, submitted with the quarterly report for the coal-fired boilers.

Based on the results of the opacity observations, the control measures that the Permittee is implementing for the material handling and processing equipment at Coffeen provide a significant margin of compliance with the applicable opacity limits and ensure compliance with substantive requirements in the permit. A report for opacity observations for the Coal Handling Equipment, Coal Processing Equipment and Fly Ash Handling Equipment, as required by the current CAAPP permit, was submitted to the Illinois EPA on October 9, 2014. A total of 38 observations were completed. All observations conducted demonstrated a significant margin of compliance with the applicable opacity limits in 35 IAC 212.123 and 40 CFR Part 60 Subpart Y. Based on observed opacity, the control measures identified in the Control Measures Record are sufficient to reasonably ensure continuous compliance.

7.3 Coal Processing Equipment

The Permittee prepares or processes coal at the source for use as fuel in its boilers with crushers that reduce the size of the coal. The PM emissions from coal processing are subject to opacity limits and regulations that address stack and fugitive PM emissions.

Monthly inspections of control measures are to be performed while the equipment is in use. These inspections are to confirm implementation of the work practices to control dust (PM emissions). Visible emissions observations are to be performed on an annual basis to confirm compliance with the opacity limit. Opacity observations are required every three years.

The opacity observations were conducted by Hastings Engineering in summer 2014. 35 IAC 212.123 requires that opacity of emissions from all of these units not exceed 30 percent. Opacity of emissions from certain units that are also subject to 40 CFR Part 60 Subpart Y must be less than 20 percent.

A total of 24 opacity observations were completed for units subject to only 35 IAC 212.123. There were only five with opacity greater than zero, the highest of which was 3.33 percent. All units were in compliance.

A total of 14 opacity observations were completed for units that are also subject to 40 CFR Part 60 Subpart Y. Observations for opacity were conducted for a building enclosing multiple emission points. Because opacity would be associated with fugitive emissions that could be from any equipment inside, the lowest applicable opacity limit (20 percent) was used to assess compliance. The opacity observed for each observation point for the building was zero and all units were in compliance.

The coal handling operations at which more than zero percent opacity was observed were coal unloading from rail cars and transfer of coal onto the storage pile. Six 6-minute averages were taken for the railcar unloading, three at zero and three with less than 1.0 percent opacity. For transfer of coal to the storage pile, four 6-minute averages were taken, with opacities of 0.63, 1.04, 2.08 and 2.92 percent. The only standard that applies to these operations is 30 percent opacity, per 35 IAC 212.123. The measures being used are fully sufficient to comply with this standard.

The results for fly ash handling were similar. Two of the four operations did not show opacity. Trace opacity was observed from the vent of the negative pressure pneumatic transfer system, i.e., 0.21 and 0.42 percent opacity. The loadout of dry fly ash showed distinct opacity, i.e., 3.33 and 3.13 percent opacity. These values for opacity were the result of certain individual readings of opacity at 10 percent, as well as 5 percent, combined with other readings of zero percent opacity. Again, this showed compliance with the applicable opacity standard, 35 IAC 212.123.
Records must be maintained for, among other things, the control measures that are being used, operational data, maintenance and repair activities, and certain malfunction/breakdown of equipment. Records of the required inspections must also be kept.

Reporting of deviations from the control measures required by the record that last more than 12 hours must occur within 30 days. All deviations from applicable standards or limitations in the permit must be addressed in a quarterly report, submitted with the quarterly report for the coal-fired boilers.

Based on observed opacity from the coal processing equipment, as detailed in Section 7.2 above, the control measures\textsuperscript{41} for this equipment are sufficient to reasonably ensure continuous compliance.

7.4 Fly Ash Handling Equipment

The Permittee operates ash removal systems at the source that handle ash collected at the coal-fired boilers in a dry state. The PM emissions from the fly ash handling equipment are subject to an opacity limit and regulations that address stack and fugitive PM emissions.

Regular monthly inspections of control measures are required of the operation while the equipment is in use. In addition, a weekly inspection is required for the fly ash load out operations.

Visible emissions observations are required at least annually except for fly ash load out operations, for which observations are required quarterly. Such observations are only required for ash handling equipment from which visible emissions, i.e., any visible emission, are normally observed. Opacity observations are required every three years.

