

Illinois Environmental Protection Agency
Bureau of Air
Permit Section
October 15, 2015

Responsiveness Summary for the
Significant Modification of the
Clean Air Act Permit Program (CAAPP) Permit Issued to
Illinois Power Generating Company for the
Newton Energy Center
Newton, Illinois

Source I.D. No.: 079808AAA
Permit No.: 95090066

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A. DECISION

On November 19, 2015, the Illinois EPA issued a modified Clean Air Act Permit Program (CAAPP) permit to Illinois Power Generating Company (Illinois Power) for the Newton Energy Center.

B. BACKGROUND

The Newton Energy Center is a coal-fired electric power plant owned and operated by Illinois Power. The plant has two coal-fired boilers that produce steam that is then used to generate electricity. Newton Energy Center qualifies as a major source of emissions under Illinois' Clean Air Act Permit Program (CAAPP).

The CAAPP is Illinois' operating permit program for sources of emissions pursuant to Title V of the federal Clean Air Act. The CAAPP is administered by the Illinois EPA. It generally requires that the owner or operator of a major stationary source of emissions in Illinois apply for and obtain a CAAPP permit for the operation of such source. CAAPP permits contain conditions identifying applicable air pollution control requirements under the federal Clean Air Act and Illinois' Environmental Protection Act (Act). Compliance procedures, including testing, monitoring, recordkeeping and reporting requirements, are also established as required or necessary to assure compliance and accomplish the purposes of the CAAPP. The conditions of a CAAPP permit are enforceable by the Illinois EPA, USEPA and the public.

The Illinois EPA issued the initial CAAPP permit for Newton Energy Center on September 29, 2005. The source appealed this permit to Illinois' Pollution Control Board (Board), contending that a number of conditions in the permit were erroneous or unwarranted. On February 16, 2006, the Board accepted the source's petition for appeal and granted an administrative stay of the issued CAAPP permit in its entirety.

The source and the Illinois EPA, with the assistance of the Office of the Illinois Attorney General, have successfully undertaken discussions to resolve or settle this appeal. There are three steps in the process for the settlement of the appeal that have been agreed to by the Illinois EPA and Illinois Power.

The initial step to achieving the goal of having the Newton Energy Center addressed by and subject to an appropriate CAAPP permit was initiated with the notice of the draft revised permit for public comment and opportunity for hearing, followed by USEPA 45-day review. The implementation of these procedures, which are reflected in the CAAPP's requirements for a significant permit modification, must be fulfilled in order to resolve, consistent with the terms of the parties' settlement, the more substantive appeal points raised in the administrative appeal. Minor points of the appeal are being addressed in parallel permit proceedings, as discussed below. The Statement of Basis supports the planned permitting action for those challenged

conditions of the CAAPP permit that can be appropriately addressed using the significant modifications procedures of the CAAPP.

The second step will be completed following completion of procedures addressed in the initial step but prior to actual issuance of a revised CAAPP permit. The Illinois Attorney General and Illinois Power intend to file a joint motion with the Illinois Pollution Control Board (Board) requesting that the administrative stay be partially lifted to allow for modification of the initial CAAPP permit. The joint motion will also include a request for remand of the permit to the Illinois EPA so that it can be dated to reflect a full five-year term, as required under the CAAPP. Contemporaneous with the dating of the initial CAAPP permit, the Illinois EPA will issue the significant modification of the permit and parallel administrative and minor modifications of the permit. Illinois Power can subsequently seek dismissal of its appeal by the Board.

Because a significant modification of this CAAPP permit triggered the applicable requirements of USEPA's rules for Compliance Assurance Monitoring (CAM), 40 CFR Part 64, the source submitted the information required by these rules, including a "Compliance Assurance Monitoring Plan" (CAM Plan) for Newton Energy Center for emissions of particulate matter (PM). Along with the modifications to the initial CAAPP permit that were made as part of resolution of the appeal, other appropriate conditions have been added in the modified permit to address CAM.

The third step in the settlement of the appeal is the formal reopening of the CAAPP permit for Newton Energy Center using the procedures for reopening of CAAPP permits. In this step, new requirements that have been adopted under the Clean Air Act since the original permit was issued, which are now applicable to Newton Energy Center, will be added into the permit.¹

C. OPPORTUNITY FOR PUBLIC COMMENTS

The issuance of this modified permit was preceded by a public comment period, in accordance with Section 39.5(8) of the Act and 35 IAC Part 252. A draft of the modified permit and the accompanying Statement of Basis prepared by the Illinois EPA were available at the Illinois EPA's offices in Collinsville and Springfield for review by the public. This comment period began on February 25, 2015. A public hearing was not requested during the public comment period. The comment period ended on March 27, 2015.

During this comment period, a public inquiry resulted in the reconsideration, by Illinois EPA, of planned changes to Condition 7.1.9(c)(ii)(B) of the draft revised CAAPP permit for Newton Energy Center. This condition involved Periodic Monitoring for the emissions of particulate matter (PM) from the coal-fired boilers at the Newton

¹ New applicable requirements for Newton Energy Center will include, but not be limited to, newly adopted rules such as the Cross State Air Pollution Rule (CSAPR) and the Mercury and Air Toxics Standards (MATS), any issued construction permits and other requirements as determined at the time of the reopening to be applicable requirements.

Energy Center. The reconsideration was necessary because the basis for the planned changes to this condition was not accurately reflected in the Statement of Basis.² Details regarding this reconsideration were provided in a Supplemented Statement of Basis. No further changes to conditions in the draft revised CAAPP permit were necessary as a result of the reconsideration, however, the Illinois EPA reopened the comment period to allow the public to provide comments. The comment period for the reconsideration ended on June 14, 2015.

Written comments regarding the modified permit were submitted jointly on March 27, 2015 by the Environmental Law and Policy Center and Natural Resources Defense Council (Public Comments). The USEPA also submitted formal comments on March 12, 2015. These comments and the Illinois EPA responses to these comments are provided later in this document. No written comments regarding reconsideration of Condition 7.1.9(c)(ii)(B) were submitted to the Illinois EPA.

D. AVAILABILITY OF DOCUMENTS

Copies of this responsiveness summary and the revised CAAPP permit that has been issued are being made available for viewing by the public at the Illinois EPA's Headquarters at 1021 North Grand Avenue East in Springfield and at the Illinois EPA Regional Office at 2125 South First St in Champaign, IL.

Copies are also available electronically at www.epa.illinois.gov/public-notice and www.epa.gov/region5/air/permits/ilonline.html. Printed copies of these documents are also available free of charge by contacting Brad Frost at the Illinois EPA's Office of Community Relations by telephone (888/372-1996 - Toll Free Environmental Helpline; 217/782-7027 - desk line; or 217/782-9143 - TDD), by facsimile (217/524-5023) or by email to Brad.Frost@illinois.gov.

