

Statement of Basis

For a Planned Significant Modification of the
Clean Air Act Permit Program (CAAPP) Permit
for:

City of Springfield
Report accompanying the re
Dallman Generating Station

Source ID No.: 167120AAO
Permit No.: 95090091
Date Prepared: May 6, 2013

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

TABLE OF CONTENTS

PREFACE

INTRODUCTION

CHAPTER I - HISTORICAL AND LEGAL BACKGROUND TO THE PLANNED ACTION

- 1.1 Historical Background
- 1.2 Resolution of Permit Appeals using CAAPP Procedures
- 1.3 Three-phased Implementation
- 1.4 The Current Permitting Action
- 1.5 Parallel Permitting Actions
- 1.6 Legal Basis for the CAAPP Program
- 1.7 Legal Basis for Issuance of Revised CAAPP Permit
- 1.8 Legal Basis for Conditions in the CAAPP Permit

CHAPTER II - FACTUAL BASIS FOR THE PLANNED PERMIT ACTION

- 2.1 Description of the Source
- 2.2 Ambient Air Quality Status for the Area
- 2.3 Status of the Source under the CAAPP
- 2.4 Fee Schedule
- 2.5 Construction Permits

CHAPTER III - DESCRIPTION OF THE PLANNED CHANGES TO THE CAAPP PERMIT THAT WOULD BE MADE USING THE PROCEDURES FOR SIGNIFICANT MODIFICATION

- 3.1 Appeal Resolution
- 3.2 Compliance Assurance Monitoring
- 3.3 Reopening

CHAPTER IV - SUPPLEMENTAL INFORMATION

- 4.1 Discussion of Monitoring for Significant Emission Units
 - a. Coal-Fired Boilers
 - b. Coal Handling and Coal Processing
 - c. Ash Handling Process
 - d. Limestone and Gypsum Handling
 - e. Engine Generators
 - f. Gasoline Storage
- 4.2 Discussion of Reporting Required by CAAPP Permits
- 4.3 Discussion of Start-Up and Malfunction/Breakdown
- 4.4 Discussion for Emissions of Greenhouse Gas

ATTACHMENTS

- Attachment 1: Planned Changes by Administrative Amendment
- Attachment 2: Planed Revisions to the Permit by Minor Modification

PREFACE

The purpose of this Statement of Basis is to discuss the development and legal basis for the planned significant modification of the Clean Air Act Permit Program (CAAPP)¹ permit for the Dallman Generating Station. The Dallman Generating Station is a coal-fired power plant located in Springfield, Illinois that is operated by the City of Springfield by its utility department, City Water, Light & Power (CWLP). This planned action would make certain revisions to the CAAPP permit for this source. These revisions arise from the settlement of the permit appeal currently pending before the Illinois Pollution Control Board for the CAAPP permit that was initially issued by the Illinois EPA for this source.

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 significant modification of the CAAPP permit for the Dallman Station that is planned by the Illinois EPA.

This Statement of Basis is only explanatory in nature. It is not enforceable as either policy or guidance. The Statement of Basis also does not shield the source 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 or implementing regulations thereunder.

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 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. Title V permits are a means of assembling and setting forth the various air pollution control requirements established under the Clean Air 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 initial CAAPP permit for the Dallman Station was issued by the Illinois EPA in September 2005. The permit addressed the applicable emission standards and requirements existing at the time the permit was issued. In a subsequent permit appeal to the Illinois Pollution Control Board, City Water, Light and Power (CWLP) challenged the applicability of certain legal requirements and the imposition of certain requirements for monitoring in the CAAPP permit. In the years since the filing of the appeal, the issued permit has been stayed in its entirety. The presence of the stay, which was a consequence of the Illinois' administrative review process, has prevented the issued permit from becoming effective. In addition, the stay has acted to prevent the renewal and revision of the CAAPP permit for the Dallman Station, which would have enabled the CAAPP permit for this source to appropriately address new rules and other relevant developments. The initial steps to advancing the development of an appropriate CAAPP permit for this source is to provide for the effectiveness of a CAAPP permit and the resolution of the permit appeal. The CAAPP permit for the source can and must then be brought up-to-date by the Illinois EPA through permit reopening and, as needed, additional permit revisions.

This Statement of Basis supports a significant modification of the CAAPP permit for the Dallman Station planned by the Illinois EPA that would make certain revisions to the CAAPP permit initially issued for this source that arise from the settlement of the permit appeal currently pending before the Illinois Pollution Control Board. Chapter I of this Statement of Basis provides historical background to the planned permitting action. It also discusses the legal framework for resolving permit appeals in Illinois, including the typical means for resolving permit appeals and the selected means of resolving CWLP's appeal using the permit modification procedures under the CAAPP. In addition, other permitting actions that will occur as part of the settlement of the appeal are discussed. Chapter II provides the factual basis for the planned permit action. Chapter III provides a narrative discussion for the specific changes that are planned to the CAAPP permit in this permitting action, which would be made using the procedures for significant modification of CAAPP permits. Chapter IV provides supplemental information, including general discussions of the factual basis for the CAAPP permit that was initially issued to the source and background information relative to CAAPP permits.

CHAPTER I - HISTORICAL AND LEGAL BACKGROUND TO THE PLANNED ACTION

1.1 Historical Background

The City of Springfield owns and operates a coal-fired power plant for the generation of electricity known as the Dallman Generating Station, located at 3100 Stevenson Drive in Springfield. In addition to coal-fired boilers, this station has ancillary equipment and operations, including coal handling, coal processing, fly ash and limestone handling equipment, diesel engines and gasoline storage.

The City of Springfield's utility department, City Water, Light and Power (CWLP), operates the Dallman Station. CWLP filed an application with the Illinois EPA on September 7, 1995 for a CAAPP Permit for the station. The application was assigned Application No. 95090091.³ Following a public comment period that included a public hearing, opportunity for supplemental comments from the public and review of proposed CAAPP permits by USEPA, the Illinois EPA issued a CAAPP permit for this source on September 29, 2005.⁴

On November 3, 2005, CWLP petitioned Illinois' Pollution Control Board (Board) for review of the CAAPP permit issued by the Illinois EPA for the Dallman Station. In particular, CWLP challenged the inclusion of certain specific terms and conditions in this permit, as identified in the petition. CWLP 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. CWLP 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 CWLP's appeal petition and on February 16, 2006, the Board granted an administrative stay of the issued CAAPP permit in its entirety.

The Illinois EPA and CWLP have been working to settle the appeal of the CAAPP permit. On May 3, 2013 the Illinois EPA and CWLP jointly filed a motion with the Pollution Control Board requesting that the administrative stay of the CAAPP permit be lifted for the "uncontested" conditions of the permit, while the remaining conditions contested in the appeal remain stayed. The motion also included a request for remand of the issued CAAPP permit to the Illinois EPA so that the permit could be dated to reflect the lifting of the stay and a full five-year term of duration, as required under the CAAPP. On May 16, 2013, the Board issued an order granting the relief sought by the parties. At this time, the Board's stay remains in place for the contested conditions of the CAAPP permit.

1.2 Resolution of Permit Appeal using CAAPP Procedures for Permit Revisions

As previously discussed, the planned permitting action would make certain revisions to the CAAPP permit arising from the resolution of CWLP's administrative permit appeal. Although the appeal and the resulting stay of the CAAPP permit remain pending, the Illinois EPA and CWLP have recently concluded negotiations that will resolve the various appeal points. Under the framework of the Environmental Protection Act, administrative appeals are typically

³ The Source Identification (ID) Number historically assigned to CWLP by the Illinois EPA is 167120AAO.

⁴ The expiration date specified on the face of the CAAPP permit was September 29, 2010, providing the permit with a five-year term required by the CAAPP.

resolved through negotiated settlements, with revised permits being issued by the Illinois EPA that memorialize the outcome of the negotiated settlement process. While it is possible for permit appeals to be resolved through actual litigation before the Board, with the possibility of subsequent review at the appellate court level thereafter, it is unusual for permit appeals to be resolved in this manner for a variety of reasons. In practice, resolution of permit appeals by litigation is an infrequent occurrence, except when the Illinois EPA and the permit applicant cannot come to a negotiated settlement.

Under the CAAPP, there are two approaches that the Illinois EPA could pursue to affect a resolution of the pending appeal of the CAAPP permit for CWLP. The first approach would involve complete reissuance of an initial CAAPP permit for this source, based on a new permit application from CWLP. The second approach, rather than starting the permitting process anew, would address the various contested conditions in the issued CAAPP permit using the established procedures under the CAAPP for revision of permits.

The administrative review process for appeal of CAAPP permits is subject to established legal principles and precedents in Illinois relating to both environmental permitting and administrative law. Key among these principles is that the Illinois EPA cannot unilaterally reconsider its permit decisions. When a permit action has been appealed to the Pollution Control Board, the Board acts as the final decision-maker in adjudicating the appeal of the permit issued by the Illinois EPA. The Illinois EPA cannot, on its own initiative, act to resolve a permit appeal. Thus, when permit appeals are resolved through settlement, such settlements are made possible because the sources authorize the Illinois EPA to act anew in revised permits.

In this instance, the first approach, reissuance of an initial CAAPP permit, is not feasible, because some of the utilities have declined to allow the Illinois EPA to act on an application for reissuance of an initial CAAPP permit. Moreover, reissuance of the initial permit would also require a comprehensive permit review and accompanying public comment period and USEPA review concerning the same. For the uncontested conditions in the issued permit, the mechanics of this process would necessitate a second review and a repetition of the procedures used for the initial issuance of the CAAPP permit. In view of such scope, a reissuance of an initial CAAPP permit would result in redundancy for a large component of the permit, both in terms of its substantive review and process.

It is also significant that this approach would further delay the effectiveness of a CAAPP permit for the Dallman Station and the resolution of the appeal. Both the petition for appeal and administrative stay would likely remain in place until the completion of permit reissuance. When the number of appealed CAAPP permits for coal-fired power plants in Illinois is considered, the reissuance of CAAPP permits for all of these plants would almost certainly extend the current *status quo* for these plants for many years to come.

The second approach to the resolution of the appeal of the CAAPP permit for the Dallman Station, which the Illinois EPA has opted to pursue, involves making revisions to the issued CAAPP permit to achieve a settlement of the appeal. The contested conditions in the issued CAAPP permit will thus be addressed using the various procedures under the CAAPP for revisions of permits, rather than starting permitting anew. As already discussed, the initial step in this approach involves having the uncontested conditions of the issued CAAPP permit, comprising the greater part of the permit, take effect. Then, the issued CAAPP permit will be up-dated using the various procedures of the CAAPP for revisions

to permits, beginning with the conditions contested in the appeal, and then later, with a permit reopening to address additional Clean Air Act rules and requirements that have become applicable to the source since 2005. Although this approach involves three discrete phases, this approach avoids the difficulties of permit reissuance, maintaining continuity with the CAAPP permit that was initially issued and the underlying permit application. More significantly, the Dallman Station will become subject to an effective CAAPP permit much more quickly.

1.3 Three-phased Implementation

As related to the Clean Air Act Permit Program (CAAPP), as discussed above, the overall goal is to have the Dallman Station addressed by and subject to an appropriate CAAPP permit. The first step to achieving this goal was to have the scope of the Pollution Control Board's administrative stay modified so that the uncontested conditions of the issued CAAPP permit become effective. As previously mentioned, on May 16, the Board recently issued an order lifting the stay of the uncontested conditions of the issued CAAPP permit. As a result of the Board's order, the initial CAAPP permit took effect on May 16, 2013, beginning the five-year term of the permit. The source therefore now possesses and is subject to an effective initial CAAPP permit. This has opened the way for subsequent revisions of the CAAPP permit for the Dallman Station.

However, the administrative stay currently is still in place for the contested conditions of the CAAPP permit. The next step to having this source subject to an appropriate CAAPP permit is to resolve the points of contention raised in the permit appeal. This requires that the conditions that CWLP challenged in its petition before the Board be addressed. This can be accomplished using the CAAPP's procedures, as applicable, for administrative amendments, minor modifications and significant modification of CAAPP permits to appropriately revise the contested conditions of the issued CAAPP permit consistent with the terms of the parties' settlement. As already discussed, this Statement of Basis supports the planned permitting action for certain contested conditions of the CAAPP permit that would be accomplished using the significant modification procedures of the CAAPP.

Overlapping with permitting revisions arising from settlement of the appeal, the Illinois EPA will initiate a formal reopening of the CAAPP permit under the CAAPP's procedures for reopening. This third step will add additional requirements to the CAAPP permit, i.e., requirements under the Clean Air Act that have become applicable to the source since the original permit issuance in 2005, as authorized by Section 39.5(15)(a)(i) of the Act. At this time, the following regulatory requirements have been identified as needing to be added to the CAAPP permit in the reopening proceeding: the Mercury and Air Toxics Standards (77 FR 9304-9513, February 16, 2012); the Clean Air Interstate Rule (70 FR 25162-25405, May 12, 2005); Boiler MACT (78 FR 7138-7212, January 31, 2013); RICE Standards (78 FR 6674-6724, January 30, 2013). The conditions of new construction permits issued under Title I of the Clean Air Act will also be addressed in the reopening proceeding. The Illinois EPA intends to begin the formal process of permit reopening within a few days of issuance of this draft significant modification by providing CWLP notice of the planned reopening of the CAAPP permit, in accordance with Section 39.5(15)(d) of the Act.