The Permittee must keep records of, among other things, the specific control measures that are used, operational data, required inspections, and certain malfunction/breakdown of equipment.

Extended deviations from the identified control measures must be reported within 30 days. All deviations must be addressed in quarterly reports that accompany the quarterly reports for the coal-fired boilers.

Based on observed opacity from the fly ash handling equipment, as detailed in Section 7.2 above, the control measures\textsuperscript{42} for this equipment are sufficient to reasonably ensure continuous compliance.

\textsuperscript{41, 42} As identified in the Control Measures Record.
7.5 **Limestone and Gypsum Handling Equipment**
*(To be newly addressed by the revised CAAPP permit pursuant to the Reopening)*

The Permittee operates a limestone handling system that is used for unloading, storage and transfer of limestone and three wet ball mills for limestone preparation. The Permittee also operates a wet sluiced system for gypsum produced by the WFGD systems that is routed to the plant gypsum pond. Associated PM emissions are controlled by various control measures such as enclosures and covers.

Regular monthly inspections of control measures will be required of the operation while the equipment is in use.

Opacity observations of limestone and gypsum handling equipment will be required every three years.

The Permittee will be required to keep records of, among other things, the specific control measures required by the Control Measures Record that are used, operational data and required inspections.

Extended deviations from the identified control measures will be required to be reported within 30 days. All deviations will be required to be addressed in quarterly reports that accompany the quarterly reports for the coal boilers.

7.6 **Auxiliary Boiler**

The auxiliary boiler is a fuel combustion emission unit used to produce steam for auxiliary support, to provide heat, and to assist as needed with startups of boilers CB-1 and CB-2. The auxiliary boiler was constructed in 1992 and has a nominal capacity of 226 mmBtu/hr heat input. The boiler is not used to directly generate electricity. The boiler is fired with distillate fuel oil.

The boiler is subject to emission standards for CO, SO\textsubscript{2}, NO\textsubscript{x} and PM. It is also subject to standards for the opacity of emissions. The boiler is classified as a limited-use boiler because its annual capacity factor is limited to 10 percent.

The Permittee is required to install, operate, calibrate and maintain a continuous opacity monitoring system for the boiler.

The Permittee was required to conduct a performance test by the end of the second year of permit effectiveness for CO, PM and NO\textsubscript{x} emissions from the boiler. This testing has been completed and shows substantial compliance with all emissions limits. The Permittee is also required to complete a tune-up every five years on the boiler.

The Permittee is required to keep fuel oil receipts which confirm the use of ultra-low-sulfur fuel oil in the boiler, in addition to keeping records for boiler operation.

The Permittee is required to promptly report deviations from applicable emission limits, and to provide quarterly reports with certain operating data, opacity data, startup information, and information related to certain incidents.
when operation of the boiler continued during malfunction or breakdown with excess emissions.

7.7 Emergency Diesel Engine Generator
(To be newly addressed by the revised CAAPP permit pursuant to the Reopening)

The Emergency Diesel Engine Generator is a 1.6 MWe Reciprocating Internal Combustion Engine (RICE) used to produce emergency power to protect the WFGD systems on the coal boilers from damage during loss of station electrical power to these systems. The engine generator has a June 2000 construction date and is fueled with diesel fuel.

The engine is subject to emission standards for NO\textsubscript{x}, CO, SO\textsubscript{2}, VOM and PM. It is also subject to standards for the opacity of emissions.

The engine is an emergency stationary reciprocating internal combustion engine (RICE) meeting the requirements of 40 CFR 63.6590. It is only used for emergency operation, and during maintenance and operational testing. Therefore, it does not have to meet the requirements of 40 CFR 63 Subpart A or Subpart ZZZZ (RICE NESHAP).

The Permittee will be required to perform observations for opacity of the emissions of the engine in accordance with Method 9 at least once every calendar year, unless the engine is not operated during a year.

The Permittee will be required to keep operating and maintenance records for the engine.

The Permittee will be required to promptly report certain exceedances of the opacity standard, and to provide quarterly reports for incidents during the quarter in which operation continued during malfunction or breakdown with excess opacity.