E. WRITTEN COMMENTS WITH RESPONSES BY THE ILLINOIS EPA

Comment I (page 2) - Procedural Flaw

There are serious deficiencies with the process that the Illinois EPA has undertaken to issue a legally functional CAAPP permits for the Newton Energy Center. In this case, Illinois EPA is proposing to put into place until 2020 a CAAPP permit that omits many legally applicable requirements, based on an application submitted almost *twenty years ago* and an initial permit that should have expired in 2010, five years after it was first issued. This has left unacceptable gaps in the permit's conditions. The Statement of Basis notes that the USEPA expressed concern in a similar CAAPP permit appeal that

² The Statement of Basis incorrectly indicated that current PM and opacity testing for the coal boilers at the Newton Energy Center was the basis for the value of opacity that is planned to be included in revised Condition 7.1.9(c)(ii)(B). However, such testing to evaluate the relationship between PM emissions and levels of opacity was not available for the Newton Energy Center.

Illinois EPA's stated intent to reopen the permit "lacks a sufficiently enforceable commitment."

I share USEPA's concern. Illinois EPA's statement that it "considers the reopening provision to constitute an unambiguous statutory duty on the part of [Illinois EPA] that is fully enforceable under the CAAPP" addresses but does not fully resolve that concern. The Illinois EPA has, to date, finalized significant modifications to Title V permits for three Illinois coal-fired power plants – the Coffeen Energy Center, CWLP plant and the Kincaid Energy Center – that, like the Newton Energy Center CAAPP permit, had been stayed before the Board since 2006. Illinois EPA has not yet completed the promised process of permit reopening for any of those permits. Illinois EPA's implementation of the Title V program for the State's coal-fired power plants remains seriously deficient. A more appropriate process for the Newton Energy Center would have been a full-scale permit renewal. A permit renewal would have been more consistent with and supported by the Illinois SIP and the timelines provided by Title V of the Clean Air Act.

Response: The Illinois EPA's objective in this permitting action has been to achieve permit effectiveness and resolve the related CAAPP permit appeal involving the Newton Energy Center. The legal process for doing so is set forth in CAAPP's procedures, which the Illinois EPA is obligated to follow. The Illinois EPA disagrees that there are deficiencies with the process set forth in the applicable laws and rules. However, if any such deficiencies with the process exist, it is a product of the statutory and/or regulatory framework of the CAAPP permitting program, which largely derives from the Clean Air Act and federal regulations implementing the same, and cannot be cured by way of this permitting action.

As explained in the Statement of Basis that accompanied the draft revise CAAPP permit, the Illinois EPA did exercise limited discretion in choosing between the procedures available under CAAPP to accomplish the goals identified above. To be more specific, the Illinois EPA declined to initiate a comprehensive review of the initial CAAPP permit, as doing so would have delayed resolution of the appeals and prolonged the period during which the Newton Energy Center would continue to operate without an effective CAAPP permit.³ It would also have been repetitious for a large body of the permit that was not challenged in the appeal. The Illinois EPA quickly concluded that the permit renewal process, as suggested by the comment, would not be viable. Permit renewal is not a legal option in the present circumstances, as this process is applicable after an initial CAAPP permit has been issued and takes effect.⁴

³ The procedure that has been followed has produced an effective CAAPP permit for the Newton Energy Center. This would still not have occurred if a "renewal" had been pursued as suggested by this comment.

⁴ As a result of the stay of the initial CAAPP permit, the initial CAAPP permit did not become effective necessitating the procedures used by the Illinois EPA.

The Illinois EPA opted instead to use the CAAPP's modification procedures to make the CAAPP permit for the Newton Energy Center effective and to resolve the related appeal. This decision reflected a considered judgment of the Illinois EPA and Attorney General's Office. Further, in recognizing that the initial, 2005 permit does not currently reflect recent regulatory developments, the Illinois EPA has committed to reopen the permit to incorporate Clean Air Act requirements that have become applicable to the source since 2005 when the permit was issued.⁵ Although those requirements have been and will continue to be independently enforceable, the permit reopening that will include those requirements in the CAAPP permit responds to the concern expressed by this comment regarding perceived gaps in the CAAPP permit.

Comment III - The Proposed CAM Plan is Inadequate to Assure Compliance.

The Newton Energy Center's has two coal-fired boilers, Boilers 1 and 2. Condition 7.1.4(b) subjects these boilers to an hourly average particulate matter ("PM") emission limit of 0.10 lbs/mmBtu of actual heat input. This is the limit from 35 IAC 212.204, which is included in the Illinois' State Implementation Plan ("SIP").

As noted in the Statement of Basis, the CAM rule in 40 CFR Part 64 is applicable to the boilers' PM emissions due to the source's submission of an application for significant modification of conditions related to the Boilers. (citing 40 CFR 64.5(a)(2)). The proposed Significant Modification includes a new Condition 7.1.13-1, which includes Illinois EPA's conditional approval of a CAM plan proposed by Illinois Power and set out in Table 7.1.13. The proposed CAM plan would require monitoring of the operation of one PM control device: the Newton Energy Center's electrostatic precipitator ("ESP") on the boiler. (See Table 7.1.13) ("Opacity less than [*]% averaged over a 3 hour block period is an indicator of proper ESP operation and provides reasonable assurance of meeting the 0.10 lbs/mmBtu PM limit.").

The sole proposed indicator for the proper operation of the ESP is the opacity in the flue gas stream in the stacks for Boiler 1 and 2. The opacity of the flue gas stream is measured by a continuous opacity monitoring system ("COMS") installed in the stack. Illinois EPA proposes that the indicator range, in order to provide a reasonable assurance of compliance, be based on the percentage of opacity measured by the COMS, averaged over three-hour block periods. The proposed plan does not specify the percentage of opacity that would trigger responsive actions for the Boilers, but instead requires Illinois Power to perform "PM emissions testing" within 120 days of the issuance of the permit, and then submit an application for a proposed modification "to incorporate information for the opacity

⁵ Condition 5.9 of the revised CAAPP permit provides that the "The Permittee shall promptly submit information to assist the Illinois EPA in a reopening of the CAAPP permit in accordance with Section 39.5(15) (a) (i) of the Act and 35 IAC 270.503(a) (1)..."

derived from testing." (Conditions 7.1.13-1(a), (b)(1) and (b)(2)). The permit does not specify how opacity is to be correlated with PM emissions, though. According to the Statement of Basis:

[T]esting for PM emissions will be conducted to determine appropriate indicator ranges for assuring compliance with the PM emissions limit under various operating conditions for the boilers. Testing will determine the upper limit of opacity, as measured in the flue gas stream, which assures compliance with the PM limit.