1.4 The Current Permitting Action

Settlement negotiations have recently produced a final agreement as to the numerous appeal points that presently form the basis for revisions to the CAAPP

permit. For this reason, the Illinois EPA is now proceeding with public notice of this draft permit, which reflects those changes to the CAAPP permit from the settlement that are being implemented through the procedures for significant modification. The timing of this action also reflects a commitment by the Illinois EPA to seek a resolution of the pending CAAPP appeals in general and, with respect to the Dallman Station, to avoid an objection to the CAAPP permit or other possible administrative action by USEPA.

The permit revisions addressed by this permitting action, as described in detail in Chapter III below, are those deemed to warrant processing as significant modifications under Section 39.5(14)(c) of the Act. These revisions would primarily involve the applicability of certain legal requirements and reasonable changes to requirements for periodic monitoring. As provided by the Act, the CAAPP's procedures for significant modification must be used "for applications requesting significant modifications and for those applications that do not qualify as either minor modifications or as administrative permit amendments". As relevant here, a permit modification that would entail a "significant change in existing monitoring" or a "relaxation of reporting or recordkeeping requirements" is considered "significant". Sections 39.5(14)(c)(i) and (ii) of the Act.⁵

In addition to appeal resolution, and as a consequence of implementing a significant modification to the CAAPP permit, the Illinois EPA is addressing the federal rule for Compliance Assurance Monitoring (CAM), 40 CFR Part 64. In this instance, the CAM rule is not being triggered as a result of CAAPP's procedures for permit revision but, rather, by an independent requirement of the CAM rule, CFR 64.5(a)(2), as it provides that CAM becomes applicable when a large pollutant-specific emission unit would be the subject of a significant permit modification. As CAM would now become applicable for the existing coal-fired boilers at the Dallman Station for emissions of particulate matter (PM), CWLP has submitted a CAM plan to the Illinois EPA for those units. In the current permitting action, the Illinois EPA is proposing to approve this CAM Plan. (See Section 3.2 of this document for a further discussion of CAM.)

The Illinois EPA also plans to add a condition to the revised CAAPP permit in the current permitting action to address the informational requirements related to the subsequent reopening of this permit that is planned. A concern was expressed by the USEPA in a similar CAAPP permit appeal that the Illinois EPA's intent to invoke the reopening procedures of the CAAPP lacks a sufficiently enforceable commitment.⁶ To avoid either a permit objection or other possible administrative action by USEPA in this matter, the CAAPP permit will now require CWLP to submit information identifying the additional Clean Air Act requirements that have become applicable to the Dallman Station, as well as information relating to any such requirement for which the source does not currently comply.

⁵ Settlement negotiations between the Illinois EPA and CWLP initially focused on achieving settlement of the appeal based on permit revisions made solely through the procedures for administrative amendment and minor modification. However, the Illinois EPA, in close consultation with USEPA, subsequently determined that a number of issues raised in the appeal, affecting a larger number of conditions or parts thereof, appear to constitute significant changes and/or a relaxation of certain reporting or recordkeeping requirements. For this reason, the Illinois EPA has deemed it appropriate to require the affected revisions to be made using the CAAPP's procedures for significant modification of permits.

⁶ In fact, the Illinois EPA considers the reopening provision to constitute an unambiguous statutory duty on the part of the Illinois EPA that is fully enforceable under the CAAPP.

As a planned significant modification to a CAAPP permit, this planned permitting action is subject to requirements for public participation and 45-day review by USEPA in accordance with Sections 39.5(8)(a) and (9) of the Act. The comment period on this draft Significant Modification of the CAAPP permit will begin on May 25, 2013. The comment period will close on August 8, 2013, unless a later date is provided for by the Illinois EPA's hearing officer. For this permitting action, which is the second in line of pending CAAPP appeals for coal-fired power plants to be addressed through negotiated settlement leading to permit revisions, the Illinois EPA has elected to hold a public hearing. The hearing will be held on July 9, 2013.

It is Illinois EPA's preliminary determination that the planned permit action meets the standards for issuance of a "Significant Modification" of a CAAPP permit as set forth in Section 39.5(10)(a) of the Act (see Section 1.7 of this document). The Illinois EPA has therefore initiated the process for a Significant Modification of the CAAPP Permit.

The Illinois EPA has prepared a Draft Significant Modification of the CAAPP permit and this Statement of Basis.⁷ The draft permit is accompanied by a "tracked changes" or redlined version of the permit reflecting the negotiated changes to the original text of the initial CAAPP permit. It should be noted that the both the draft and redlined versions of the permit also contain changes to provisions that are unrelated to the significant modification changes that are the subject of this planned permit action. The additional text in these documents represents the other changes to the CAAPP permit that would be made by administrative amendment and minor modification in parallel permitting actions, as discussed below. The form of these documents allows interested persons to view the cumulative changes to the CAAPP permit resulting from the negotiated settlement of the permit appeal. In this regard, the form of the documents is an outgrowth of negotiations that addressed revisions to the permit in relation to the appeal, rather than the procedures that would be eventually be used in making the revisions. The presentation avoids the administrative difficulties associated with creating discrete text for the separate permitting actions.

1.5 Parallel Permitting Actions

In addition to this permitting action for a significant modification of the CAAPP permit, the Illinois EPA is planning, in the near future, to implement certain negotiated revisions to the initial CAAPP permit through the procedures for administrative amendment. Specifically, the changes that are being addressed through these procedures involve typographical corrections, minor administrative changes and/or more frequent monitoring or reporting, as authorized by Section 39.5(13)(c)(i), (ii) and (iii) of the Act, respectively. 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 an ancillary document to this Statement of Basis. (Attachment 1). The CAAPP does not provide for public participation on planned administrative

⁷ The draft Significant Modification of the CAAPP permit and this Statement of Basis have been posted on and are available at USEPA's website: <http://www.epa.gov/reg5oair/permits/ilonline.html>

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.

In the near future, the Illinois EPA will also proceed with certain negotiated revisions to the initial CAAPP permit through the CAAPP's procedures for minor modification of permits. The revisions that will be addressed using these procedures 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 an ancillary document to this Statement of Basis. (Attachment 2). 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.

1.6 Legal Basis for the CAAPP Program

The statutory authority for Illinois's state operating permit program for sources of emissions established to meet the requirements of Title V of the federal Clean Air Act and 40 CFR Part 70 is found at Section 39.5 of the Environmental Protection Act (Act) [415 ILCS 5/39.5]. The program is called the Clean Air Act Permitting Program (CAAPP). The CAAPP was given final full approval by USEPA on December 4, 2001 (see 66 FR 62946).

1.7 Legal Basis for Issuance of Revised CAAPP Permit

In accordance with Section 39.5(10)(a) of the Act, the Illinois EPA has a statutory duty to issue a CAAPP permit, including a significant modification of a CAAPP permit, if all of the following standards for issuance have been met:

- The applicant has submitted a complete and certified application for a permit, permit modification, or permit renewal consistent with Sections 39.5(5) and (14) of the Act, as applicable, and applicable regulations;
- The applicant has submitted with its complete application an approvable compliance plan, including a schedule for achieving compliance, consistent with Section 39.5(5) of the Act and applicable regulations;
- The applicant has timely paid the fees required pursuant to Section 39.5(18) of the Act and applicable regulations; and
- The applicant has provided any additional information as requested by the Illinois EPA.

These standards have been met. CWLP has submitted an appropriate application for a revised CAAPP permit, which includes the necessary certification for its truth and accuracy. CWLP submitted an approvable Compliance Plan as part of its initial permit application, in which it certified compliance with all applicable regulations. In addition, the issued CAAPP permit requires CWLP to certify as to the source's compliance status on an annual basis.⁸ CWLP is

⁸ Because the initial CAAPP permit was stayed, CWLP has not been required to submit reports, including annual compliance certifications, under the CAAPP. As a portion of

current on payment of all fees under the CAAPP for the Dallman Station. As part of the processing of the subject application, the Illinois EPA has not requested any additional information from CWLP.

1.8 Legal Basis for Conditions in the CAAPP Permit

This source, i.e., the Dallman Generating Station, 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 preconstruction permits issued for new or modified emission units at a source.⁹ The CAAPP itself provides 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 preconstruction permit are also identified.¹⁰

the initial CAAPP permit is now in effect, with the lifting of the stay for uncontested provisions of the permit, CWLP must begin submitting reports required by the CAAPP. In this regard, the first quarterly report required by the CAAPP that CWLP will provide for the source will address operation during the second quarter of 2013.

⁹ Preconstruction permits, commonly referred to in Illinois as construction permits, derive from the New Source Review (NSR) permit programs required by Title I of the CAA. These NSR programs include the federal rules for Prevention of Significant Deterioration of Air Quality (PSD), 40 CFR 52.21, which the Illinois EPA administers for major projects in Illinois pursuant to a delegation agreement with USEPA. In areas that are or have been nonattainment, NSR also includes the state nonattainment NSR program, pursuant to state rules, Major Stationary Sources Construction and Modification (MSSCM), 35 IAC Part 203, which have been approved by USEPA as part of the State Implementation Plan for Illinois. The NSR program also encompasses state construction permit programs for projects that are not major.

¹⁰ In CAAPP permits, the Illinois EPA's practice is to identify requirements that are carried over from an earlier Title I permit into a new or renewed CAAPP Permit as "TI" conditions (i.e., Title I conditions). Title I Conditions that are revised as part of their incorporation into a CAAPP Permit are further designated as "TIR". Title I Conditions that are newly established through a CAAPP Permit are designated as "TIN". It is important that Title I Conditions be identified in a CAAPP Permit because these conditions will not expire when the CAAPP Permit expires. Because the underlying authority for Title I Conditions comes from Title I of the CAA and their initial establishment in Title I Permits, the effectiveness of T1 Conditions derives from Title I of the CAA rather than being linked to Title V of the Act.

CHAPTER II - FACTUAL BASIS FOR THE PLANNED PERMIT ACTION

2.1 Description of the Source

At this source, i.e., the Dallman Generating Station, the City of Springfield, CWLP, operates coal-fired boilers to generate electrical power. The source is located in Springfield, Illinois. The area in which the source is located has not been identified as posing a potential concern for consideration of Environmental Justice.

SIC Code: 4911
 County: Sangamon

The CAAPP permit for this source currently addresses the following emission units and operations.¹¹

Emission Unit(s)	Description
Operational Emission Units	
Dallman Boiler 1 BLR 31	Babcock and Wilcox Boiler Nominal 882 mmBtu/hr (1968)
Dallman Boiler 2 BLR 32	Babcock and Wilcox Boiler Nominal 882 mmBtu/hr (1972)
Dallman Boiler 3 BLR 33	Combustion Engineering Boiler Nominal 2,120 mmBtu/hr (1975)
Coal Handling Equipment	Coal Receiving, Transfer and Storage Operations
Coal Crushing 1CR2	Coal Crushing Operation
Limestone and Gypsum Handling Equipment	Receiving, Transfer, Storage, and Loadout Operation
Engine 1 ENG1	Distillate Oil Fired Engine Generator
Engine 2 ENG2	Distillate Oil Fired Engine Generator
Engine 3 ENG3	Distillate Oil Fired Engine Generator
Tank T1	Gasoline Storage Tank
Emission Units That Are Now Retired	
Lakeside Boiler 7 BLR 7	Babcock and Wilcox Boiler Nominal 415 mmBtu/hr
Lakeside Boiler 8 BLR 8	Babcock and Wilcox Boiler Nominal 415 mmBtu/hr
Fly Ash Equipment	Transfer System, Silo, and Loadout Operation

2.2 Ambient Air Quality Status for the Area

The source is located in an area that is currently designated attainment or unclassifiable for the National Ambient Air Quality Standards for all criteria pollutants, including PM_{2.5}, PM₁₀, nitrogen dioxide (NO₂), sulfur dioxide (SO₂),

¹¹ The initial CAAPP permit does not address a new coal-fired boiler at the station, Dallman Boiler 4, and its associated ancillary operations. This new boiler, also known as Boiler 34, will be addressed as part of the reopening of this permit.

carbon monoxide (CO), ozone and lead. (See 40 CFR Part 81, Designation of Areas for Air Quality Planning Purposes.)

2.3 Status of the Source under the CAAPP

The source requires a CAAPP permit because it is considered a major source for emissions of the following regulated pollutants: particulate matter (PM), nitrogen oxides (NO_x), volatile organic material (VOM), CO, SO₂ and hazardous air pollutants (HAP).^{12, 13}

The source also requires a CAAPP Permit as an "affected source" for the purposes of Acid Deposition Control, Title IV of the Clean Air Act, pursuant to 40 CFR 70.3(a)(4).