7.8 Gasoline Storage

The Permittee utilizes a small gasoline storage tank at the source for fueling of plant vehicles. The tank must use permanent submerged loading to minimize emissions of volatile organic material from the transfer of gasoline into the tank.

Annual inspections of the tank are required. The Permittee also must keep appropriate records to show compliance with applicable requirements. The Permittee must report significant deviations from the applicable permit requirement, i.e., failure of the submerged loading, within 30 days. The Permittee must report any other deviations with the quarterly reports for the coal-fired boilers.
**Attachment 1 - Other Changes Planned by Minor Modification**

**Introduction**

In parallel with this reopening proceeding and the modifications to the permit to fully approve the CAM Plan, the Illinois EPA is also planning to make certain revisions to the CAAPP permit by minor modification. These changes would be made to remove outdated language, improve language, or correct language. Pursuant to Section 39.5(14)(a) of the Act, the planned changes listed below are all minor modifications. Pursuant to Section 39.5(14)(a)(v) of the Act, the Illinois EPA may not issue a revised CAAPP permit by minor modification until after a 45-day period for USEPA review has passed or USEPA has notified the Illinois EPA that it will not object to the issuance of the revised permit, whichever comes first. However, the Illinois EPA can approve the permit modification prior to that time. Pursuant to Section 39.5(14)(a)(vi) of the Act, the Permittee may make the change proposed in its minor permit modification application immediately after it files such application. After the Permittee makes the changes, and until the Illinois EPA takes final action, the Permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time period, the Permittee need not comply with the existing permit terms and conditions that it seeks to modify. If the Permittee fails to comply with its proposed permit terms and conditions during this period, the relevant existing permit terms and conditions may be enforced. Pursuant to Section 39.5(14)(a)(vii) of the Act, changes that are minor modifications are not covered by any permit shield pursuant to Section 39.5(7)(j) of the Act.

**Designation of “Permittee”**

In various places in the CAAPP permit, the phrase “owner or operator” would be replaced with “Permittee” for permit provisions where an obligation is being imposed on a Permittee. The changes of “owner or operator” to “Permittee” are not individually discussed in the Statement of Basis.

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43 The Act defines “minor permit modification” to mean a permit modification as listed in Section 39.5(14)(a)(i) of the Act. All the planned minor modification changes to the CAAPP permit for this source are not administrative amendments and meet the following criteria:

- Do not violate any applicable requirement;
- Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;
- Do not require a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis;
- Do not seek to establish or change a permit term or condition for which there is no corresponding underlying requirement and which avoids an applicable requirement to which the source would otherwise be subject (i.e., a federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the Clean Air Act; and an alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act);
- Are not modifications under any provision of Title I of the Clean Air Act; and
- Are not required to be processed as a significant modification.
Change in Section 4 of the Permit: Emission Units

Condition 4.0

The emission units in the first column of the table would be updated to conform to changes in other parts of the permit.

Changes in Section 5 of the Permit: Overall Source Conditions

Condition 5.2.2

A reference to the various compliance procedures in Section 7 of the permit would be added.

Condition 5.3

This condition would be updated to for improved clarity.

Changes in Section 7.1: Unit Specific Conditions for the Coal-Fired Boilers

Condition 7.1.1

The sentence stating that the Permittee currently plans to operate the SCR systems for NO\textsubscript{x} control on an as needed basis would be removed from this condition. While the Permittee expects to routinely operate these systems, there are not regulatory requirements pertaining to the use of the SCR systems separate from the applicable emission standards for NO\textsubscript{x}.

Condition 7.1.3(b) and (c)

These conditions would be revised to more clearly identify or cross reference the specific standards related to the Permittee authorizations for continued operations during startup or malfunction/breakdown events. The cross-references in Conditions 7.1.3(b)(iii) and (c)(iii) would be corrected. Also, in Condition 7.1.3(c), the word “requirements” would be changed to “standards” to conform to language used in Condition 7.1.3(b).

Condition 7.1.4(a)

This condition would be revised to improve clarity and to conform to the phrasing used in Conditions 7.1.4(c) through (f).