There are two central problems with the CAM plan's proposed approach to monitoring the operation of the Newton Energy Center's ESPs. First, the CAM plan does not reflect an acceptable procedure for setting an opacity indicator range to assure proper operation of the ESP. Second, the CAM plan does not include monitoring of any other parameters of ESP performance.

Response: The CAM Plan submitted by Illinois Power satisfies the criteria and requirements in 40 CFR 64.3 for the plan to be "conditionally" approved in accordance with 40 CFR 64.6(b). In particular, these comments do not demonstrate the parameter chosen (opacity) and the future establishment of a corresponding indicator range fails to fulfill the criteria in 40 CFR 64.3(a) for CAM Plans. In addition, the comment does not show that the CAM Plan submitted by Illinois Power for the coal-fired boilers at the Newton Energy Center is not "conditionally approvable."

Comment III - (2nd para.)

Additionally, the Illinois SIP provides that a unit's violation of its opacity limit also constitutes a presumptive violation of its PM limit. Pursuant to 35 IAC 212.124(d)(2)(A), violations of the opacity limits in 35 IAC 212.122 and 212.123 "shall constitute a violation of the applicable particulate limitations" in the SIP, unless the owner or operator submits contemporaneous performance testing results "under the same operating conditions for the unit and the control devices" showing that the unit complied with its PM limit.

Response: The observations in this comment are not relevant to the compliance time period of either the opacity or PM emission standard that is applicable to the coal-fired boilers at the Newton Energy Center. As 35 IAC 212.109 provides that observations of opacity by a human observer are to be made in accordance with USEPA Method 9, the compliance period for the opacity standard in 35 IAC 212.123(a) is a 6-minute average. Arguably, the compliance period for the alternative opacity standard in 35 IAC 212.123(b) is 24 hours, as 24 hours of opacity data may be needed to determine compliance with this standard.⁶

⁶ Theoretically, the terms of 35 IAC 212.123(b) could allow average opacity from an emissions unit over a 24 hour period to be as high as 30.5 percent. [(3 x 8 minutes x 60% opacity) + (1,416

Certainly, neither standard applies on a 12-minute average as suggested by this comment. Moreover given the disparity in compliance periods, it is unclear how an exceedance of either of these opacity standards would necessarily constitute credible evidence of a violation of a PM standard for which the duration of emission testing to measure PM emissions is nominally three hours.

Comment III.A.1

The CAM Plan Does Not Contain An Acceptable Procedure for Setting an Opacity Indicator.

To issue a legally sufficient CAM plan, Illinois EPA "must explain how the indicator range in the CAM plan provides a reasonable assurance of ongoing compliance with the underlying PM limits in accordance with 40 CFR 64.3(a)(2)." *In the Matter of WE Energies Oak Creek Power Plant*, EPA Administrator Order at 18 (June 12, 2009). The permit record here contains no such explanation, and no clear description of how the opacity indicator range will be derived. What is clear, though, is that the range would be based on three-hour block averages. This is inconsistent with the underlying PM limit, which has a one-hour averaging period. The CAM plan must include a procedure for setting an opacity indicator range that will yield a range reflecting the proper operation and maintenance of the ESPs, with an ample margin of compliance with the hourly PM emission limit.

At most, the Statement of Basis only implies that acceptable opacity ranges will extend to "the upper limits of opacity . . . which assures compliance with the PM limit." This approach does not comport with the CAM rule. The CAM rule is *not* premised on identifying and selecting the most extreme indicator range under which a source can avoid violating an emission limit. Instead, the CAM rule provides that indicator ranges "shall reflect the proper operation and maintenance of the control device (and associated capture system), in accordance with applicable design properties, for minimizing emissions over the anticipated range of operation conditions at least to the level required to achieve compliance with the applicable requirements." 40 CFR 64.3(a)(2). The basic approach of the CAM rule is to determine what parametric indicator ranges reflect the proper operation and maintenance of the relevant pollution control device, and to make sure

minutes x 30% opacity)] ÷ 1440 minutes = 30.5% opacity). In this regard, 35 IAC 212.123(b) provides that:

The emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 m (1000 ft) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period. [Emphasis added]

that the permittee promptly addresses any deviation from those ranges with responsive actions. In this manner, compliance with the associated emission limit is assured because operational problems that otherwise would cause violations are promptly corrected. By contrast, requiring responsive action only if there is an exceedance of the "upper limit of opacity" at which one can be sure that there is no PM violation is not in line with the CAM rule's purpose, and would not yield responsive action until a violation likely already had occurred.

Describing indicator ranges generally, USEPA has stated that selected ranges "should be indicative of the normal operating range under good operation and maintenance practices". USEPA, *Technical Guidance Document: Compliance Assurance Monitoring, Revised Draft* (Aug. 1998), at 2-27. As USEPA recognized in the preamble to the CAM rule, this approach can lead to the setting of indicator ranges well below the "upper limit" of the indicator that would assure compliance with the monitored emission limit:

The Agency understands that many sources operate well within permitted limits over a range of process and pollution control device operating parameters. Depending on the nature of pollution control devices installed and the specific compliance strategy adopted by the source or the permitting authority, part 64 indicator ranges may be established that generally represent emission levels *significantly below* the applicable underlying emission limit.

62 FR 54,907 (emphasis added).

USEPA also has directly addressed the issue of setting opacity indicator ranges in CAM plans designed to assure compliance with PM emission limits at coal-fired power plants, making clear that a margin of compliance is necessary in setting an opacity indicator range. USEPA, *Compliance Assurance Monitoring (CAM) Protocol for an Electrostatic Precipitator (ESP) Controlling Particulate Matter (PM) Emissions from a Coal-Fired Boiler, Proposed* (Apr. 2003) ("ESP CAM Protocol"). The ESP CAM Protocol provides:

You will establish the opacity indicator range at a level equal to or less than an opacity at which the source has demonstrated a margin of compliance with the PM emissions limit of at least 10 percent at normal operating conditions *You should not select an opacity higher than the maximum opacity you observed during the calibration test program.*

In sum, setting an opacity range based upon the highest opacity range that could assure compliance with the applicable PM emission limit is inconsistent with the CAM rule's requirement to also assure the

"proper operation and maintenance" of the control device. 40 CFR 64.3(a)(2)

An additional consideration in setting an opacity indicator range for the coal-fired boilers at the Newton Energy Center is that the upper bound should be well below the Plant's opacity limit of 20 percent which, under the Illinois State Implementation Plan ("SIP"), is presumed to signal a violation of applicable PM emission limits. As USEPA noted in the preamble to the CAM rule,

opacity standards are often established at a level which represents a likely significant exceedance of the particulate matter standard. In those circumstances, an opacity level below a required opacity standard would be more appropriate as a CAM indicator.

62 FR 54,923.

As such, the opacity indicator range for the Newton Energy Center should be set well below the Plant's opacity limit of 20 percent. See Condition 5.2.2(b).