2.4 Fee Schedule

A schedule limiting the source's annual emissions is not included in the permit for the purpose of fees under the CAAPP. For this source, CWLP currently pays the maximum annual fee for a source under the CAAPP.

2.5 Construction Permits

The initial CAAPP issued for the source included conditions that originated in the following construction permits:

Permit No.	Date Issued	Subject
99030076	August 13, 2001	Flue Gas Desulfurization System (Boilers 31 and 32)

¹² This source is also recognized as being a major source for emissions of greenhouse gases (GHG), with potential emissions of GHG are more than 100 tons per year, by mass, and 100,000 tons per year, as carbon dioxide equivalents (CO₂e). CWLP has voluntarily submitted data for actual emissions of GHGs from this source in its Annual Emission Reports (AER), which data confirms that the source is a major source for GHG emissions. However, this source 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. This permit does not relieve CWLP from the legal obligation to comply with the relevant provisions of the Mandatory Reporting Rule for this source.

¹³ The source's actual annual emissions of regulated pollutants, in tons, as reported by CWLP in its Annual Emission Reports (AER) sent to the Illinois EPA, are provided below:

Pollutant	2012	2011	2010
CO	225.7	254.1	420.3
NO _x	773.6	1,037.02	1437.8
PM	561.3	644.2	248.6
SO ₂	1,103.7	2,975.1	3,310.5
VOM	25.5	32.9	39.8
CO ₂	2,418,429	2,808,044	3,236,719
Mercury (HAP)	0.018	0.028	0.011

Permit No.	Date Issued	Subject
01070019	December 17, 2001	Diesel Generators for Auxiliary Power
01090010	December 4, 2001	Selective Catalytic Reduction Systems (Boilers 31, 32, and 33)

CHAPTER III - PLANNED CHANGES TO THE CAAPP PERMIT THAT WOULD BE MADE USING THE PROCEDURES FOR SIGNIFICANT MODIFICATIONS

3.1 Appeal Resolution

Introduction

In the planned permit action, the changes addressed below would be made using the CAAPP procedures for significant modification of permits, pursuant to Section 39.5(14)(c) of the Act. As previously discussed, every significant change in existing monitoring permit terms or conditions and every relaxation of reporting or recordkeeping requirements shall be considered significant. Pursuant to 39.5(14)(c)(iii) of the Act, significant permit modifications must meet all the requirements of public participation, review by affected States, and review by USEPA applicable to initial permit issuance and permit renewal.

Conditions 5.6.1 and 5.7.2

Condition 5.6.1 of the initial CAAPP permit would have required CWLP to maintain the records that are necessary for it to prepare its Annual Emission Reports (AER). Pursuant to 35 IAC 254.203(b), AERs, among other things, must include "[s]ource-wide totals of actual emissions for all regulated air pollutants emitted by the source."

In addition, the initial permit would have explicitly required CWLP to maintain records of emissions of three pollutants, mercury (Hg), hydrogen chloride (HCl) and hydrogen fluoride (HF). The Illinois EPA included this requirement, in large part, because of public interest in emissions of these pollutants. In its appeal to the Board, CWLP challenged the authority of the permit to require such recordkeeping. At the time the initial permit was issued, emissions of Hg, HCl, and HF from the coal-fired boilers at the Dallman Station were not yet regulated by any federal or state regulations. The appeal thus questioned the ability of the permit to impose recordkeeping requirements for which no underlying statutory or regulatory requirement existed at the time the permit was issued.

The explicit requirements for recordkeeping for emissions of Hg, HCl and HF have been removed from the permit. This is because these pollutants did not meet the relevant definition of "regulated pollutants" for purposes of AERs, in 35 IAC 254.120, when the initial permit was issued. It should be noted that recordkeeping for emissions of Hg and HCl is now required by the general language of Condition 5.6.1. This is because both Hg and HCl are now "regulated pollutants" for purposes of AERs. Because CWLP is now required to maintain records for emissions of HCl, the removal of HF from Condition 5.6.1 is of minor significance because HCl serves as a surrogate for HF.

Conditions 7.1.6(a) and 7.2.6(a)

These conditions of the initial permit required CWLP to perform combustion evaluations on the boilers on a quarterly basis. These evaluations measure the carbon monoxide (CO) concentrations in the flue gas of the boilers and are required to address compliance with the state CO standard, 35 IAC 216.121. Among other things, this condition required a formalized procedure for obtaining "diagnostic" measurements, as well as "adjustments and preventative and corrective measures" of the boilers to ensure proper combustion.

CWLP appealed the condition because the requirement for combustion evaluation appeared to require formalized emissions testing and that its ability to make "adjustments or other preventative and corrective measures" was limited by the bounds of technical feasibility. In resulting settlement negotiations, the Illinois EPA acknowledged that the original intent of the permit condition was not to require formal diagnostic testing, which is an engineering evaluation of systems to gather data beyond the standard operational measurements. Rather, the intent was to obtain quantitative information from the standard operational measurements on a continuous or periodic basis and thus serve as a gauge for how the combustion processes are functioning. The permit has been revised to clarify this aspect of the combustion evaluation.

The permit has also been revised to clarify that "adjustments or other preventative measures" are not a compulsory requirement for each combustion evaluation. The original intent was to ensure that adjustments or other corrective measures would occur if, depending upon the findings of a given evaluation, such changes are needed to restore combustion efficiency. The revised permit now eliminates the ambiguity of the earlier condition by providing that combustion evaluations include any "adjustments and preventative and corrective measures" undertaken to maintain combustion efficiency. CWLP is still required, consistent with the existing recordkeeping requirements of the CAAPP permit, to maintain records of the adjustments and preventative and corrective measures resulting from the combustion evaluation.

Consistent with the above discussion, the revised permit requires combustion evaluations for the boilers to be conducted semi-annually. The evaluations will still provide all the quantitative information needed and will be consistent with other, similar types of reporting situations where semi-annual reporting is typical.

Conditions 7.1.7(b)(iii) and 7.2.7(b)(iii)

In the initial permit, these conditions include requirements for testing emissions of condensable particulate¹⁴ from the coal-fired boilers. These requirements were included in the permit primarily as a response to public comments regarding the air quality and health-related impacts of particulate emissions. CWLP challenged these requirements on appeal. It argued that they had no basis in law, questioning the authority of the CAAPP permit to require testing for condensable particulate when no underlying requirement existed in any applicable statutory or regulatory provision at the time of permit issuance.

The requirements for measurement of emissions of condensable particulate have been removed from these conditions. This is because the underlying regulations did not provide support for such testing and it was beyond the scope of the Illinois EPA's express or implied permitting authority.

¹⁴ Filterable particulate exists as a solid or liquid material at elevated temperature in the stack, while condensable particulate is a vapor or gas in the stack and condenses into a liquid or solid in the atmosphere after exiting the stack and cooling to ambient conditions. Method 202 is USEPA's reference test method for measuring condensable PM.

Emissions testing for condensable particulate was not (and still is not) needed to confirm compliance with applicable emission standards for particulate, since current standards only address emissions of filterable particulate.

Conditions 7.1.9(c)(ii) & (iii)(B) and 7.2.9(c)(ii) & (iii)(B)

These conditions in the initial CAAPP permit contained recordkeeping requirements related to the Continuous Opacity Monitoring Systems (COMS) on the coal-fired boilers. As part of the Periodic Monitoring for the boilers, the initial CAAPP permit relied upon a correlation between opacity and PM emissions to address compliance with applicable PM standard(s). Since the boilers will be subject to Compliance Assurance Monitoring (CAM) for PM emissions with this significant modification, these conditions in the initial permit are no longer needed. This is because the revised CAAPP permit would require CWLP to conduct monitoring for the boilers in accordance with a CAM Plan for PM emissions. CWLP's proposed CAM Plan is discussed in Section 3.2 of this Statement of Basis.

By way of further explanation, the initial CAAPP permit, like the revised permit, would provide that opacity above a specified value would indicate potential noncompliance with applicable PM standard(s) by a boiler.¹⁵ However, the initial permit included certain related recordkeeping, as addressed in these conditions. Among other things, these conditions provided that CWLP was to develop this specified value for opacity based on the results of emissions testing, with a numerical value for opacity set at the "upper bound of the 95 percent confidence interval" for compliance with the applicable PM standard(s). CWLP appealed the initial permit on the grounds that this requirement imposed an "unreasonable burden" and would not generate information that could be used in conjunction with other actions to address compliance with the PM standard(s). Settlement discussions confirmed the difficulties in these conditions as present in the initial permit. Among other things, they required the correlation between opacity and PM emissions to meet a statistical criterion as related to the confidence interval. This criterion would not necessarily be able to be met given the nature of the correlation between opacity and PM emissions and the data that would be available from emissions testing to develop the correlation. These conditions of the initial permit and this element of CWLP's appeal would now cease be relevant as the revised CAAPP permit would require CAM monitoring for PM emissions.

Conditions 7.1.9(f)(i) & 7.2.9(f)(i) and Conditions 7.1.10-2(a)(i)(D) & 7.2.10-2(a)(i)(D)

These conditions deal with recordkeeping and reporting associated with the startup of the coal-fired boilers. The initial CAAPP Permit required that CWLP 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 permit also required more detailed recordkeeping for any startup that lasted longer than six hours. CWLP appealed this latter part of the conditions because typical startups of these boilers actually take longer than 16 hours. Accordingly, the initial permit inappropriately required additional recordkeeping and explanation for startups that take longer than six hours.

The intent of these conditions was to require additional documentation and explanation for boiler startups that are out of the ordinary. 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. The revised conditions use longer durations for normal boiler startups, 18.5 hours for Boilers 31 and 32 and 18.0 hours for Boiler 33, before

¹⁵ Upon occurrence of such opacity excursions, both permits would also require CWLP to investigate and undertake corrective actions if necessary to assure compliance.

more detailed recordkeeping is needed because of the duration of a startup. This reflects information provided by CWLP during the settlement discussions showing that typical startups of these boilers can last as long as 18.5 or 18 hours.

Based on the information now provided by CWLP, the information for and assumptions about the duration of typical startup of these boilers, which were the basis of the initial permit, were incorrect. Depending on the boiler, startups up to 18.5 or 18.0 hours in duration should be considered typical for these boilers, given their design. This change addressed these errors in the development of the initial permit while still requiring CWLP to maintain additional records and reporting for atypical startups.

Conditions 7.1.9(f)(ii) & 7.2.9(f)(ii) and Conditions 7.1.9(g)(ii)(D)(III) & 7.2.9(g)(ii)(D)(III)

These conditions in the initial CAAPP permit relate to startups and malfunction/breakdown of the coal-fired boilers. For such periods, the conditions required CWLP to provide "an estimate of the magnitude of emissions of PM and CO" as emissions may have exceeded an applicable standard.¹⁶ The use of the term "may" in these conditions was intentional. It recognized that for startup and periods of malfunction/breakdown, it will not be possible to make exact determinations of the actual emissions. Because exact determinations would not be possible, qualitative evaluations of the rates of actual emissions were required compared to the allowable emissions.

Changes were made to the conditions so that they now require more than just a description of the level of actual PM and CO emissions, but also a perspective regarding those emissions. These conditions now require CWLP to provide additional discussion in order to make the information for "estimated" emissions more meaningful.

Conditions 7.1.10-2(a)(i)(E) and 7.2.10-2(a)(i)(E)

These conditions set forth reporting requirements for the coal-fired boilers that are part of the approach taken in the initial CAAPP permit to using opacity to address compliance with the applicable PM standards. As already discussed, the recordkeeping with that approach has been replaced with the relevant records required by CAM. Because the records under the original approach are no longer needed, related reports are also no longer needed. Therefore, these conditions have been removed from the permit. New reporting requirements have been added elsewhere in the permit addressing the reporting now required for the boilers by CAM. (See Section 3.2 of this Statement of Basis for further explanation.)

Conditions 7.1.10-3(a)(i) and 7.2.10-3(a)(i)

¹⁶ An "estimate" may be defined as an approximate calculation, a judgment, or the extent of something. "Magnitude" means the greatness of size, volume or extent, or the importance or significance of something. Accordingly, the original condition required an evaluation and leading to a determination about the level of emissions of PM and CO, i.e., compliant or noncompliant: minimal; moderate; severe; extreme, as an applicable hourly standard may have been exceeded.

Accordingly, these conditions did not require a numerical quantification of PM and CO emissions.

These conditions deal with reporting in the case of continued operation of the boilers during malfunctions and breakdowns. They require CWLP to provide certain notifications and reports concerning incidents when the operation of the boiler(s) continued with excess emissions, including malfunction or breakdown of the boiler.¹⁷ All such incidents must be reported by CWLP in its quarterly reports under Conditions 7.1.10-1(b) and 7.2.10-1(b) (periodic reporting of deviations) as well as Conditions 7.1.10-2(d) and 7.2.10-2(b) (reporting of opacity and PM emissions). In addition, CWLP must immediately notify the Illinois EPA of such incidents 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 the boiler by that time).