Condition 7.1.4(b)

The cross-reference to the Acid Rain Program would be moved from Current Condition 7.1.4(e). This condition would also be revised to improve clarity and to conform to the phrasing used in Conditions 7.1.4(c) through (f).

Condition 7.1.4(j)

This condition would be revised to more clearly describe the requirements of 35 IAC 217 Subpart V.
Condition 7.1.5(a)

The origin of authority would be added to this condition. In addition, wording would be changed to clarify that solid fuel refers to coal, and that “other fuels” refers to natural gas or liquid fuel. For improved clarity and consistency, the outage of a coal pulverizer would be added as an example of a temporary interruption in solid fuel supply.

Condition 7.1.5(b)

Edits were made for clarity and to insert a specific regulatory citation.

Condition 7.1.5(h)

The origin of authority would be moved within the sentence for clarity.

Condition 7.1.5(j)

A cross-reference to the state requirement for CO would be added to the non-applicability statement for CAM.

Condition 7.1.6

The phrase “at a minimum” would be removed as there are no other requirements besides those stated in the condition.

Condition 7.1.7(a)(i)

The term “effective date” would be changed to “effectiveness” in this condition. Also, an obsolete reference to testing done after December 21, 2003 was removed.

Condition 7.1.7(a)(v)(C)

“Process wastes” would no longer be mentioned in this condition. This is because the Permittee is not allowed to burn such materials. This will maintain the non-applicability statement for 40 CFR 63 Subpart CCCC, as would be added in Condition 7.1.5.

Condition 7.1.7(c)(i)

This condition would be revised to include a cross-reference to the required time period for submitting a test plan.

Condition 7.1.7(e)(iii)(B), (C) and (D)

Clarifications to the information required during testing would be made to these conditions.

Condition 7.1.8(a)(ii)

This condition would be revised to make it clearer that 35 IAC 212.123, the general opacity standard in Condition 5.2.2(b), applies to the coal boilers.
Condition 7.1.9(a)(i)(B)

This condition would be updated to clarify that some applicable standards are cross-referenced to other sections of the permit.

Condition 7.1.9(a)(iv) and (v)

These conditions would be revised to clarify that “other” fuel refers to alternative fuel and “material” would be changed to “fuel” for clarification.

Condition 7.1.9(b)(ii)

This condition would be revised to clarify which affected boiler is being referenced in connection with which electrostatic precipitator (ESP), and data for sparking rates of the ESPs would be added.

Condition 7.1.9(b)(iii)

The note that the SCR systems are only operated as needed would be removed. This would be done to be consistent with other revisions to the permit addressing the operation of the SCR systems.

Condition 7.1.9(d)

The phrase “as a minimum” would be removed as there are no other records that are required besides those specified in the condition, and other minor revisions would be made to improve clarity.

Condition 7.1.9(d)(i)(A)

The recordkeeping requirements for the continuous opacity monitoring system would be revised to specify that the records for the monitored opacity of the coal-fired boilers must include data for 6-minute, one-hour, and three-hour block averages.

Condition 7.1.9(d)(ii)

This condition would be updated to improve clarity that the source wide opacity standard in Condition 5.2.2(b) is applicable to the affected boilers.

Condition 7.1.9(e)

The phrase “as a minimum” would be removed as there are no other records that are required besides those specified in the condition.

Condition 7.1.9(e)(i)(A)

The records that are required for SO₂ emissions would be clarified.

Condition 7.1.9(f)

The phrase “as a minimum” would be removed as there are no records that are required besides those specified in the condition.
Condition 7.1.9(f)(i)(A)
The records that are required for NOx emissions would be clarified.

Condition 7.1.9(h)(ii)(B)(III)
Clarification on actions taken to prevent future incidents would be added to the condition.

Condition 7.1.9(i)(i) and (ii)
The phrase “as a minimum” would be removed as there are no other records that are being required besides those stated in the condition.

Current Condition 7.1.10-2(a)(iv)(B)
Current Condition 7.1.10-2(a)(iv)(B) would be deleted because the first four quarterly reports have already been submitted so the condition is moot.

Condition 7.1.10-2(b)(i)
The SO2 CEMS “Summary Report” required information would be clarified.