The opacity indicator range also should be based on opacity averaged over no longer than a one-hour period. The CAM rule provides that a CAM monitoring program must "[a]llow for reporting of exceedances (or excursions if applicable to a COMS used to assure compliance with a particulate matter standard), consistent with any period for reporting of exceedances in an underlying requirement." 40 CFR 64.3(d)(3)(i). In this case, the Illinois SIP provides that the applicable averaging period in the underlying PM emission limit is hourly. 35 IAC 212.204. Therefore, the CAM plan must allow for reporting of opacity excursions on an hourly basis. Measuring opacity over a three-hour averaging period cannot assure compliance with an hourly standard.

Accordingly, Illinois EPA must revise the CAM plan to set out a method that will yield an hourly opacity indicator range that reflects proper operation and maintenance of the ESP, including an ample of margin of compliance from the PM emission limit.

Response: The Illinois EPA disagrees with the points raised in this comment. 40 CFR 64.3(d)(1) provides that if a continuous opacity monitoring system is required for a subject unit by other rules, such system shall be used to satisfy the requirements of 40 CFR Part 64. While limits or standards for opacity commonly address average opacity over a period of six minutes, based on a number of individual measurements or readings during such period, opacity can also be determined for shorter or longer periods, including on an three-hour average, as proposed by Illinois Power in its CAM Plan for the coal-fired boilers at the Newton Energy Center. Analysis of test data for

PM emissions and opacity data for other comparable coal-fired boilers in Illinois shows that compliance with a PM limit of 0.1 lbs/mmBtu, as applicable pursuant to 35 IAC 212.204, is reasonably assured if the opacity on a three-hour average is no more than 20 percent. This does not mean that opacity greater than 20 percent, three-hour average, indicates that an exceedance of the PM standard would be likely. The CAM Rule does not require that a value or indicator range be determined that would be indicative of a definitive violation of the applicable standard.

For state emission standards for which stack testing must be conducted to measure emission rates and verify compliance, it is reasonable that the nominal duration of such stack tests be used as the compliance period or averaging time over which compliance with such standard is determined. This is because the PM emission rate can only be measured with a reasonable degree of confidence by a stack test. Since a stack test to verify compliance with 35 IAC 212.204 generally consists of three runs, as provided for by 35 IAC 283.210,⁷ and each run nominally lasts one hour, the compliance period for 35 IAC 212.204 in actual practice is three hours.

Finally, USEPA did not state as a general matter that any approved indicator range should not exceed the maximum opacity observed during performance testing. USEPA made this statement in the specific context of its ESP CAM Protocol. This Protocol would rely on a computer model to calculate the PM control efficiency for the ESP. This protocol actually states (as quoted in the comment) that the opacity indicator that would trigger the use of the computer model should not exceed the value that was used during the calibration of the computer model. This would be appropriate as the computer model would not be developed to address higher levels of opacity, for which the model would not be calibrated.

Moreover, a more careful reading of USEPA's preamble for the adoption of the CAM Rule shows that USEPA determined that the CAM Rule will act to support or facilitate the proper operation and maintenance of emission units and their control devices by sources. This is because the CAM Rule requires that indicator ranges be established that provide a reasonable assurance of compliance with the applicable emission limitations or standards.⁸ It is relevant that USEPA focuses

⁷ Similar provisions for averaging of test results are found in federal rules, see 40 CFR 60.7(f) and 40 CFR 63.7(e)(3).

⁸ As explained by USEPA in the preamble to the adoption of the CAM Rule, "These examples point to the underlying assumption that there is a reasonable assurance of compliance with emission limits so long as the emission unit is operated under the conditions anticipated and the control equipment that has been proven capable of complying continues to be operated and maintained properly. In most cases, this relationship can be shown to exist through the performance testing without additional site-specific correlation of operational indicators with actual emission values. The monitoring design criteria in Sec. 64.3(a) build on this fundamental premise of the regulatory structure.

Thus, Sec. 64.3(a) states that units with control devices must meet certain general monitoring design criteria in order to provide a reasonable assurance of compliance with emission limitations or standards for the anticipated range of operations at a pollutant-specific emissions unit. These criteria mandate the monitoring of one or more indicators of the performance of the applicable control device, associated capture system, and/or any processes significant to achieving compliance. The owner or operator shall establish appropriate ranges or

upon the demonstration of compliance made for an emission unit without any mention of "proper operation and maintenance" of control devices. As specifically related to the establishment of indicator ranges for purposes of CAM, USEPA stated the following:

...the presumptive approach for establishing indicator ranges in part 64 is to establish the ranges in the context of performance testing. To assure that conditions represented by performance testing are also generally representative of anticipated operating conditions, a performance test should be conducted under conditions specified by the applicable rule or, if not specified, generally under conditions representative of maximum emission potential under anticipated operating conditions. In addition, the rule allows for adjusting the baseline values recorded during a performance test to account for the inappropriateness of requiring that indicator conditions stay exactly the same as during a test. The use of operational data collected during performance testing is a key element in establishing indicator ranges; however, other relevant information in establishing indicator ranges would be engineering assessments, historical data, and vendor data. Indicator ranges do not need to be correlated across the whole range of potential emissions.

62 FR 54,926 (Oct. 22, 1997)

In addition, with respect to indicator ranges and proper operation and maintenance, the CAM Rule only provides that:

...Such range(s) or conditions(s) shall reflect the proper operation and maintenance of the control device (and associated capture system), in accordance with applicable design properties, for minimizing emissions over the anticipated range of operation conditions at least to the level required to achieve compliance with the applicable requirements. ...

40 CFR 64.3(a)(2)

Comment III.A.2 - The CAM Plan Should Include Additional Parametric Monitoring of the ESPs.

Illinois EPA incorrectly asserted in the Statement of Basis that test data was used to establish some of the opacity parameters in the permit.⁹). The Statement of Basis asserted that in establishing an opacity value that would trigger recordkeeping requirements, Illinois

designated conditions for the selected indicators such that operating within the established ranges will provide a reasonable assurance of compliance for the anticipated range of operating conditions. The requirement to establish an indicator range provides the objective screening measure to indicate proper operation and maintenance of the emissions unit and the control technology, i.e., operation and maintenance such that there is a reasonable assurance of compliance with emission limitations or standards." [62 FR 54918 (Oct. 22, 1997)]

⁹ See email from Brad Frost, Office of Community Relations, Illinois EPA, to Andrew Armstrong, Staff Attorney, ELPC, March 20, 2015.