CWLP appealed these conditions. In negotiations, CWLP expressed concerns about providing immediate notification at a time when the circumstances surrounding the opacity exceedance may still be unfolding or the investigation is only at its initial stage. It became apparent that some of the assumptions that the Illinois EPA had made when initially selecting a timeframe of 30 minutes (five 6-minute averaging periods) were incorrect. The Illinois EPA had assumed that 30 minutes would provide a reasonable opportunity for CWLP to complete corrective action so that it would not need to undertake immediate reporting to the Illinois EPA for opacity exceedances that were relatively brief and accordingly likely minor in nature. In addition, it was believed that 30 minutes provides adequate time for CWLP to conduct an initial evaluation for more serious incidents, for which immediate reporting would be needed, so that such reports would be able to include useful information. Finally, it was also believed that 30 minutes would provide appropriate incentives for rapid implementation of corrective actions. However, it is now recognized that 30 minutes is not adequate for these purposes.¹⁸

Accordingly, the length of time before the immediate notification requirement is triggered has been increased from five to eight 6-minute averaging periods (30 minutes to 48 minutes). CWLP will now have 18 additional minutes in which to correct the problem or begin to shut down a boiler before it needs provide immediate notification. This will more effectively accomplish the underlying purposes of this requirement. The resulting consequences for compliance are expected to be trivial given the relatively small amount of additional time that CWLP has been provided.

Conditions 7.3.8, 7.4.8, and 7.6.8

The revised permit changes requirements for observations for opacity and visible emissions for the coal handling and processing operations as well as limestone/gypsum handling operations. The changes adjust the number of required opacity observations and add requirements for observations of visible emissions. If visible emissions are present by observations by Method 22, CWLP can either take corrective action within a designated two-hour period or conduct a follow-up observation for opacity using Method 9. These changes

¹⁷ Conditions 7.1.10-3(a)(ii) and 7.2.10-3(a)(ii) require incidents in which the PM standard(s) may have been exceeded (i.e., actually were exceeded or may have been exceeded based on relevant information that is available for an incident) to be reported to the Illinois EPA within 15 days.

¹⁸ To illustrate, once an opacity exceedance occurs, staff will likely have to physically travel to the suspected location of the problem, then inspect and diagnose what is happening, and, if necessary, call in supervisory staff- all before the possibility of corrective action becomes available. This provides very little time to take corrective action within 30-minutes.

include additional provisions related to the frequency of observations and to corrective actions.

The initial CAAPP permit provided for periodic monitoring through a variety of requirements. For coal handling, coal processing, and limestone/gypsum handling, Conditions 7.3.7, 7.4.7 and 7.6.7, respectively, set forth requirements for opacity observations. Conditions 7.3.8, 7.4.8 and 7.6.8, respectively, set forth the inspection requirements. The combination of requirements satisfies the need to periodically monitor the various pieces of equipment in these operations and processes to confirm that emissions comply with applicable standards. For the subject operations, the initial permit required opacity observations by Method 9 at least annually (i.e., a minimum of five observations during the five-year permit term). The initial permit also required inspections at least monthly, to confirm proper functioning of control measures and control devices and to identify the presence of any visible emissions. These inspections were required to be performed by personnel "not directly involved" in day-to-day operation.

CWLP appealed these requirements on the grounds that the subject operations and processes did not exhaust emissions through stacks and should not be subject to monitoring requirements intended for stack or non-fugitive emissions. In settlement negotiations, it was recognized that the subject operations should not have been treated as having control devices. Rather, various control measures that are commonly used to minimize emissions in the utility industry, and which were established for purposes of periodic monitoring, are present for these operations.¹⁹ As such measures do not involve stacks, it is wholly impractical to directly measure emissions with emissions testing and periodic monitoring is appropriately conducted through observations and inspections.²⁰

In addition, CWLP appealed the inspection requirements on the grounds that they should be performed by qualified personnel who possess the requisite knowledge to conduct the inspections in a safe manner.

The revised permit generally makes minor adjustments to the periodic monitoring for these operations and processes. The objective was to preserve the framework and continuity of the initial permit and not alter the basic approach taken for this periodic monitoring. At the same time, the Illinois EPA recognized the need to reconcile a revised permit secured through a negotiated settlement with 1) an admittedly erroneous assumption regarding the presence of control devices and 2) an inspection requirement that, although well-intentioned, poses certain implications on the quality and burdens associated with such inspections. On balance, the changes are consistent with the

¹⁹ Control measures act to prevent or minimize the emissions of a pollutant generated by an emission unit. Examples of control measures for particulate include the natural moisture content of a material, enclosure, and application of water or dust suppressant to a material. Control devices, on the other hand, collect the emissions of pollutant from a unit, which would otherwise be emitted to the atmosphere in the absence of such devices. Control devices for dust or particulate matter include equipment such as baghouses and scrubbers.

²⁰ It should also be noted that the revised CAAPP permit continues to apply 35 IAC 212.123, the general state standard for opacity, to the subject operations. In its appeal, CWLP claimed that this standard should not be applicable because these operations emit "fugitive particulate matter" for purposes of 35 IAC Part 212, Illinois' standards for Visible and Particulate Matter Emissions. However, 35 IAC 212.123 is applicable. For example, 35 IAC 211.2490, the definition of fugitive particulate matter, specifically provides that the absence of a stack on an emission unit does not exempt the unit from provisions in 35 IAC Part 212 that would otherwise be applicable.

periodic monitoring in the initial permit, strengthening the robustness of the overall approach.

First, in recognizing the use of control measures, rather than control devices, rather than requiring opacity observations on annual basis, two "mandatory" Method 9 observations are required during the permit term. However, observations for the presence of visible emissions, consistent with Method 22, are now required on annual basis, in place of the annual opacity observations by Method 9 that were previously required.^{21, 22} In these observations for visible emissions, the observer will determine the presence or absence of visible emissions. Method 22 observations must now be conducted annually, with observations for some operations conducted during the monthly inspection of the subject operations.²³ If visible emissions are present, as determined by observations in accordance with Method 22, CWLP can either take corrective action within two hours or conduct a follow-up Method 9 observation to determine the opacity value.^{24, 25}

Although certain aspects of the periodic monitoring for the subject operations have changed, the basic components, including observations, recordkeeping and reporting remain the same. More importantly, the overall approach to periodic monitoring has been strengthened due to the overall increase in the frequency of formal observations.

²¹ Method 22 involves observations for a period of time, with the duration of observation either set by the applicable regulatory or permit provision, with a minimum observation period of one minute required by the text of Method 22. While Method 22 was initially developed to determine the frequency or duration of visible emissions during the operation of an emission unit, it may also be adapted for use to determine the presence of visible emissions, as provided by 35 IAC 212.107. Unlike opacity observations by Method 9, a person making observations for visible emissions by Method 22 does not have to be "certified" to be qualified to make such observations. The observer must only be knowledgeable about the various conditions that may affect the visibility of emissions, either through review of appropriate written training materials or by attending the lecture portion of a Method 9 certification course, commonly referred to as "smoke school".

²² In comparison to Method 22, Method 9 entails making a numerical determination of the opacity of emissions, as a percentage. In Method 9, a human observer makes an instantaneous determination of opacity every 15 seconds for a set period, with the value of opacity being the average of a set of observations. Method 9 includes procedures and specifications for training and periodic certification of individuals who may authoritatively conduct observations of opacity.

²³ Condition 7.5.8(a) sets forth a inspection requirements for fly ash handling

²⁴ For certain operations, the Illinois EPA anticipates that CWLP will choose to immediately undertake observations for opacity to confirm compliance with the opacity standard. This is because, for those operations, some level of visible emissions or opacity may be present and there simply may be not be any corrective action that could be implemented to eliminate such emissions.

²⁵ A further explanation follows for how monitoring would occur under the revised permit, using a conveyor for purposes of discussion. At least one monthly inspection of the control measures on the conveyer each year must now include observations for visible emissions by Method 22. Follow-up observations for opacity by Method 9 would then be required if visible emissions are present and CWLP cannot complete corrective actions to eliminate the visible emissions within two hours. Thus, the requirement for observations for visible emissions could result in as many as five opacity observations for the conveyer during the five-year term of the permit (one each year). In addition, the revised permit also requires that two observations specifically for opacity be conducted during the term of the permit. Accordingly, the revised permit requires a minimum of at least two opacity observations and could require as many as seven opacity observations during the term of the permit. In contrast, the initial permit only required five opacity observations for the conveyer over the term of the permit.

Conditions 7.3.9(b)(ii) & (iii), 7.4.9(b)(iii) & (iv), and 7.6.9(b)(iii) & (iv)

Condition 5.6.2(d) from the initial CAAPP permit, which specifically addressed the availability to the Illinois EPA of certain records required in Chapter 7 of the permit, was deleted. The relevant requirement for availability of certain records, as was formerly addressed by Condition 5.6.2(d), is now directly addressed as part of Conditions 7.3.9(b), 7.4.9(b), and 7.6.9(b), the conditions that actually require that the subject records be kept.

The revised conditions also provide CWLP with more time to submit these records. For the initial records, the time increased to 60 days, from 30 days. For the revised records, the time increased to 30 days, from 10 days. Because these records do not involve matters for which the timing of review by the Illinois EPA would potentially be critical, these minor changes in the deadlines for CWLP to submit these records is not considered to have any material effect.

Conditions 7.3.10(a)(i)(A), 7.4.10(a)(i)(A), 7.5.10(a)(i)(A), 7.6.10(a)(i)(A) and 7.7.10-1(a)(i)(A)

The notification and reporting requirements for continued operation of the, coal handling and processing operations, fly ash processes, limestone/gypsum handling, and engines during malfunctions and breakdowns are revised. Under these provisions, CWLP 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 source has begun to shut down the operation by that time), instead of five or more six-minute averaging periods, as required in the initial permit.

Conditions 7.3.10(a), 7.4.10(a), 7.5.10(a), 7.6.10(a) and 7.7.10-1(a) involve reporting requirements in the case of continued operation of the subject operations and processes with excess emissions during malfunctions and breakdowns. The conditions require CWLP to provide certain notifications and reports to Illinois EPA concerning incidents when operation continued with excess emissions, including malfunction or breakdown.

CWLP must report all such incidents in its quarterly reports under Conditions 7.3.10(b)(ii), 7.4.10(b)(ii), 7.5.10(b)(ii), 7.6.10(b)(ii), and 7.7.10-1(b)(ii). In addition, CWLP must immediately notify the Illinois EPA of such incidents when the opacity from a subject operation or process exceeds 30 percent for a certain number of 6-minute averaging periods (unless CWLP has begun to shut down the operation or process by that time).

The revised CAAPP Permit would extend the number of 6-minute averaging periods from five to eight before the immediate notification requirement is triggered. In other words, for the subject coal handling and processing operations, CWLP now has an additional 18 minutes to attempt to correct a problem at an operation or begin shutdown before it needs to provide immediate notification. For the fly ash processes, CWLP has an additional 24 minutes to attempt to correct the problem at a subject process or begin shutdown of the process before it needs to provide immediate notification. Further discussion is provided in relation to the changes to Condition 7.1.10-3(a)(i).

3.2 Changes to the Permit Related to Compliance Assurance Monitoring (CAM)

Discussion

In the federal rules for Compliance Assurance Monitoring (CAM), 40 CFR Part 64, the need for compliance assurance monitoring with a formal CAM Plan is addressed separately relative to the various emission standards and limits that apply to an emissions unit for emission of different pollutants. For this purpose, CAM uses the term "Pollutant Specific Emission Unit" (PSEU) to distinguish an emission unit and a specific pollutant that must be considered when addressing whether a CAM Plan is needed for that unit relative to the emissions of the pollutant.

In this regard, the coal-fired boilers at the Dallman Station emit a number of regulated pollutants subject to emission standards, including SO₂, NO_x and PM. For purposes of applicability of CAM, the boilers are considered separate PSEUs for each such pollutant. CAM Plan(s) are only required for the boilers as they are PSEUs for emissions of PM. Although the boilers are PSEUs for other pollutants, CAM plans are not required by virtue of inapplicability or exemptions. For these other pollutants, the criteria under CAM to need a CAM Plan may not have been met by the boilers, e.g., add-on control equipment is not used for the pollutant, or an exemption under CAM has otherwise been met by the boilers, e.g., continuous emissions monitoring is required to be conducted for the emissions of the pollutant, so a CAM Plan is not needed. This will be discussed further below.

As also discussed further below, other emission units at the Dallman Station are not PSEUs that would be required to have CAM Plans for any pollutants. These other emission units either do not meet the applicability criteria to need a CAM Plan or meet an exemption from the need for such a CAM Plan.

Removal of Condition 5.2.7 - "Future applicability" of CAM

In the initial CAAPP permit, Condition 5.2.7 required CWLP to address the CAM rules upon application for renewal of its CAAPP permit or upon application for a significant modification of the permit. The current permitting action now involves a significant modification to the permit and CAM is now being addressed for the emission units that are the subject of this action. Thus, Condition 5.2.7 became obsolete and has been removed from the permit.