Condition 7.1.10-2(b)(iii)
The term “limitation” would be changed to “applicable standard specified” to improve clarity, and additional clarifying edits would be made to the footnote.

Condition 7.1.10-2(b)(iii)(E)
To clarify the reporting requirement, the phrase “A detailed explanation of corrective actions and actions taken to lessen the emissions” would be changed to “A detailed explanation of any corrective actions taken”.

Condition 7.1.10-2(c)(i)
The NOx CEMS “Summary Report” required information would be clarified.

Condition 7.1.10-2(d)(i) and (ii)
The current CAAPP permit requires the Permittee to submit a report on opacity monitoring system downtime only if the downtime was greater than 5 percent of the total operating time for a coal boiler during a quarter. This is consistent with the NSPS, which served as a model for this reporting obligation. Nonetheless, per Illinois EPAs request and in light of the fact that the affected boilers are not subject to the NSPS, the Permittee has agreed to revise the condition to require the submittal of reports for opacity monitoring system downtime with each quarterly report. The condition would be changed accordingly.

Condition 7.1.10-2(e)
Clarification would be made to NOx reporting requirements for 35 IAC Part 217 Subpart V.
Condition 7.1.11(b) and (c)

In this condition, the term “firing” would be changed to “burning” for clarification. “Process wastes” would no longer be mentioned since the Permittee would not be allowed to burn such materials and maintain the non-applicability to 40 CFR 63 Subpart CCCC, as stated in Condition 7.1.5. Other clarifying edits, including concerning the types of materials classified as alternative fuels, would also be added to the condition.

Condition 7.1.12(a)(i)

A cross-reference to opacity requirements in Condition 5.5.2(b) was added.

Condition 7.1.13(b)(ii)(B)

The language of this condition dealing with responses to excursions would be corrected by adding a phrase from 40 CFR 64.7(d)(2) that is missing from the current condition. The revised condition would provide that the inspections to determine acceptable responses to excursions would extend to the “associated capture system and the process” as well as to the control devices.

Condition 7.1.13(c)

Recordkeeping requirement cross-references would be updated.

Condition 7.1.13(d)

This condition would be revised to clarify the regulatory requirement.

Condition 7.1.13(f)

The language in the condition would be clarified concerning notification to Illinois EPA about necessary monitoring changes in the CAM Plan.

Changes in Sections 7.2, 7.3 and 7.4: Material Handling Equipment

Conditions 7.2.1, 7.3.1 and 7.4.1 - Notes

To avoid possible misunderstanding, notes would be added to these general descriptions of emission units in the permit confirming these descriptions are only for informational purposes and do not establish any requirements or limitations.

Conditions 7.2.3(b), 7.3.3(b) and 7.4.3(b)

These conditions would be revised to more clearly identify or cross reference the specific standards related to the Permittee authorizations for continued operations during malfunction or breakdown events. Condition 7.2.3(b) was also revised for clarity and consistency.

Conditions 7.2.4(a), 7.3.4(a) and 7.4.4(a)

These conditions would be restructured to more clearly indicate that 35 IAC 212.301, the general state standard for fugitive particulate matter emissions...
as addressed in Condition 5.2.2(a), is applicable to the affected operations and processes.

**Conditions 7.2.4(b), 7.3.4(b) and 7.4.4(b)**

These conditions would be restructured to more clearly indicate that 35 IAC 212.123, the general state standard for opacity, as addressed in Condition 5.2.2(b), is applicable to the affected operations and processes.

**Conditions 7.2.6(b)**

This condition would be revised to remove the requirement that compliance with the annual limit must be determined on a running 12 month basis. This is because Construction Permit #01090039, which provides the origin and authority for this condition, did not include such a provision.

**Conditions 7.2.7(a)(i)(C), 7.2.7(a)(v), 7.3.7(a)(i)(C), 7.3.7(a)(v), 7.4.7(a)(i)(C) and 7.4.7(a)(v)**

These conditions would be revised for clarity and consistency.

**Conditions 7.2.9(d), 7.3.9(d) and 7.4.9(d)**

These conditions, which address the recordkeeping required for the periodic inspections of the subject units, would be revised to improve clarity and consistency.