EPA relied on prior test data. This test data, according to Illinois EPA originally, supposedly confirmed that PM compliance could be assured when opacity was below 20 percent. *Id.* After publication of the Statement of Basis, however, Illinois EPA stated that “no such data from [the Newton Energy Center] was available to support the selection of an opacity value for purposes of periodic monitoring of the affected boilers.” (See Exhibit B). In other words, contrary to its prior assertion, Illinois EPA does not have any data from the Newton Energy Center that establishes a reliable correlation between PM and opacity for purposes of monitoring at the Plant. Illinois EPA therefore lacks any foundation to assert that opacity alone is a sufficient basis for a PM CAM plan.

Response: This comment is correct that site specific test data for PM emissions from the Newton Energy Center was not available to support the basis for planned changes to Condition 7.1.9(c)(ii)(B) of the draft revised CAAPP permit for Newton Energy Center. This comment resulted in Illinois EPA’s reconsideration of these planned changes to the permit. During the reconsideration, the Illinois EPA concluded that no additional changes to the permit were necessary based on review of test data from other comparable coal-fired boilers in Illinois. Illinois EPA reopened the comment period to allow the public to provide comments on this reconsideration. The second comment period ended on June 14, 2015 and no additional public comments were received during this comment period regarding the reconsideration and use of comparable test data from other Illinois power plants. Refer to the Supplemental Statement of Basis dated April 14, 2015 for additional details on this reconsideration.

Comment III.A.2 – The CAM Plan Should Include Additional Parametric Monitoring of the ESPs (continued).

Furthermore, in the ESP CAM Protocol, USEPA described the difficulties of using opacity as an indicator for PM emissions, in general, due to the lack of a linear relationship between opacity and PM:

[O]pacity, a commonly used parameter, can indicate ESP performance. If the opacity is increasing, you can reasonably assume that PM emissions are increasing. What generally is not known on a quantitative basis is the magnitude of the mass emissions relative to any one opacity value or the increase in mass emissions relative to the increase in opacity. In addition, and perhaps most importantly, the relationship between opacity and mass emissions can vary significantly with the particle size distribution and refractive index of the ash particles. The properties of the particulate matter can be influenced by fuel changes and the number and location of ESP electrical sections in

service.

Because the relationship between opacity and PM "is not robust overall operating conditions," USEPA's monitoring protocol for CAM plans at coal plants provides that monitoring opacity alone is not sufficient. Instead, USEPA's "presumptively acceptable" approach, see 40 CFR 64.4(b)(5), provides that the source also should monitor other ESP operating parameters—specifically, voltage and current for each ESP field—and run a calibrated computer model to calculate ESP efficiency when the opacity excursion level is triggered. See also USEPA, *CAM Technical Guidance Document*, App. A.25, *Electrostatic Precipitator (ESP) For PM Control—Facility FF* (June 2002), at A.25-2 (model CAM plan providing that "ESP secondary voltage and current are measured for each field to determine the total power to each ESP"). In order to assure proper operation and maintenance of the Newton Energy Center's ESP, Illinois EPA also should require parametric monitoring of voltage and current for each ESP field.

Response: Given these provisions of the CAM rules, it was wholly appropriate for Illinois Power to have selected opacity as the sole indicator related to the ESPs on the boilers. The fact that they did not include a second parameter (e.g., "corona power" or current) in its CAM plan does not show that the plan should be found unacceptable. The basic criterion for an acceptable CAM Plan, as specified by 40 CFR 64.3(a), is that the plan will provide "a reasonable assurance of compliance" with the applicable standard or emission limitation. The plan submitted by Illinois Power meets this criterion. Therefore, inclusion of additional indicators in the CAM Plan is not justified at this time given the relevant criterion has been satisfied.

This comment does not show that the CAM Plan should include additional indicators for ESP performance. The comment points to USEPA guidance suggesting that the CAM Plan should also address voltage and current for each ESP field. Thus, the addition of corona power is not supported by the comment.

In addition, the comment goes on to state that because of the lack of a linear relationship between opacity and PM, there is not a "robust" correlation over all operating conditions and thus additional monitoring of other ESP parameters must be included in the Plan. Particularly, the comment relies on 1) a statement in USEPA guidance regarding the inadequacy of opacity alone, 2) presumptively acceptable monitoring in 40 CFR 64.4(b)(5) and 3) an example in the US EPA CAM Technical Guidance document. Each of these points is not sufficient either alone or in combination to justify the addition of a second parameter to the CAM Plan.

With regard to the ESP CAM Example, USEPA clearly indicates in the CAM Technical Guidance Document, Appendix A, that the examples of approaches to CAM that are attached to that document are merely

examples and are not prescriptive.¹⁰ As such, the use of corona power in the ESP CAM Example as another indicator for performance of an ESP does not mean that opacity, alone, is not acceptable in a CAM plan. Thus, the ESP CAM Example does not address an appropriate approach to CAM for the ESPs on the Newton Energy Center boilers, for which continuous opacity monitoring is required. In fact, the "proposed" ESP CAM Protocol referenced in the comment actually suggests just the opposite as it states that "...for any given ESP and boiler, opacity can serve as a very useful indicator to initiate additional action..." In this regard, opacity monitoring is a well-established means to address emissions of PM.¹¹

Robust statistics do not require that the value of one parameter will in all cases enable an accurate prediction of the value of a second parameter that is of interest. "Robustness" only requires that the value of the first parameter be sufficient for the purpose for which it is being used. In this case, a robust relationship is present between 20 percent opacity on a 3-hour average and compliance with the applicable PM standard.

Lastly, the fact that a particular approach for CAM has been deemed by USEPA to be presumptively acceptable, does not show that the CAM Plan submitted by Illinois Power is unacceptable. The relevant question for the CAM plan submitted for the coal-fired boilers at the Newton Energy Center is whether it meets the criteria set out in 40 CFR 64.3. For these boilers, the use of opacity as the CAM indicator will provide an effective and reasonable means of assuring compliance with the applicable PM standard on an ongoing basis, as required by 40 CFR 64.3(a)(1).

Comment III.A.3 - The CAAPP Permit Does Not Address Implementation of MATS

The CAAPP permit should address how Illinois Power will ensure that the boilers at the Newton Energy Center comply with the Mercury and Air Toxics Standards (MATS) [40 CFR 63 Subpart UUUUU], which was adopted by USEPA in 2011 and went into effect for these boilers on April 16, 2015 [40 CFR 63.9984(b)].

Along with various other HAPs, the MATS rule regulates emissions of non-mercury metal HAPs. For non-mercury metal HAPs, subject coal-fired boilers must comply with either: 1) A limit for filterable PM, 2) Limits for individual non-mercury metal HAPs, or 3) A limit for total non-mercury metal HAPs. The limits for PM emissions are 0.03 lbs/mmBtu or alternatively 0.3 lbs/MWh. (40 CFR 63 Subpart UUUUU Table 2.) For

¹⁰ As stated in the introduction to Appendix A (Example Monitoring Approach Submittals) of the *CAM Technical Guidance Document*, "Note that the resulting examples are not necessarily the only acceptable monitoring approaches for the facility or similar facilities; they are simply examples of different approaches used by particular facilities. The owner or operator of a similar facility may propose a different approach that satisfies part 64 requirements." *CAM Technical Guidance Document*, September 2004, p A-vii.