Addition of Non-Applicability Statements

Condition 7.1.5(c) - Federal Acid Rain Program (SO₂ and NO_x emissions): Boilers 31 and 32 are subject to requirements of the federal Acid Rain program. This program, which addresses emissions of SO₂ and NO_x from Electric Generating Units (EGU), also require continuous emissions monitoring for SO₂ and NO_x. CAM contains an exemption for the Acid Rain program, 40 CFR 64.2(b)(1)(iii). Therefore, a non-applicability statement has been added to the permit for these boilers relative to the Acid Rain program.

Condition 7.1.5(d) - State emission standards for SO₂ and NO_x: Boilers 31 and 32 are subject to state standards for SO₂ and NO_x emissions. The CAAPP permit contains continuous compliance determination methods for these standards. In accordance with 40 CFR 64.2(b)(1)(vi), PSEUs do not need a CAM Plan if a continuous compliance determination method is specified by the Title V permit. Therefore, a non-applicability statement has been added to the permit for these boilers relative to these standards.

Condition 7.1.5(e) - State emission standard for CO: Boilers 31 and 32 are subject to a state standard for CO emissions. However, control devices, as defined by 40 CFR 64.1, are not used on these boilers for CO emissions. Therefore, a non-applicability statement has been added to the permit for these boilers relative to the CO standard.

Condition 7.2.5(d) - Federal Acid Rain Program (SO₂ and NO_x): For Boiler 33, applicability of the federal Acid Rain Program also does not result in the need for a CAM Plan. Refer to the above discussion for Condition 7.1.5(c).

Condition 7.2.5(e) State and NSPS emissions standards for SO₂ and NO_x: For Dallman Boiler 33, applicability of SO₂ and NO_x emission standards also does not result in the need for a CAM Plan. Refer to the above discussion for Condition 7.1.5(d).

Condition 7.2.5(f) - State emission standard for CO: For Boiler 33, applicability of a CO emission standard also does not result in the need for a CAM Plan. Refer to the above discussion for Condition 7.1.5(e).

Condition 7.3.5(b) - Coal Handling Operation: The coal handling equipment, which consists of various transfer and storage operations, are subject to NSPS standards for PM emissions. However, there are no control devices as defined by 40 CFR 64.1 for PM used on handling. Therefore, a non-applicability statement has been added to the permit for these operations and these emission standards.

Condition 7.4.5(a) - Coal Processing: The coal processing equipment, which consists of coal crushing, are subject to state and NSPS standards for PM emissions. However, this equipment is not equipped with control devices, as defined by 40 CFR 64.1, for PM. Therefore, a non-applicability statement has been added for these PSEU's relative to the applicable PM emission standards.

Condition 7.5.5(b) - Fly Ash Handling: The fly ash handling operations, which consist of various transfer and storage equipment, are subject to state requirements for PM emissions. However, this equipment, both on an individual and aggregate emission unit basis, has pre-control PTE emissions of PM less than major source thresholds. Therefore, a non-applicability statement addressing these operations has been added to the permit.

Condition 7.6.5(a) - Limestone and Gypsum Handling: The limestone and gypsum handling operation, which consists of various transfer and storage equipment, are subject to state requirements for PM emissions. However, this equipment, both on an individual and aggregate emission unit basis, has pre-control PTE emissions of PM less than major source thresholds. Therefore, a non-applicability statement addressing these operations has been added to the permit.

Condition 7.7.5(c) - Engine Generators: The engines are subject to a state emission standard and construction permit limits for SO₂ emissions as well as construction permit limits for NO_x, CO, VOM, and PM emissions. However, control device(s) as defined by 40 CFR 64.1 are not used for any pollutants. Therefore, a non-applicability statement addressing these units has been added to the permit.

Condition 7.8.5(b) - Gasoline Handling: Section 7.8 of the permit, which deals with the gasoline handling operation, is not affected by this significant

modification. Therefore, CAM need not be addressed for this operation at this time. Condition 7.8.5(b) has been added to the permit to reflect this fact.

Addition of Monitoring, Recordkeeping And Reporting Requirements to Accompany the CAM Plan for the Coal-fired Boilers for PM Emissions

The CAAPP permit must now address the monitoring, recordkeeping and reporting that CWLP must conduct for the coal-fired boilers in conjunction with its CAM plan for PM emissions. New Conditions 7.1.8(e), 7.1.9(i) and 7.1.10-2(h) in the revised permit would contain these requirements for Boilers 31 and 32. New Conditions 7.2.8(e), 7.2.9(i) and 7.2.10-2(h) would contain these requirements for Boiler 33. These conditions would reiterate the relevant requirements for monitoring, recordkeeping and reporting that are specified by 40 CFR Part 64 for PSEUs that are the subjects of CAM Plans.²⁶

Approval of CWLP's CAM Plan for PM Emissions of the Coal-fired Boilers

Introduction:

In this planned significant modification, the Illinois EPA is proposing to approve the CAM Plan that CWLP has submitted for the coal-fired boilers to address compliance with the applicable PM emission standards.²⁷ The relevant elements of this CAM Plan, as specified by 40 CFR 64.6, would be included in the revised permit as Attachment 6.

Description of the CAM Plan:

CWLP's CAM plan would use opacity as the CAM indicator for PM emissions of the coal-fired boilers. Opacity is monitored by the existing Continuous Opacity Monitor Systems (COMS) on these boilers. These COMS are installed on the ductwork of the boilers between the ESPs and the SO₂ scrubbers.²⁸ These COMS must continue to be operated to meet the specifications for opacity monitoring systems per 40 CFR Part 75 and Performance Specification 1 in 40 CFR Part 60, Appendix B.

For each boiler, an excursion would be opacity greater than 20 percent, block hourly average. Upon occurrence of an excursion, CWLP would have to take action for the boiler as necessary to return to the normal or usual manner of operation, which would reasonably assure that the boiler is complying with the applicable PM standard(s). CWLP's CAM Plan does not include a process by which a new indicator range could be set for a boiler without a revision to the permit.

Discussion of the Rationale for Use of Opacity As the Indicator Parameter:

For purposes of air pollution control, opacity is the degree to which the transmission of light through the exhaust from an emission unit is reduced by the presence of particulate in the exhaust. In simpler terms, it is the

²⁶ For the requirements of CAM related to monitoring, refer to 40 CFR 64.7(c) and (d), for required recordkeeping refer to 40 CFR 64.9(b), and for required reporting refer to 40 CFR 64.9(a).

²⁷ For Boilers 31 and 32, this plan addresses 35 IAC 212.202. For Boiler 33, this plan addresses 40 CFR 60.42(a)(1) and 35 IAC 212.204.

These emission standards all limit PM emissions to 0.1 pounds/mmBtu.

²⁸ Boilers 31 and 32 share a common scrubber and stack. Boiler 33 has its own scrubber and stack.

"obscuring power" of the exhaust, expressed as a percent. As particulate in the exhaust from an emission unit acts to interfere with the passage of light through that exhaust, the level of opacity from an emission unit is indicative of the level of particulate in the exhaust. Accordingly, opacity readily serves as an indicator of PM emissions and the performance of PM control devices. Higher levels of opacity indicate higher rates of emissions. Lower levels of opacity indicate lower rates of emissions.

As a general matter, opacity monitoring is a well established means to address PM emissions. Numerical values of opacity can be reliably determined by observations of the exhaust from emission units by individuals who have been properly trained and demonstrated their ability to make such observations.²⁹ Numerical measurements of observations can also be made with monitoring instruments that are installed in the stack or duct work of an emission unit, in which case opacity can be determined on a continuous basis. Standards and limits for opacity commonly address average opacity over a period of six minutes, based on a number of individual readings or measurements during such period. Accordingly, data for opacity is commonly reported as six minute averages, consistent with the terms in which opacity is commonly regulated. However, opacity can also be determined for shorter or longer averaging periods, including on an hourly basis, as proposed by CWLP in its CAM Plan.

For the coal-fired boilers at the Dallman Station, the use of opacity as the CAM indicator will provide an effective means of assuring compliance with the applicable PM standards on an ongoing basis between the periodic stack tests for PM emissions. Indeed, for these boilers, opacity monitoring is currently required by both federal rules (40 CFR 75.14) and state rules (35 IAC Part 201, Subpart M) as a means to address proper operation as related to PM emissions. Moreover, 40 CFR 64.3(d)(1) specifically provides that if a COMS is required for an emission unit pursuant to the Clean Air Act or regulations adopted thereunder, the COMS shall be used to satisfy CAM. 40 CFR 64.3(d)(2) further provides that a COMS that satisfies the monitoring requirements of 40 CFR Part 75, like the COMS on these boilers, shall be deemed to satisfy the general design criteria for a CAM Plan, provided that monitoring with a COMS may be subject to the criteria for establishing indicator ranges.^{30, 31}

²⁹ The determination of opacity by human observations is addressed by USEPA Reference Method 9, *Visual Determination of the Opacity of Emissions from Stationary Sources*. This method addresses the training and certification of individuals to make such determinations by means of a smoke generator. This is a device that can be readily adjusted generate both white and black smoke with opacity ranging from zero to 100 percent. The stack of the smoke generator is equipped with a "smoke meter" to provide instrumental opacity measurements for the smoke that is being generated. Individuals seeking to become certified opacity observers must demonstrate their ability to match the instrumental measurement of opacity over a run of 50 plumes of differing opacity. To be certified, the candidate must not have an error greater than 15 percent on any reading and must be within 7.5 percent for the average of all his or her readings. The certification process must be repeated every six months.

Method 9 also addresses the procedures that must be made by certified observers when making actual determinations of opacity for emission units.

³⁰ In addition, 40 CFR 64.4(b) also provides that a COMS that satisfies the requirements and specifications in 40 CFR 64.3(d), as the COMS on these coal-fired boilers do, is "presumptively acceptable monitoring" for purposes of CAM. As CWLP's CAM Plan would use presumptively acceptable monitoring, CWLP did not have to provide justification for the appropriateness for the use continuous opacity monitoring in its CAM Plan other than an explanation of the applicability of such monitoring to these boilers, unless data or information is brought forward to rebut that assumption.

³¹ As explained by USEPA in the preamble to the adoption of CAM, CAM monitoring with a

Given these circumstances, it is wholly appropriate in the proposed CAM Plan for CWLP to have selected opacity as the indicator for PM emissions. CWLP has not proposed to use other secondary indicators in this plan. CWLP could have proposed in this plan to also use actual operating parameters of the ESPs on the boilers. This would have made the CAM Plan far more complicated than the proposed plan. This is because an ESP for a coal-fired utility boiler is composed of many sections, each with its own electrical system. The overall performance of the ESP is affected by how each section in the ESP is performing and the position of the ESP sections relative to each other.³² If CWLP had proposed in its CAM Plan to use ESP operating parameters, it would have been reasonable for it to address both these factors.³³ Use of ESP operating parameters in the CAM Plan also would not necessarily have provided additional assurance of compliance with the applicable PM standards. This is because the ESP is only one factor in the PM emissions of the boilers. ESP operating parameters would also only address certain aspects of the operation of an ESP, e.g., the electrical power consumption of the ESP. In contrast, opacity serves as a direct indicator of the overall performance of the ESP. This is because opacity also addresses aspects of ESP operation for which there is not instrumentation, such as proper operation of the ash hoppers.³⁴

required COMS must be conducted using an appropriate indicator range for opacity that satisfies 40 CFR 64.3(a)(2) and (3). See 62 FR 54923, October 22, 1997.

³² In an ESP for a coal-fired boiler, the exhaust flow is divided and passes through the ESP in separate "gas paths," each path having several ESP sections in series. The control efficiency of the ESP depends on the aggregate performance of all the sections in the ESP. Reduced performance of the ESP sections in the same gas path has a larger effect on overall ESP efficiency than the same reduction in performance spread across different gas paths. In the first case, the control efficiency for a portion of the exhaust flow is greatly impacted. In the second case, while more of the gas flow is affected, the overall impact is less.

³³ For example, in 2003 when developing its CAM Technical Guidance to assist subject sources and permit authorities, USEPA recognized that ESP operating parameters could not readily be used to address the performance of an ESP on a coal-fired boiler. In its proposed CAM Protocol for ESPs on coal-fired boilers, USEPA suggested a two-stage approach to CAM monitoring for coal-fired boilers. The first stage relied on opacity. The second stage, which would involve ESP operating parameters, would only come into play when opacity exceeded a threshold value. However, the ESP operating parameters would not be directly be used as indicators of compliance. The indicator under the CAM Plan would be the "required" efficiency of the ESP as set from on emission testing. When the opacity threshold for a boiler was exceeded, the relevant operational data for its ESP would then be used with an appropriately tailored computerized ESP model. Finally, the control efficiency of the ESP calculated by the computer would be compared to the indicator value or range of control efficiency established under the CAM Plan, to determine whether an exceedance actually occurred. As explained by USEPA, a less accurate indication of ESP performance (opacity) would be used to warn a source that ESP performance had deteriorated to a level that required the source to run a computer model to confirm a reasonable assurance of compliance. Refer to *Compliance Assurance Monitoring (CAM) Protocol or an Electrostatic Precipitator (ESP) Controlling Particulate Matter (PM) Emissions from a Coal-Fired Boiler* (proposed), USEPA, April 2003.