**Conditions 7.2.9(e), 7.3.9(e) and 7.4.9(e)**

These conditions address recordkeeping for incidents when units operated without required control measures and recordkeeping for malfunction or breakdown incidents with excess emissions. These conditions would be revised for clarification and consistency.

**Conditions 7.2.9(g), 7.3.9(g) and 7.4.9(g)**

Clarification to records requirements for Reference Method 9 observations would be made to the conditions.

**Condition 7.2.9(h) and 7.3.9(h)**

These conditions would be revised to clarify that the information in the records required by Conditions 7.2.9(b)(ii) and 7.3.9(b)(ii) is to be used for the determination actual of annual PM emissions of the subject units.

**Conditions 7.2.12(a), (b) and (c), 7.3.12(a), (b) and (c), and 7.4.12(a) and (b)**

These conditions, which very broadly summarize compliance procedures for the subject units by reference to other conditions in the permit, would be revised to address changes in these procedures, as already discussed.
Conditions 7.3.4(c) and 7.4.4(c)

These conditions would be revised to track with 35 IAC 212.321(a) as written. These conditions would also now specifically identify the equipment applicable to 35 IAC 212.321.

Conditions 7.3.7(b)(i)

This condition would be revised to clarify that when emission testing is requested by the Illinois EPA, the 90 day period for the Permittee to complete such testing would begin when the Permittee receives the written request. This period would not begin when the Illinois EPA sends its request to the Permittee.

Conditions 7.3.7(b)(iii) and (v)

To improve clarity and for consistency, these conditions would be revised to simply cross-reference Condition 8.6.2.

Changes in Section 7.3: Unit Specific Conditions for the Coal Processing Equipment

Conditions 7.3.3(a)(ii) and 7.3.4(d)

These conditions would be revised to clarify that the coal crushers are subject to 40 CFR Part 60, Subpart Y, and updates to the description of the regulations would also be added.

Condition 7.3.6(a)

Work Practices would be updated to clarify the dust suppression equipment and control measures used at the source.

Condition 7.3.6(b)

The requirement to demonstrate compliance with annual limits for PM emissions on a rolling monthly basis would be removed. This is because this was not a requirement of Construction Permit 01040033. While this requirement is currently referred to as a “T1” condition, this is not correct.

Conditions 7.3.7(b)(i)

This condition would be revised to clarify that when emission testing is requested by the Illinois EPA, the 90 day period for the Permittee to complete such testing would begin when the Permittee receives the written request. This period would not begin when the Illinois EPA sends its request to the Permittee.

Conditions 7.3.7(b)(iii) and (v)

Conditions 7.3.7(b)(iii) and (v) would be revised to cross-reference Conditions 8.6.2 and 8.6.3, respectively, and eliminate redundancy for improved clarity and consistency.
Conditions 7.6.1 and 7.6.2

The information for the construction date and nominal heating capacity of the auxiliary boiler would be moved from the listing of emission units in Condition 7.6.2 to the description of this boiler in Condition 7.6.1. The description of the boiler would be updated to clarify that it is used to assist as needed with startups of boilers CB-1 and CB-2. To improve clarity, a note would also be added to the general description in Condition 7.6.1 confirming that the description is only for informational purposes and does not establish any requirements or limitations.

Condition 7.6.4 and 7.6.5

For clarity and consistency, a note referencing non-applicability statements in Condition 7.6.5 would be removed. Also, current Condition 7.5.4(a)(i) would be moved and renumbered as Condition 7.6.4(c)(ii).

The current Condition 7.5.5(c) non-applicability statement concerning opacity standards is erroneous and would be removed. As a result, an additional opacity standard would be added to Condition 7.6.4(a)(ii). The additional limit, set forth under state law, is less stringent than the applicable NSPS opacity limit, which will remain in the permit.

Condition 7.6.5(e)

The phrase “utility unit” would be changed to “electric utility unit” for clarity.

Condition 7.6.5(g)

Origin and authority in 40 CFR Part 64 would be specified as “pursuant to 40 CFR 64.2(a)(2)”.  

Condition 7.6.6(a)(i)

Origin and authority from the Act would be specific and reference to the definition of ultra low sulfur liquid fuel in 40 CFR 63.7575 would be included.