¹¹ 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 in accordance with USEPA Method 9. Numerical measurements of observations can also be made with monitoring instruments that are installed in the stack or ductwork of an emission unit, in which case opacity can be determined on a continuous basis.

the coal-fired boilers at the Newton Energy Center, the PM limits are much more stringent than the current PM emission limit, 0.10 lbs/mmBtu. Moreover, the MATS rule also requires continuous PM emission monitoring, a PM continuous parametric monitoring system or quarterly performance testing. (40 CFR 63 Subpart UUUUU Tables 6 and 7.)

For the coal-fired boilers at the Newton Energy Center, the Illinois EPA has not explained how Illinois Power plans to comply with the MATS rule. This is particularly egregious given the deliberations on the CAM Plan for these boilers. Both the MATS and the CAM rules contain or create requirements related to monitoring of the PM emissions of the boilers. However, the CAM Plan does not address the PM monitoring that Illinois Power must conduct pursuant to the MATS rule. Therefore, for the Newton Energy Center, by when does Illinois Power intend to comply with the MATS for non-mercury metal HAPs? Does Illinois Power plan to meet the MATS emissions limits for PM, for individual non-mercury metal HAPs or for total non-mercury metal HAPs? If Illinois Power plans to comply with the PM limit, how does it intend to demonstrate compliance and how will this impact or interrelate with the proposed CAM Plan?

Response: The questions in this comment are not relevant to the issuance of a revised CAAPP permit for the Newton Energy Center, which has now occurred. As already discussed, applicable requirements that took effect after the initial CAAPP permit was issued in September 2005 must be addressed during the reopening proceeding of this permit. The MATS rule is one of these post-2005 requirements that will be addressed in the reopening proceeding, for which notice was provided to Illinois Power Generation Company when this revised CAAPP permit was issued.

Notwithstanding this fact, Illinois Power is currently subject to all requirements of the MATS rule. Illinois Power has not proposed to incorporate or rely on monitoring conducted under MATS in its CAM Plan for the PM emissions of the boilers, which plan addresses compliance with the applicable state emission standard, 35 IAC 212.202.

Comment III.B The CAM Plan Does Not Include Sufficient Responsive Actions.

Condition 7.1.13-2 of the proposed CAM plan sets out the actions that Illinois Power is to take in response to excursions of the indicator range. Essentially, the plan requires Illinois Power to "restore operation of the [Boilers] (including the control device and associated capture system) to [their] normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions." Condition 7.1.13-2(c)(ii)(A). This standard does not provide enough detail to assure prompt correction of improper operation, and should be revised to include site-specific description of required responsive actions.

USEPA has emphasized the importance of responsive actions within a CAM plan:

[T]he Agency believes it is critical to underscore the need to maintain operation within the established indicator ranges. Therefore, the rule includes the requirement to take prompt and effective corrective action when the monitored indicators of compliance show that there may be a problem. Requiring that owners and operators are attentive and respond to the data gathered by part 64 monitoring has always been central to the CAM approach.

* * *

[I]t is essential to the CAM goal of ongoing compliance operation that part 64 require that owners or operators respond to the data so that any problems indicated by the monitoring are corrected as soon as possible.

62 FR 54,931.

One example of effective responsive actions can be found in the Title V permit for the Huntley Steam Generating Station, issued by the New York Department of Environmental Conservation. The Huntley permit incorporates tiered responsive actions for the opacity indicator. (Huntley Permit, at 73-74). Under this approach, increasing levels of opacity trigger requirements of more aggressive responsive actions, culminating with a requirement that the unit be removed from service if rolling 24-hour opacity exceeds 19%, or rolling 168-hour opacity exceeds 18%.

The CAM plan for the Newton Energy Center should include a similarly tiered requirement for responsive action, beginning with inspection requirements at lower levels of opacity, and culminating with required shutdown of the affected Boiler at a level near the upper bound of opacity within which compliance with the PM emission limit can be assured. This site-specific description of necessary responsive actions will be more enforceable than the currently vague reference to returning Boilers to their normal manner of operation as quickly as possible.

Response: This comment did not justify any changes to the draft Condition 7.1.13-2. This condition simply reiterates the relevant language in 40 CFR 64.7(d) (1) which addresses how a source must respond to excursions or exceedances identified pursuant to its CAM monitoring.¹² As such, it is fully appropriate that this condition be

¹² 40 CFR 64.7(d) provides:

"(d) *Response to excursions or exceedances.* (1) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown

included in the issued permit in the form in which it was set out in the draft permit without any changes.

The inclusion of "tiered response requirements" in the Title V Permit for the Huntley Station does not support development and imposition of similar requirements for the boilers at Newton Energy Center. A basic question posed by such requirements is whether they are consistent with the basic requirements for a CAM Plan, i.e., that they work to provide a reasonable assurance of compliance. In this regard, it is unclear whether the "Level One" actions required for the Huntley boilers even constitute a response to an excursion or exceedance.¹³ Moreover, when an exceedance or excursion is identified, a CAM Plan approved by the permitting authority should not predetermine the source's response based on the magnitude of the occurrence. As confirmed by 40 CFR 64.7(d) (2), the adequacy of a source's response to an exceedance or excursion is to be evaluated by a regulatory authority on a case-by-case basis.^{14, 15}

Comment IV. Other Conditions of the Permit Must Be Revised Because They Are Legally Insufficient or Unclear.

Aside from the CAM plan, several other proposed modifications are unworkable under federal and state law and should be revised:

Comment IV - Conditions 7.1.9(c)(ii) and (iii)-relating to records to address compliance with opacity and PM emission limits.

In draft Condition 7.1.9(c)(ii), the Illinois EPA proposes to delete the requirement to identify the "upper bound of the 95% confidence interval (using a normal distribution and 1-minute averages) for opacity measurements from the boiler[s], considering an hour of operation, within which compliance with [PM emission limits] is assured" Illinois EPA also proposes to delete the corresponding recordkeeping requirement in Conditions

or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.

(2) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process."

13 Condition 7.2 .II.2.a of the Huntley permit, addresses "Level One" actions and certain actions that the source must take when "...the 24-hour or 168-hour baseline opacity is higher than normal and increased attention should be given to the operation of the boiler and the ESP performance."

14 The cited provisions of the Huntley permit also appear problematic as opacity values with two different averaging times are used, i.e., 24 and 168 hours, both of which would be longer than the compliance period of the applicable PM limit, i.e., 0.17 pound/mmBtu, pursuant to 6 NYCRR 227-1.2(b).