³⁴ The fact that the initial CAAPP permit requires CWLP to conduct operational monitoring for various operating parameters of the ESP does not show that the CAM Plan should be based on these operating parameters. It is appropriate that such operating records be required for the ESP for several reasons. These records will help assure that the ESP is properly operated and maintained. This is because they may directly reveal deterioration in the operational condition of particular section in the ESP, which should be addressed as part of periodic maintenance and repair of the ESP. These records will also facilitate corrective action in the event of opacity excursions. In particular, when an opacity excursion is caused by electrical problem with the ESP, as is often the case, these records enable CWLP to readily determine this and assist in the diagnosis of such problems. If electrical problems at the ESP

In its CAM Plan, CWLP could also have proposed to consider the operation of the two SO₂ scrubbers, which follow the ESPs in the control trains for the boilers. However, CWLP did not elect to consider the scrubbers since they are not used as control devices for PM. In addition, as these scrubbers serve to control SO₂ emissions, proper operation of the scrubbers is addressed by the SO₂ continuous emissions monitoring systems on the boilers.

Discussion of Justification for the Selected Indicator Range for Opacity

In its proposed CAM Plan, CWLP uses opacity on an hourly average basis as the indicator for compliance with the PM standard(s) that apply to the coal-fired boilers. It is appropriate that the CAM Plan address opacity over an averaging period that is longer than six-minutes, using an averaging period that is consistent with the compliance time period of the applicable PM standards.

For these affected boilers at the Dallman Station, past stack testing for the emissions units provides the basis for affirming a reasonable relationship between the hourly opacity of the boilers and their PM emissions. The results of this testing show that the boilers complied with the applicable PM standards with a substantial margin of compliance with opacity that never exceeded 12 percent, hourly average.³⁵ For Boilers 31 and 32, the highest

are not the cause of an excursion, it will also enable CWLP to focus on other aspects of the operation of the ESP and associated boiler.

³⁵ The results of the recent PM emission testing for the boilers are provided below:

Boilers 31/32			
Test Date	Run	PM (lb/mmBtu)	Opacity (percent, Unit 31/32)
Aug. 31, 2011	1	0.033	5.2/6.2
	2	0.04	6.5/6.5
	3	0.056	7.0/6.2
	Ave.	0.043	6.2/6.3
Sept. 5, 2012	1	0.009	8.2/7.6
	2	0.011	8.2/7.7
	3	0.01	7.8/9.6
	Ave.	0.01	8.1/8.3
Feb. 17, 2012*	1	0.019	11.1/--
	2	0.03	11.2/--
	3	0.039	11.3/--
	Ave.	0.029	11.2/--

* Only Boiler 31 was operating during this emission test.

Boiler 33			
Test Date	Run	PM (lb/mmBtu)	Opacity (percent)
Aug. 18, 2011	1	0.0741	8.4
	2	0.0627	8.1
	3	0.0634	8.5
	Ave.	0.0667	8.33
Sept. 6, 2012	1	0.0084	8.0
	2	0.0073	9.0
	3	0.0097	8.7
	Ave.	0.0084	8.57
Oct. 23, 2012	1	0.0162	10.6
	2	0.0219	10.9
	3	0.0152	10.5
	Ave.	0.0178	10.7

average PM emission rate measured in three tests was 0.043 lb/mmBtu. For Boiler 33, the highest average PM emission rate measured in four tests was 0.0667 lb/mmBtu.

Pursuant to 40 FR 63.3(c), when developing the range for an indicator in a CAM Plan, a source may take into account site-specific factors including the "level of actual emissions relative to the compliance limitation". Accordingly, CWLP did not need to propose an indicator range that was identical to the highest value of opacity at which compliance with the applicable PM standards was shown by stack testing. In light of the margin of compliance shown by stack testing, CWLP has used an indicator range of 20 percent opacity, block hourly average, in its CAM Plan. Numerically, 20 percent opacity is identical to the opacity standards that applies to Boiler 33 on a six-minute average. As a practical matter, the opacity of Boiler 33 cannot be greater than 20 percent, hourly average, without also exceeding the applicable opacity standards. Thus, the operation of this boiler is effectively constrained by the opacity standards in a manner that reasonably assures compliance with the applicable PM standards. While this constrain does not exist for Boilers 31 and 32, CWLP has also proposed to use an indicator range of 20 percent for these boilers.

The Illinois EPA has determined that 20 percent opacity, hourly average, as used by CWLP as the indicator value in its proposed CAM Plan for the boilers, is conservative and should be found acceptable. Based on the results of the recent stack tests conducted on the boilers and the fundamental assumption that the opacity from a boiler is zero when it is not operating, linear correlations were developed between measured levels of opacity and PM emissions from the boilers. Based on the correlation for Boilers 31 and 32, the predicted PM emission rate at 20 percent opacity, hourly average, is well below the applicable emission standard, i.e., 0.062 lb/mmBtu compared to 0.10 lb/mmBtu.³⁶ For Boiler 33, the predicted PM emission rate at 20 percent opacity, hourly average, is also below the applicable standards, i.e., 0.071 lb/mmBtu compared to 0.10 lb/mmBtu.³⁷

3.3 Changes to the Permit Related to the Future Reopening

Discussion:

As already discussed, overlapping with revisions to the initial CAAPP permit for the Dallman Station that arise from settlement of the appeal, the Illinois EPA will be initiating a formal reopening of this CAAPP permit under the procedures for reopening of a CAAPP permit. This will be done pursuant to Section 39.5(15)(a)(i) of the Act to add additional requirements to this CAAPP permit, i.e., requirements under the Clean Air Act that have become applicable to the Dallman Station since the initial permit was issued in 2005.

Test Date	Run	PM (lb/mmBtu)	Opacity (percent)
Oct. 24, 2012	1	0.0365	10.5
	2	0.0616	11.4
	3	0.0415	10.8
	Ave.	0.0465	10.9

³⁶ For Boilers 31 and 32, the hourly levels of opacity associated with PM emissions at the applicable standard (0.10 lb/mmBtu) and 90 percent of the standard (0.09 lb/mmBtu) were about 34 and 30 percent, respectively.

³⁷ For Boiler 33, the hourly levels of opacity associated with PM emissions at the applicable standards (0.10 lb/mmBtu) and 90 percent of the standards (0.09 lb/mmBtu) were about 28 and 25 percent, respectively.

New Condition 5.9 would require CWLP to appropriately assist the Illinois EPA in this reopening of the CAAPP permit, in accordance with Section 39.5(15)(a)(i) of the Act and 35 IAC 270.503(a)(1). This condition would require CWLP to provide certain information to the Illinois EPA in advance of, or contemporaneous with, this permit reopening to assist the Illinois EPA in this reopening of the permit. This condition would be included in the revised permit in order to address a concern expressed by USEPA in a separate CAAPP appeal and avoid potential objection or other administrative action by USEPA.

Timing of Information Submittal:

CWLP would be required to submit certain information, as specified by new Condition 5.9(a)(i) and (ii), to the Illinois EPA within 30 days of the permit's issuance, unless the CAAPP permit has been reopened at the time of permit issuance. The information shall be submitted as part of a revised CAAPP permit application.

Identification of Additional Clean Air Act Requirements:

As part of the information required to be submitted by this condition, CWLP would be required to identify all additional Clean Air Act requirements that have become applicable to the source since September 29, 2005. This identification must adhere to the definition of "applicable Clean Air Act requirement," as set forth in Section 39.5(1) of the Act.

Identification of Related Noncompliance:

CWLP would also be required to identify any noncompliance associated with these new applicable Clean Air Act requirement, including the identification of the requirement and affected emission unit(s), the nature of the noncompliance, an explanation of the source's failure to comply with the requirement and a proposed compliance plan and schedule for the subject emission unit(s).

CHAPTER IV - SUPPLEMENTAL INFORMATION

This chapter provides supplemental information that may assist interested individuals in understanding the permitting action that is now planned as it provides background on the CAAPP permit that was initially issued for this source and certain provisions included in the CAAPP permits issued for coal-fired power plants.

4.1 Discussion of Monitoring for Significant Emission Units³⁸

a. Coal-Fired Boilers

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

CO emissions from the boilers are addressed by good combustion practices. NO_x emissions from the boilers are controlled by combustion control measures including low-NO_x burners (LNB), over fire air systems (OFA) and add-on selective catalytic reduction system (SCR). PM emissions are controlled by electrostatic precipitators (ESP). SO₂ emissions are controlled by scrubbers.

The boilers are subject to emission standards for CO, NO_x, PM and SO₂. They are also subject to standards for the opacity of emissions. The boilers are also subject to the federal Acid Rain Program, which imposes requirements on SO₂ and NO_x emissions and requires that the boilers be equipped with continuous emissions monitoring systems (CEMS) for SO₂ and NO_x with computerized systems for collection of emission data.

For PM, for which continuous emissions monitoring is not performed, emissions testing is required. Recent testing of the boilers for PM showed compliance with the applicable limits (0.1 lb/mmBtu) with significant margins of compliance.³⁹ Initial PM testing under the CAAPP is to be performed within one year of the revised permit becoming effective. The time interval between subsequent stack testing is, in part, dictated by the results of the prior test. CO testing is also required for the boilers and shall be performed in conjunction with 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 maximum operating load range and during other operating conditions that are consistent with normal operation of the boilers.

The boilers are operated pursuant to formal operating procedures. The permit require that the boilers must be started up in accordance with procedures that are developed and maintained to minimize emissions.

The boilers have the potential to exceed the applicable emission standards during malfunction and breakdown. As provided by applicable state rules,⁴⁰ subject to certain terms and conditions, the permit authorizes CWLP to make

³⁸ This discussion does not address Dallman Boiler 34 and its ancillary operations.

This discussion also does not address insignificant activities at this source. Insignificant activities at the source are addressed in Section 3 of the initial CAAPP permit.

³⁹ See PM test results in Section 3.2 of this Statement of Basis.

⁴⁰ For Dallman Boiler 34, as it is subject to NSPS standards, operation during startup, malfunction and shutdown with emissions that exceed such standards is addressed in accordance with relevant provisions of the NSPS.

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, CWLP 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. For Boiler 33, which is also subject to federal New Source Performance Standards, 40 CFR Part 60, exceedances of those standards is addressed in accordance with the applicable federal rules.

The source 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 source'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 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, CO, or NO_x emissions may have exceeded the applicable standard; a detailed explanation of why continued operation of the affected boiler was necessary; 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; and an estimate of the magnitude of excess emissions during the incident. CWLP must also keep a maintenance and repair "log".

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, are 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 (20 exceedances). The source is also required to submit quarterly reports that address exceedances, along with certain data from the CEMS for SO₂, NO_x and opacity.

The source 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 load achieved by each boiler; a discussion of significant changes in the fuel supply; the number, nature, and total duration of startups; information for SO₂, NO_x, and PM emissions and opacity; and operational information for continuous monitoring systems. These reports must include the following information for each period when emissions were in excess of an applicable limitation: the starting date, time, and duration of the excess emissions; the measured emissions rate; and a detailed explanation of the cause of the excess emissions with a discussion of the corrective actions taken to lessen the emissions. Similar information would be required in the unlikely event that CO emissions exceeded the applicable standard, as would be determined from operational data for a boiler.

For opacity and PM exceedances, the quarterly reports must also contain summary information. For each type of recurring opacity exceedance, the reports must include information addressing the effectiveness of corrective actions and the role of component failure or degradation. In addition, these reports must provide further information for any new type(s) of opacity exceedance, including a general narrative description, a general explanation of the cause(s), a detailed explanation of the corrective actions, the effectiveness of those actions and the likelihood of future occurrence. Other information relevant to generally explaining the number and magnitude of opacity and PM exceedances during the quarter should also be reported.

For malfunction/breakdown, the source shall immediately notify the Illinois EPA when the applicable PM emissions standard could be exceeded or where the opacity from the boiler exceeds or may have exceeded the applicable limit for more than the specified time period. A follow-up report is required within 15 days.

b. Coal Handling and Coal Processing

The source handles, transfers, and stores coal in a series of operations. Coal processing is also conducted to reduce the size of the coal to meet the fuel size requirements of the boilers. PM from coal-handling and coal processing is controlled by various measures including a dust collection device on the surge bin, the natural moisture content of the coal, application of dust suppressant and water spray, as well as with enclosures and covers. The PM emission from coal handling and processing are subject to an opacity limit and various regulations that address fugitive PM emissions. The PM emissions from coal processing operations are also subject to PM emission standards for process emission units.

For coal handling and processing, monthly inspections of control measures are to be performed at least while the equipment is in use. These inspections are to confirm implementation of the work practices to control dust (PM emissions).

For coal handling and processing, opacity testing is to be performed on an annual basis with initial testing generally required within three months of the permit condition becoming effective and subsequent testing shall be performed at least annually.

For both coal handling and processing, records shall be maintained for, among other things, the control measures that are being used, operational data, maintenance and repair activities, and any malfunction/breakdown of equipment. Records of the required inspections shall also be kept.