Condition 7.6.6(b)(ii)

The statement concerning nitrogen content of residual oil would be removed since the boiler would only be allowed to combust ultra-low-sulfur distillate oil.

Condition 7.6.6(c)(i)

This condition would be revised to clarify that oil means fuel oil and the requirement to maintain fuel receipts would be removed since it is required in other conditions for the boiler for both state and NSPS requirements.

Condition 7.6.7(a)(v)(C)

For clarity and consistency, “e.g.” would be changed to “i.e.”.
Condition 7.6.9(a)

The records required for startups would be clarified and updated with requirements similar to those of the coal boilers in Section 7.1 of the permit.

Condition 7.6.9(b)

Continuous opacity monitoring recordkeeping requirements would be updated to improve clarity.

Condition 7.6.9(e)

For clarity, this condition would be separated into two conditions. Condition 7.6.9(e) would set forth required recordkeeping related to the annual capacity factor of the boiler. Condition 7.6.9(f) would set forth recordkeeping requirements for emissions of SO\(_2\), PM and NO\(_x\).

**Changes in Section 9.0: Standard Permit Conditions**

Condition 9.3

The wording of Condition 9.3 would be changed to match the language in Sections 4(b), 39.5(7)(a), and 39.5(7)(p)(ii) of the Act.

Condition 9.8

The requirement to submit annual compliance certifications to USEPA would be removed since such submissions are no longer required by USEPA.

**Changes in Section 10.0: Attachments**

Condition 10.1 and 10.2

Minor changes to the language in these conditions addressing 35 IAC 212.321 and 212.322 would be made to conform to the exact wording of these rules.
Attachment 2 - Other Changes by Administrative Amendment

Introduction

In parallel with this reopening proceeding and the modifications to the permit to fully approve the CAM Plan, a number of changes to the CAAPP permit by administrative amendment would also occur. Descriptions of these changes, other than changes that will be made to correct errors in grammar or punctuation, are provided below.

Pursuant to Section 39.5(13) of the Act, these changes would all be administrative changes to the permit. Pursuant to Section 39.5(13)(a) of the Act, neither notice nor an opportunity for public and affected State comment is required for the Illinois EPA to make these changes to the permit, provided that these revisions are designated as having been made pursuant to the CAAPP’s procedures for administrative amendments to CAAPP permits. The Permittee may also implement the changes addressed in its request for an administrative amendment of the permit immediately upon submittal of the request. These changes are not covered by any permit shield pursuant to Section 39.5(7)(j) of the Act.

Formatting Changes throughout the Permit:

A header that includes the Section and Subsection of the permit would be added to all pages of the permit. This change would be made for ease of navigation through the permit. The footer would be also modified on all pages of the permit to include the name of the facility, ID number and permit number, as well as the page number. This change would be made to reduce confusion among the CAAPP permits for different facilities.

Word Changes throughout the Permit:

Numerous replacements of the word “log” or “logs” with “record” or “records” would be made throughout the permit for improved clarity and to be consistent with changes made to permits for other coal-fired power plants. These changes will not be discussed individually in the Statement of Basis.

Any condition which referred to use of a USEPA Test Method would be changed to Reference Method for consistency throughout the permit.

The words “testing” and “measurement” would be changed to “observations” in any provision involving or related to the use of Reference Method 9 (Visual Determination of the Opacity of Emissions from Stationary Sources).

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44 Section 39.5(13) of the Act defines “administrative permit amendments” as a permit revision that can accomplish one or more of the changes listed in Section 39.5(13)(c) of the Act. All the planned administrative changes to the CAAPP permit for this source fall into the following categories: Correct typographical errors; identify a change in the name, address, or phone number of any person identified in the permit, or provide a similar minor administrative change at the source; or any other type of change which has been determined to be similar to those above.

Coffeen Power Station,
Statement of Basis for Reopening and Revision, June 2016
ID No. 135823AAA, CAAPP Permit No. 95090009
Conditions using the phrase “within [period of time] of” or a similar variation would be changed to “not later than [period of time] after” throughout the permit.