15 As a whole, the provisions of the Huntley permit cited by this comment would suggest that they were additional obligations taken on by a source in the context of settlement of an enforcement action, as they appear to go beyond those necessary for compliance with an applicable emission standard.

7.1.9(c)(iii), that Illinois Power keep records for “[e]ach hour when the measured opacity of an affected boiler was above the upper bound”

The revised Conditions do not meet the Title V/Part 70 requirement that monitoring must provide data representative of the source’s compliance with the underlying permit limits, 40 CFR 70.6(a)(3)(i)(B), (c)(1). As USEPA has determined numerous times in orders, where opacity is used as a parameter to ensure compliance with a PM limit, the opacity range correlating to compliance with the PM emission limit must be “set as enforceable limits” in the permit. *In the Matter of Tampa Electric Co., F.J. Gannon Station*, Objection to Proposed Part 70 Operating Permit No. 0570040-002-AV at 8 (Sept. 8, 2000); see also *In the Matter of the Huntley Generating Station*, EPA Administrator Order at 21 (July 31, 2003) (“the title V permit must include a specific opacity limit [in the PM limit sections of the permit] that would correlate to the PM limit [in the permit].”); *In the Matter of Dunkirk Power LLC*, EPA Administrator Order at 20 (July 31, 2003) (holding that operating outside of the parameter range constitutes a violation of the permit); *In the Matter of Midwest Generation, LLC, Waukegan Generating Station*, EPA Administrator Order at 20 (Sept. 22, 2005) (requiring that opacity used as a surrogate for PM to satisfy Part 70 monitoring requirements must “include a correlation between th[ose] measurements and compliance with the PM emission limitations.”). In fact, USEPA has required that the correlation be set so that it provides direct evidence of compliance or non-compliance with the permit. *In the Matter of Dunkirk Power LLC*, EPA Administrator Order at 19-20 (“Once operating ranges have been established for the ESP operating parameters, operating the ESP outside of any of these ranges would constitute a violation of the title V permit.” (emphasis added)). As a result, the permit fails to meet the requirement that it include “monitoring . . . requirements sufficient to assure compliance with the terms and conditions of the permit.” *In the Matter of Midwest Generation, LLC, Waukegan Generating Station*, EPA Administrator Order at 19 (citing 40 CFR 70.6(a)(3)(i)(B) and 70.6(c)(1)). The permit must be revised to include an enforceable opacity limit corresponding to violation of PM emission limits, set no higher than the 20% opacity limit provided for in the Illinois SIP. While 35 IAC 212.124(d)(2)(A), a provision in the Illinois SIP, already provides that the Plant’s violation of its 20% opacity limit in 35 IAC 212.124 presumptively constitutes a violation of the applicable PM emission standard, a lower limit for opacity may be necessary to ensure compliance with PM emission standard.

With the proposed modification of Condition 7.1.9(c)(iii), Illinois Power will only be required to keep records of the date, time, measured opacity, operating condition, and other information of “three hour block averaging period[s]” (emphasis added) with average opacity above 20 percent. This is further insufficient to ensure compliance with the applicable PM limit. Again, the

applicable PM limit is based on an hourly average. 35 IAC 212.204. Illinois Power should be required to keep detailed records of any one-hour period with average opacity above the applicable opacity limit.

Response¹⁶: The proposed changes to Condition 7.1.9(c) would not result in the Periodic Monitoring for the coal-fired boilers at Newton Energy Center boilers being insufficient. The changes to this condition maintain consistency with 40 CFR 70.6(a)(3)(i)(B) (Section 39.5(7)(d)(ii) of the Act).^{17, 18} Compared to the initial permit, essentially all that has occurred in Condition 7.1.9(c) of the issued permit is that a specific value for the level of opacity, 20 percent, 3-hour average, is now set as part of the Periodic Monitoring to assure compliance with the PM standard for the Newton Energy Center boilers. This value takes the place of the statistical criterion or "method" that would have been required for the future establishment by Newton Energy Center of value(s) of opacity that would serve to assure compliance with the PM standard.¹⁹ The "alternative" approach to Periodic Monitoring for coal-fired boilers for PM that is now present in the revised permit is consistent with the relevant conclusion from the USEPA's decision in *In the Matter of Midwest Generation, LLC, Waukegan Generating Station*.²⁰ This order does not state or suggest that the value of opacity that is selected for Periodic Monitoring must directly correlate with a violation of the PM standard, as implied by this comment:

¹⁶ The Illinois EPA response to this comment regarding 35 IAC 212.124(d)(2)(A) is addressed in response to Comment III.A.1.

¹⁷ 40 CFR 70.6(a)(3)(i)(B) provides as follows: "(3) *Monitoring and related recordkeeping and reporting requirements.* (i) Each permit shall contain the following requirements with respect to monitoring: ... (B) Where the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit, as reported pursuant to paragraph (a)(3)(iii) of this section. Such monitoring requirements shall assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement. Recordkeeping provisions may be sufficient to meet the requirements of this paragraph (a)(3)(i)(B) of this section;"

¹⁸ 40 CFR 70.6(c)(1) does not appear to impose any additional requirements for the subject monitoring. As reiterated by USEPA in the order for the Waukegan Generating Station cited by this comment, "EPA has interpreted section 70.6(c)(1) as requiring that title V permits contain monitoring required by applicable requirements under the Act (e.g., monitoring required under federal rules such as MACT standards and monitoring required under SIP rules) and such monitoring as may be required under 40 CFR 70.6(a)(3)(i)(B)." *In the Matter of Midwest Generation, LLC, Waukegan Generating Station*, EPA Administrator Order (Sept. 22, 2005), p 19.

¹⁹ By way of further explanation, the source appealed Condition 7.1.9(c)(ii) in the initial CAAPP permit, which would have required it to develop a 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." The source argued 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 this condition of the initial permit. Among other things, it 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.

²⁰ The USEPA's Order in *In the Matter of Midwest Generation, LLC, Waukegan Generating Station*, is considered the appropriate guidance from USEPA for this proceeding. This is because it is more recent and addressed Title V permitting of a coal-fired power plant in Illinois.

In this case, since Illinois EPA used opacity and (sic) as one of the surrogate methods to assure compliance with PM limits, the Title V permit must include a specific opacity limit or a method for determining an opacity limit that would correlate the results of the PM testing results (sic) and the opacity limit. *In the Matter of Midwest Generation, LLC, Waukegan Generating Station*, EPA Administrator Order (Sept. 22, 2005), p 20.