Reporting of deviations from the established control measures that last more than 12 hours shall 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.

c. Ash Handling Process

The source operates ash removal systems that handle ash collected at the coal-fired boilers in a dry state. PM is controlled by enclosures.

Regular inspections of control measures are required of the operation while the equipment is in use.

Testing shall be performed at least annually. Such observations are only required for ash handling equipment from which visible emissions, i.e., any visible emission, are normally observed. All units must also undergo PM testing at the request of the Agency.

The source shall keep records of, among other things, the specific control measures that are used, operational data, required inspections, and times when the control measures are not utilized.

Reporting of an extended deviation from the identified control measures, more than two hours, shall occur within 30 days. All deviations from applicable requirements in the permit shall be addressed in the quarterly report accompanying the report for the coal-fired boilers.

d. **Limestone and Gypsum Handling**

The source handles bulk limestone and gypsum in conjunction with the operation of the SO₂ scrubbers for the boilers. PM emissions are controlled by various control measures including moisture content of limestone and gypsum as well as enclosures.

Regular inspections of control measures are required of the operation while the equipment is in use. Opacity observations shall be performed at least annually. Such observations are only required for equipment from which visible emissions, i.e., any visible emission, are normally observed. All units must also undergo PM testing at the request of the Agency.

The source shall keep records of, among other things, the specific control measures that are used, operational data, required inspections, and times when the control measures are not utilized.

Reporting of an extended deviation from the identified control measures, generally more than two and twelve hours respectively, shall occur within 30 days. All deviations from applicable permit requirements shall be addressed in the quarterly report accompanying the report for the coal-fired boilers.

e. **Engine-Generators**

The source operates diesel engine generators for backup power and to meet various on site needs for electricity in the event of disruptions in the plant's internal power system. These engines are fired with distillate fuel oil, which is the only fuel allowed to be used.

The source is required to perform opacity observations every 500 hours of operation or upon written request from the Illinois EPA. The source is also required to do fuel oil sampling and analysis.

The source shall keep of, among other things, operation of engines, fuel shipment records, total fuel used, and emission calculations.

Reporting of an extended deviation from the identified control measures, generally more than two and twelve hours respectively, shall occur within 30 days. All deviations from applicable permit requirements shall be addressed in the quarterly report accompanying the report for the coal-fired boilers.

f. Gasoline Storage

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

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

4.2 Discussion of Reporting Required by CAAPP Permits

The effectiveness of the CAAPP relies in part upon accurate and timely reporting by sources. The Illinois EPA, USEPA, and the public rely on reports submitted by sources for information about the compliance status of sources and to help guide their investigations and actions. CAAPP permits generally contain four types of reporting requirements to address and facilitate compliance with applicable requirements. CAAPP permits contain "regulatory" reporting requirements that are carried over from applicable state and federal rules. CAAPP permits require prompt reporting of any deviations that occur from the applicable requirements in the permit. CAAPP permits also require reports on the monitoring that is required under the permit. Finally, CAAPP permits require annual compliance reports or "compliance certifications" in which a source must report on its compliance status during the preceding calendar year. All these reports must be certified by the responsible official for the source for their truth and accuracy. These four types of reporting are all present in the initial CAAPP permit for this source.

Regulatory Reports

As provided by Section 39.5(7)(b) of the Act, CAAPP permits must address reporting requirements under applicable rules. Many state and federal air pollution control rules contain reporting requirements. The regulatory reporting requirements contained in any CAAPP permit are source-specific as they depend upon the nature of the emission units at a source and the applicable rules to which these units are subject. The actual reporting requirements vary from rule to rule, with different trigger events, reporting frequency, required content, etc. Depending on the nature of these requirements, these regulatory reports may also constitute a deviation report as described below.

The initial CAAPP Permit for this source addresses all regulatory reporting requirements under federal and state rules under the Clean Air Act and the Act as of the date that the permit was issued. Because of their required content and timing, some of these regulatory reports may also serve for prompt reporting of deviations or monitoring reports.

Deviation Reports (Prompt Reporting)

Section 39.5(7)(f)(ii) of the Act mandates that each CAAPP permit require prompt reporting of deviations from permit requirements. The reporting of deviations directly facilitates timely actions by CAAPP sources to address any deviations that may occur. This includes timely implementation by sources of corrective actions for the deviations and appropriate actions to prevent

similar incidents. Prompt reporting of deviations is also essential for the Illinois EPA and others to have timely notice of deviations and the opportunity to respond as appropriate. Any excursion from a standard, emission limit, operating requirement or work practice standard, as specified by a CAAPP permit, is a deviation subject to prompt reporting. Additionally, any failure to comply with any permit term or condition is a deviation that must be reported as a deviation. A deviation may or may not constitute a violation of an applicable emission limit or standard. A deviation can occur even though other indicators of compliance suggest that an emission violation or exceedance has not occurred.

The CAAPP and the federal rules upon which the CAAPP is based do not define the term "prompt". Rather, 40 CFR Part 70.6(a)(3)(iii)(B) provide permitting authorities, in this case, the Illinois EPA, with the authority to define "prompt" in relation to the degree and types of deviation likely to occur at particular emission units. Accordingly, the Illinois EPA must set the timing of prompt reporting on a case-by-case basis. As a general matter, where an underlying applicable regulatory requirement specifies "prompt reporting" (e.g., exceedance reporting under the NSPS), the Illinois EPA typically uses that pre-established timeframe in a CAAPP permit. Where the underlying applicable requirement does not specify a timeframe for reporting deviations, the Illinois EPA commonly uses a timeframe of 30 days for prompt reporting.

This approach to prompt reporting of deviations is consistent with the Section 39.5(7)(f)(ii) of the Act as well as the Clean Air Act and 40 CFR Part 70. The requirements in CAAPP permits for deviation reporting are developed so that sources will appropriately notify the Illinois EPA of those events that might warrant individual attention. The timing for these event-specific reports is set to give sources adequate time to conduct a reasonable investigation into the causes of an event, collecting any necessary data and developing preventive measures to reduce the likelihood of similar events, all of which must be addressed in the report for a deviation. At the same time, the timing for these reports is also set to provide the Illinois EPA and others with relevant information in a timely manner. This is necessary so that the Illinois EPA and USEPA have the ability to expeditiously initiate investigations and make follow-up compliance and enforcement decisions.

The CAAPP permit for this source requires prompt reporting of deviations in accordance with the Act. In addition, pursuant to Section 39.5(7)(f)(i) of the Act, this CAAPP permit requires the source to provide a summary of all deviations in quarterly reports. The requirements for reporting deviations for each group of emission units are generally found in "reporting conditions" for those units.

Monitoring Reports

Section 39.5(7)(f)(i) of the Act mandates that each CAAPP permit require periodic reports relative to the monitoring required by the permit. For this purpose, monitoring includes instrumental and non-instrumental emissions monitoring, emissions analyses, and emissions testing established by state or federal rules or as established in the CAAPP permit. Monitoring also includes recordkeeping. Depending upon the monitoring that is at issue, the monitoring reports may also constitute deviation reports, as already discussed. In addition, deviations from monitoring requirements must be identified in these reports. If deviations from monitoring requirements have not occurred, these reports must still be submitted confirming that monitoring was conducted properly. These monitoring reports are commonly required on a semi-annual

basis, addressing the periods of January 1 through June 30 or July 1 through December 31 of a year. Each report is due within 30 days after the close of reporting period.

Annual Compliance Certifications

Section 39.5(7)(p)(v) of the Act mandates that each CAAPP permit require the source to submit annual certifications of its compliance status for each term and condition in its CAAPP permit. These reports afford a broad assessment of a CAAPP sources compliance status. The CAAPP requires that these report be submitted on an annual basis, even if a source has complied with all requirements. These reports must be submitted by May 1 of the year immediately following the calendar year that is addressed by a report.

4.3 Discussions of Start-up and Malfunction/Breakdown

As related to state emissions standards under Illinois' State Implementation Plan (SIP), this CAAPP permit addresses excess emissions during startups or periods of malfunction or breakdown in a manner that is consistent with Illinois SIP. 35 IAC 201.149, which is part of Illinois' SIP, prohibits continued operation of an emission unit during malfunction or breakdown of the unit or associated air pollution control equipment, or startup of an emission unit or associated air pollution control equipment, if such operation would cause a violation of an applicable state emission standard or limitation absent express permit authorization.⁴¹

The provisions governing such permit authorizations are in 35 IAC Part 201 Subpart I, which is also part of Illinois' SIP. These provisions make clear that the process in Illinois for addressing compliance with state emission standards during malfunction/breakdown and startup is in two steps. The first step, as set forth at 35 IAC 201.261, consists of a source seeking authorization by means of a permit application to make a future claim of malfunction/breakdown or startup.⁴² Absent a request for authorization in a permit application, followed by express grant of such authorization in an issued permit, a source cannot make a claim of malfunction/breakdown or startup under Illinois rules in the event of a future exceedance of a state emission standard during such periods. These regulatory provisions are specifically recognized by the CAAPP, pursuant to Section 39.5(5)(s) of the Act.

The second step in Illinois' process related to excess emissions during malfunction/breakdown or startup, as addressed by 35 IAC 201.262, addresses the showing that a source must make for a viable claim of malfunction/breakdown or startup. For malfunction/breakdown, this showing consists of a demonstration that continued operation was necessary to prevent injury to persons or severe

⁴¹ 35 IAC 201.149 and 35 IAC Part 201 Subpart I only address violations of state emission standards and limitations, as found in 35 IAC Subtitle B: Air Pollution, Chapter I: Pollution Control Board, Subchapter c: Emission Standards and Limitations for Stationary Sources. "Subchapter c" includes Illinois emissions standards for various pollutants, including particulate emissions (35 IAC Part 212), sulfur dioxide emissions (35 IAC Part 214), and nitrogen oxide emissions (35 IAC Part 217).

⁴² Pursuant to 35 IAC 201.261, a request related to malfunction/breakdown should include an explanation of why continued operation is necessary; the anticipated nature, quantity and duration of emissions; and measures that will be taken to minimize the quantity and duration of emissions. A request related to startup should include a description of the startup procedure, duration, and frequencies of startups, type, and quantity of emissions during startups and efforts to minimize emissions, duration, and frequency.

damage to equipment, or was required to provide essential services. For startup, this showing consists of a demonstration that all reasonable efforts have been made to minimize emissions from the startup event, to minimize the duration of the event, and to minimize the frequency of such events. In some respects, this showing for startups may be evaluated based on past practice when considering whether a permit should provide authorization to make claims related to startup. However, this showing also continues to be relevant on an ongoing basis, like the showing required for malfunction/breakdown events, which may never actually occur. This is because the showing for startups also relates to future activities whose exact circumstances are not known.⁴³

For certain emission units at this source, malfunction and breakdown and/or startup authorization was sought under Illinois' rules. The application for a CAAPP permit contained, as applicable, completed Form 204-CAAPP, *Request To Continue To Operate During Malfunction and Breakdown*, and Form 203-CAAPP, *Request To Operate During Startup of Equipment*. This provided the relevant information specified by the applicable state rules.⁴⁴ The Illinois EPA reviewed these requests and granted authorization to the source in the CAAPP permit to make claims of malfunction and breakdown and/or startup, as appropriate. The issued CAAPP permit clearly sets forth the emission units, types of authorization provided (i.e., malfunction/breakdown and/or startup), and the requirements that have been imposed in conjunction with such authorizations.

These authorizations in the CAAPP permit do not equate to an "automatic exemption" from otherwise applicable state emission standards. The grant of these initial authorizations was fully consistent with long standing practice in Illinois for permitting and enforcement. Due to the nature of power plants and the inability to simply shutdown coal-fired boilers and the nature of the start-up of coal-fired boilers, excess emissions may occur during startup or malfunction and breakdown that the source cannot readily anticipate or reasonably avoid. However, as the source should be fully aware, it may be held accountable for any excess emissions that occur regardless of any authorization in the CAAPP permit related to malfunction and breakdown events and startup.

In summary, the provisions in the SIP and the CAAPP permit that delineate the elements for a viable claim of malfunction/breakdown or startup do not

⁴³ The approach taken by Illinois' rules can be distinguished from the historical approach taken by USEPA in the federal NESHAP rules, 40 CFR Part 63. USEPA generally addressed excess emissions during startup and malfunction of subject units without the initial step required by Illinois' rules. This is because sources were generally able to claim exclusion from an otherwise applicable standard during a malfunction event or during startup, as well as during shutdown, unless otherwise specifically precluded by the applicable NESHAP standard. The validity of such claims was then subject to scrutiny by USEPA and the state or local enforcement authority, as to the acceptability of a source's claim that an incident should qualify for an exemption. That is, that the excess emissions could not be readily prevented and were not contrary to good air pollution control practices, so that the excess emissions were in fact violations. In fact, this case-by-case scrutiny of excess emission is the second step that is provided for by Illinois' rules. However, exceedances of Illinois' emissions standards at 35 IAC Subtitle B Chapter I Subchapter c that are related to startup and malfunction/breakdown are governed by the approach in Illinois' SIP.