Changes in Section 1 of the Permit: Introduction

Condition 1.1
Coffeen would be identified as “Illinois Power Generating Company - Coffeen Power Station”, rather than “Illinois Power Generating Company - Coffeen Energy Center”, to reflect the Permittee’s current name for this plant.

Conditions 1.2 and 1.3
The Owner/Parent Company address and Operator contact phone number would be changed to reflect current information provided by the Permittee.

Condition 1.4
Coffeen would be referred to as the “Coffeen Power Station”, rather than the “Coffeen Energy Center”.

Changes in Section 3: Conditions for Insignificant Activities

Condition 3.3.2
The word “and” would be changed to “or”.

Change in Section 4 of the Permit: Emission Units

Condition 4.0
Updates to the table of emission units would be made to conform to changes made elsewhere in the permit.

Changes in Section 5: Overall Source Conditions

Current Condition 5.3
This condition, titled “General Non-Applicability of Regulations of Concern”, would be removed instead of listing “None”.

Current Condition 5.4
This condition, titled “Source-Wide Operational and Production Limits and Work Practices”, would be removed instead of indicating “None”.

Current Condition 5.8
This condition, titled “General Operational Flexibility/Anticipated Operating Scenarios”, would be removed instead of listing “None”.

Coffeen Power Station,
Statement of Basis for Reopening and Revision, June 6, 2016
ID No. 135823AAA, CAAPP Permit No. 95090009
**Changes in Section 6: Conditions for Emission Control Programs**

**Condition 6.1.1**

References to CB-1 and CB-2 boiler designations would be added for clarity.

**Changes in Section 7.1: Unit Specific Conditions for the Coal-Fired Boiler**

**Condition 7.1.4(g)**

Hyphens would be added to the boiler nomenclature to be consistent with the Permittee’s labeling convention.

**Condition 7.1.5(a)(ii)(A)**

The applicable PM standard is incorrectly identified as 0.1 lb/mmBtu, rather than 0.10 lb/mmBtu. The standard would be corrected identified.

**Condition 7.1.6**

The title of this condition would be revised to delete “Operational and Production Limits and Emission Limitations” since there are no such limits or limitations in this condition.

**Changes in Sections 7.2, 7.3 and 7.4: Material Handling and Processing Equipment**

**Conditions 7.2.1, 7.3.1 and 7.4.1**

The description of the emission units would be revised to more clearly identify the presence or absence of dust collection devices.

**Condition 7.2.1 and 7.2.2**

“Coal Storage Bunker” would be replaced with “Coal Storage Silos” for consistency in terminology throughout the Permittee’s power plant operations.

**Condition 7.4.6**

“Operational and Production Limits” would be removed from the title since there are no applicable limits in the condition.

**Condition 7.2.7**

The title would be revised to reflect the addition of emission testing in Condition 7.2.7(b).

**Conditions 7.2.7(a)(ii), 7.3.7(a)(ii) and 7.4.7(a)(ii)**

To improve clarity, the words “both less than” would be replaced with the words “each not greater than”.
Conditions 7.2.9(a), 7.3.9(a) and 7.4.9(a)

These conditions would be revised to eliminate redundant language.

Condition 7.4.11

The term “control measures” would be substituted for “suppressant systems”, or “dust collection equipment”, to improve clarity and consistency.

Changes in Section 7.6: Unit Specific Conditions for the Auxiliary Boiler

Condition 7.6.7(a)

The word “measured” would be moved to correct grammar.

Condition 7.6.8

“Opacity Monitoring Requirements” in the condition title would be changed to “Monitoring Requirements” due to the addition of the NESHAP requirement for boiler tune-ups.

Current Condition 7.5.11

This condition would be removed instead of listing “None”. As a result, the subsequent condition would be renumbered.

Changes in Section 7.8: Unit Specific Conditions for the Gasoline Storage Tank

Current Condition 7.6.7

This condition would be removed instead of listing “N/A” for Emission Testing Requirements.

Changes in Section 9.0: Standard Permit Conditions

Condition 9.4

Addresses for the Illinois EPA would be updated.

Condition 9.7

This condition would be corrected to indicate that Annual Emission Reports should be sent to the Air Quality Planning Section at the Illinois EPA, rather than the Air Compliance Section.