⁴⁴ For malfunction and breakdown of a unit, this information includes an explanation of why continued operation is necessary; the anticipated nature, quantity and duration of emissions; and measures that will be taken to minimize the quantity and duration of emissions. For startup, it is a description of the startup procedure for the unit, duration and frequencies of startups, type and quantity of emissions during startups, and efforts to minimize emissions, duration and frequency of startups.

translate into any advance determination related to actual occurrences of excess emissions. Rather, together they provide a framework whereby a source is provided with the ability to make a claim of malfunction/ breakdown or startup, with the viability of any such claim subject to specific review against the relevant requirements. In this regard, 35 IAC 201.265 clearly states that violating an applicable state standard even if consistent with any express authorization regarding malfunction/breakdown or startup in a permit shall only constitute a prima facie defense to an enforcement action for the violation of such standard. The provisions in the CAAPP permit related to malfunction and breakdown and startup do not provide any shield from state emission standards that may be violated during such events. Any excess emissions during these events would constitute violations and potentially be the subject of enforcement actions.

4.4 Discussion for Emissions of Greenhouse Gases

On June 3, 2010, USEPA adopted rules for the initial permitting of major sources of emissions of greenhouse gases (GHG).⁴⁵ This action was prompted by the earlier adoption of GHG emissions standards for motor vehicles under Title II of the federal Clean Air Act. CWLP's Annual Emission Reports for the Dallman Station confirm that it is a major source of GHG emissions.⁴⁶ Based on general knowledge, emission standards or other regulatory obligations relating to GHG currently do not exist as "applicable requirements" for this source. There are no GHG-related requirements under the Act or contained in Illinois' SIP that apply at this time. The source is not known to have implemented construction projects triggering such requirements as those projects constituted major modifications under the federal PSD rules. The source is also not obligated to address the mandatory reporting rule for GHG, promulgated by USEPA in 2009 [See generally, 40 CFR Part 98], as an applicable requirement under the CAAPP.⁴⁷

⁴⁵ The USEPA adopted a two-phase program for permitting of major sources of GHG under Title V permit programs. The first phase began on January 1, 2011 and applied to sources that were already subject to Title V independent of their GHG emissions. These sources must address GHG emissions in their permit applications and comply with any substantive requirements for GHG that have been established through other Clean Air Act programs such as PSD. In the second phase, which began on July 1, 2011, these obligations became applicable to sources that only became subject to Title V based only on their GHG emissions (i.e., existing or newly constructed sources with potential GHG emissions of at least 100,000 tons per year as CO₂e and 100 tons per year of GHG on a mass basis). See, 75 FR 31514-31608. See also generally, PSD and Title V Permitting Guidance for GHG at pages 53-56.

⁴⁶ This fact is noted here merely for informational purposes and does not form the basis of any proposed changes to the CAAPP permit.

⁴⁷ These observations are also made here merely for information and do provide the basis of any proposed changes to the permit.

ATTACHMENTS

Attachment 1: Planned Changes by Administrative Amendment⁴⁸

Introduction

Pursuant to Section 39.5(13) of the Act, the changes listed below are all administrative changes to the permit.⁴⁹ 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 source 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.

Cover Page - "Responsible Official":

The permit now includes CWLP's current responsible official.

Cover Page - 3rd Paragraph

The permit now indicates that any questions on the permit should be directed to the CAAPP unit.

Cover Page - Permit Section Manager

The permit now reflects the current manager of the Bureau of Air Permit Section.

Cover Page - IEPA Staff Initials

The initials of relevant Illinois EPA staff now reflect current staff.

Condition 1.3

The contact information now reflects the current contact for CWLP.

Condition 6.1.4(a)

A typographical error is corrected, with insertion of an apostrophe

Condition 7.1.1

The description of the boilers now correctly indicates that each boiler has its own SCR system.

Conditions 7.1.3(b), 7.2.3(b), 7.3.3(b) and 7.4.3(b)

The relevant rule is now correctly identified, 35 IAC 201.261 and not 35 IAC 201.161.

Conditions 7.1.3(b)(iii) and 7.2.3(b)(iii)

The cross-reference now refers to the correct condition, (f) instead of (g).

⁴⁸ Certain other changes to the initial CAAPP permit, specifically, changes that would require more frequent monitoring or reporting by CWLP, would arguably also constitute administrative amendments. However, based on discussions with USEPA Region V, the Illinois EPA has proceeded conservatively and is approaching these changes as minor or significant modifications.

⁴⁹ 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.

Conditions 7.1.3(c) and 7.2.3(c)

The relevant rule is now correctly identified, 35 IAC 201.261 and not 35 IAC 201.161.

Conditions 7.1.3(c)(iii) and 7.2.3(c)(iii)

The correct condition is now referenced, (g) instead of (h).

Condition 7.1.5(b)

Grammar was corrected to reflect the fact that the source was already conducting the required monitoring.

Conditions 7.1.9(a)(vi), (b) & (g), 7.2.9(a)(i), (b) & (g), 7.6.9(a), 7.7.9(a), (b) & (g), and 7.8.9(b)

The word "log" was changed to "record," to make terminology more acceptable to CWLP without any change to meaning or effect.

Condition 7.1.9(c) and (e)

Typographical errors were corrected.

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

The cross-reference was corrected, to Condition 7.1.9.

Conditions 7.1.10-2(b) and (c)

Grammar was corrected, by changing the verb tense.

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

This condition, which duplicated the preceding condition, has been removed.

Conditions 7.1.10-2(d)(iii)(G) and 7.2.10-2(d)(iii)(G)

The correct condition is now referenced, (g) instead of (h)

Condition 7.3.1

Dust collection devices are no longer mentioned because they are not present on the coal handling operations.

Condition 7.3.2

Changes were made to clarify that the source does not have duplicate coal handling equipment. This could previously have been inferred by the same listing of equipment appearing under each categorical group of units. The listing did not change, i.e., there are no other pieces of equipment at the source other than those identified. Also, equipment that is subject to the NSPS is identified.

Conditions 7.4.1 and 7.4.2

Dust collection devices are no longer mentioned because they are not present on the coal processing operations.

Condition 7.4.7(a)(i)

The origin and authority statement in this condition was corrected by also citing to the NSPS, 40 CFR 60 Subpart Y.

Conditions 7.6.1 and 7.6.2

Dust collection equipment is no longer mentioned because it is not present on the limestone and gypsum handling operations.

Condition 7.7.9(d)(ii)

This condition was deleted because it referred to Condition 5.6.2(d), which has been deleted.

Attachment 2: Planned Revisions to the Permit by Minor Modification

Introduction

Pursuant to Section 39.5(14)(a) of the Act, the planned changes listed below are all minor modifications.⁵⁰ Pursuant to Section 39.5(14)(a)(v) of the Act, the Illinois EPA may not issue a revised 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), the source may make the change proposed in its minor permit modification application immediately after it files such application. After the source makes the changes, and until the Illinois EPA takes final action, the source must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time period, the source need not comply with the existing permit terms and conditions that it seeks to modify. If the source fails to comply with its proposed permit terms and conditions during this period, the relevant existing permit terms and conditions which 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.⁵¹

Condition 5.5.1

The current maximum fee amount that CWLP must pay is no longer specified because the amount of the fee has changed.

Condition 5.6.2(b)

The condition was reworded with language that is substantially equivalent but more amenable to CWLP.

Condition 5.6.2(d)

This requirement was moved into Sections 7.3, 7.4, 7.5, and 7.6 of the permit, where it is applicable, for clarity. For example, the condition could otherwise

⁵⁰ 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.

⁵¹ It should be noted that the Illinois EPA did identify other changes to the initial CAAPP permit for the source that would arguably also be minor modifications, specifically, changes relating to reporting and recordkeeping. However, based on discussions with USEPA, a more conservative approach has been taken, addressing those changes as significant modifications to the permit.

have been construed as applying to the coal-fired boilers in Sections 7.1 and 7.2, which have no "control measures," as this term is used relative to this requirement.

Condition 7.1.5(a)(iii) and 7.2.5(a)(i)

The reference to the coal pulverizer was removed because Section 7.1 and 7.2 of the permit covers boilers and the coal pulverizer is covered in Section 7.4.

Condition 7.1.5(b)

The condition was revised to enhance the language that the source is conducting monitoring in accordance with the NSPS and the Acid Rain program. It should be noted that this condition does not make the boilers subject to the NSPS.

Conditions 7.1.7(a)(ii) and 7.2.7(a)(ii)

This condition was revised for clarification and accuracy. The condition in the initial permit was not appropriately tailored to these particular boilers, so would not have had the intended effect.

Conditions 7.1.7(e)(v) and 7.2.7(e)(v)

This condition was revised to include the hourly opacity averages measured during testing.

Condition 7.1.10-2(d)(iii) - Note

The condition was revised to clarify that Dallman Boilers 31 and 32 are not subject to the NSPS even though the source is conducting reporting for these boilers in accordance with the NSPS and the Acid Rain program.

Conditions 7.1.10-3(b) and 7.2.10-3(b)

The condition was added to reporting requirements for startup consistent with the additions to 7.1.9(f) and 7.2.9(f).

Condition 7.3.4(c)

The condition was revised to identify the operations that are subject to NSPS Subpart Y, Coal Preparation Plants.

Conditions 7.3.6(a)(i), 7.4.6(a)(i), and 7.6.6(a)(i)

The condition has been reworded based on the changes in Condition 5.6.2(d) and is now more amenable to CWLP. The substance of the condition did not change. The condition was also revised to create a definition for "established control measures" to provide clarity and enhance practical enforceability.

Conditions 7.3.7(a)(i), 7.4.7(a)(i), 7.5.7(a)(i), and 7.6.7(a)(i)

The phrase "representative weather conditions" was removed to avoid a potential conflict between the language of the permit and Method 9 with respect to the performance of opacity observations. These observations must be conducted using Method 9, which specifies acceptable weather conditions during which such observations can be conducted. The phrase during "representative weather conditions" in the condition could potentially be construed to require opacity observations be made during weather conditions that would be inconsistent with use of Method 9.

Conditions 7.3.7(a)(i)(A), 7.4.7(a)(i)(A), 7.5.7(a)(i)(A), and 7.6.7(a)(i)(A)

These conditions were revised to make clear what kind of emissions needed to be tested and to fix a typographical error where Method 22 is mentioned twice in the same condition. Also, due to length of the appeal process, initial testing has already been conducted so that requirement was deleted. However, the requirement to test annually has not been changed.

Conditions 7.3.8(a), 7.4.8(a), and 7.6.8(a)

These condition in the initial permit contained inspection requirements for the dust collection equipment on various units at the source. Settlement discussions revealed that, in fact, such equipment is not present. Accordingly, the requirement of this condition, to inspect non-existent equipment, has been removed. In addition, CWLP appealed the inspection requirements on the grounds that these inspections should be overseen by qualified personnel who possess the requisite knowledge to conduct detailed inspections in a safe manner.

Conditions 7.3.8(b), 7.4.8(b), and 7.6.8(b)

These conditions were deleted because the subject units do not have any dust collection equipment and replaced with language that is more appropriate.

Conditions 7.3.9(a) and (b)

These conditions have been revised because the subject units do not have any dust collection equipment.

Condition 7.3.9(d)(ii)

This condition requiring specific list of records for dust collection equipment was deleted because there is no such equipment on the subject units.

Condition 7.3.9(e)(ii)

This condition was duplicative and was deleted. This condition required that records of excess PM emissions that occur during periods when "control measures were not functioning properly" be maintained, i.e., during malfunctions. Excess emissions during malfunctions are "deviations" and records are already required to be maintained and reported pursuant to Condition 7.3.10.

Condition 7.4.7(b)

The condition was deleted because the subject units do not have dust collection equipment.

Condition 7.4.9(a)

Condition 7.4.9(a) addressed monitoring requirements for dust collection equipment. As discussed above, dust collection equipment is not present on the subject units.

Condition 7.4.9(a)(ii)

Additional recordkeeping for established control methods during malfunction/breakdown based on changes mentioned above.

Condition 7.4.9(b)

The condition has been reworded based on the changes discussed for Condition 5.6.2(d) above.

Condition 7.4.9(c)(ii) and 7.6.9(c)(ii)

The condition was deleted because it referred to requirements for dust collection equipment that is not present on the subject units.

Condition 7.4.9(d) and 7.6.9(d)

The condition requiring specific list of records was deleted to remove duplicative records after removing the requirements for control devices because the source has none on these processes.

Condition 7.5.8(a)

The condition now provides that the periodic inspections that are required for this equipment must be overseen by supervisory or management personnel, rather than simply providing that these inspections must be performed by personnel not directly involved in day-to-day operation of this equipment.

Conditions 7.6.9(a) and (b)

The conditions were revised to remove references to collection devices because the subject operation is not equipped with such devices and be consistent with the changes above.

Condition 7.6.9(a)(ii)

Additional recordkeeping for established control methods during malfunction/breakdown based on changes mentioned above.