Finally, this comment has not demonstrated that the 20 percent opacity limit in 35 IAC 212.122(a) has the role suggested by this comment for the CAM Plan required under 40 CFR Part 64 to address compliance of the coal-fired boilers at the Newton Energy Center with the applicable PM standard in 35 IAC 212.204. The indicator range for opacity under the CAM Plan could be higher than 20 percent if such higher value would provide a reasonable assurance of compliance with 35 IAC 212.204. However, Illinois Power has reasonably chosen to set the indicator range at 20 percent. This is because opacity greater than 20 percent on a three-hour average from the coal-fired boilers could be accompanied by exceedances of the standard set forth in 35 IAC 212.122(a).

Comment IV - Condition 7.1.10-2(d)(iv)(A)(IV)-relating to reporting required "for periods when PM emissions were in excess of the limitations in Conditions 7.1.4(a)(ii) and 7.1.4(b)."

Illinois EPA proposes to remove the requirement that Illinois Power include in quarterly operating reports "[t]he percent opacity measured for each six-minute period during the exceedance." In the Statement of Basis, Illinois EPA asserts that the condition has been changed because "the revised permit relies upon opacity of emissions on a 3-hour average, rather than on a 6-minute average, as the indicator of compliance of the coal-fired boilers with 35 IAC 212.202." Again, a three-hour block average cannot assure compliance with an hourly emission limit. Moreover, this explanation does not provide a basis for deleting the requirement to report percent opacity measured during a violation of PM emission limits. Given that opacity is continuously monitored by the COMS, the requirement to report opacity in six-minute increments is not burdensome, but supplies useful information to both Illinois EPA and the public to enforce other permit requirements. The Condition should be reinstated.

Response: This condition does not need to be retained as requested in the comment. As noted in the comment the requirement to include in quarterly operating reports the percent opacity measured for each six-minute period during an exceedance was removed from the CAAPP permit because the permit relies upon opacity on a 3 hour average, rather than a six-minute average. This is the basis for removing the requirement as specifically stated in the Statement of Basis. The

comment further states that given that the opacity is continuously monitored by the COMS the requirement to report opacity in six minute increments is not burdensome. This condition was also revised to require the qualitative or if available quantitative magnitude of the exceedance (3-hour average and any supporting data i.e., 6-minute averages and 1 minutes averages) to be included in the quarterly report. Therefore any available data, including COMS data, would be included in the quarterly compliance reports. Additionally, the revision did not remove any requirement for other exceedance data, such as an opacity violation, to be included in this report.

Comment IV - Conditions 7.1.10-3(a)(i)-relating to reporting requirements for continued operation during malfunctions and breakdowns.

This condition would be revised to increase the duration of an opacity exceedance that triggers Illinois Power's requirement to immediately notify Illinois EPA from five or more 6-minute averaging periods to eight or more periods. In the Statement of Basis, Illinois EPA asserts that the additional 18 minutes are necessary to provide "a reasonable opportunity for the source to complete corrective action so that the source would not need to undertake immediate reporting to the Illinois EPA for opacity exceedances that were relatively brief and accordingly likely minor in nature." This explanation is unreasonable. Pursuant to 35 IAC 212.123 and 212.124, opacity exceedances of two six-minute averaging periods constitute violations of the SIP's opacity and PM emission limits. Exceedances of thirty minutes in duration are serious violations that should be brought to Illinois EPA's attention immediately. The conditions allow Illinois Power to notify Illinois EPA by "telephone (voice, facsimile or electronic)"—a process that with modern communication technologies would take one worker less than one minute. This process is not burdensome and would not interfere with the corrective action process. The Condition should be reinstated.

Response: This comment does not show that the planned change to this condition was improper and that the initial condition should have been retained in the revised permit. Condition 7.1.10-3(a)(i) deals with reporting for continued operation of a boiler with excess opacity or PM emissions, including continued operation during malfunction or breakdown. It requires Illinois Power to provide certain "incident specific" notifications and reports to the Illinois EPA for such incidents. All such incidents must also be reported in the quarterly reports under Condition 7.1.10-1(b) (periodic reporting of deviations) and Condition 7.1.10-2(d) (reporting of opacity and PM emissions). This comment specifically addresses the requirement in Condition 7.1.10-3(a)(i) that Illinois Power must immediately notify the Illinois EPA when the opacity from a boiler exceeds the opacity standard for a specified number of 6-minute averaging periods, unless

Newton Energy Center has begun shutdown of the boiler by such time.

The source appealed Condition 7.1.10-3(a)(i) of the initial permit. In the settlement negotiations, the source explained that it objected to having to provide notifications for opacity exceedances at a point in time when the circumstances surrounding the exceedances may still be unfolding or investigations are only at an 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) for immediate notification were not correct. The Illinois EPA had assumed that 30 minutes would provide a reasonable opportunity for Newton Energy Center 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 expected that 30 minutes would provide adequate time for Newton Energy Center 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 expected 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. Therefore, 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). Newton Energy Center will now have 18 additional minutes in which to correct the problem causing excess opacity or begin to shut down a boiler before it needs to 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 Newton Energy Center has been provided.

Comment IV - Conditions 7.2.6(a)(i), 7.2.9(b)(i)-(ii), 7.3.6(a)(i), and 7.3.9(b)(i)-(ii)-relating to control measures for coal and fly ash handling and storage.

Illinois EPA fails to require any specific control measures for coal and fly ash storage. The proposed modified conditions are so vague as to be unenforceable. In the original conditions, the emission sources were *required* to implement identified controls. Based on the revised language, though, it is impossible to know whether any specific control is required.

Illinois Power is given too much discretion over its control measures, making this Condition out of compliance with 40 CFR 70.6(a). Under Conditions 7.2.9(b)(i)-(ii) and 7.3.9(b)(i)-(ii), Illinois Power must maintain a record to reflect any changes in control measures for coal and fly ash handling and storage. This record must be accompanied by a demonstration that these measures are

sufficient to ensure compliance with emission limitations. However, Illinois Power is not required to seek Illinois EPA's approval in order to implement these changes. Finally, because Illinois Power is given absolute discretion in selecting its control measures, if any, the public is denied the opportunity to meaningfully comment on these measures.

I therefore concur with USEPA in its request that the proposed CAAPP permit:

- (1) Specify minimum control measures for coal and fly ash handling and storage by revising Conditions 7.2.6(a)(i) and 7.3.6(a)(i);
- (2) Require Illinois EPA to review and approve of any control measures selected by Illinois Power by revising Conditions 7.2.9(b)(i)-(ii) and 7.3.9(b)(i)-(ii); and
- (3) Incorporate the specific control measures, including the pertinent information on the control measures (description, frequency, and other information necessary to demonstrate compliance with applicable limitations), corresponding to each emission point into the permit during the planned reopening for cause process.

Response: See Response to USEPA Comment #1

Comment IV - Conditions 7.2.8(b), 7.3.8(b)-relating to inspection of coal and fly ash handling processes.

The draft revised CAAPP permit would not require adequate inspections of coal and fly ash handling processes. Among other inspection measures, Conditions 7.2.8(b) and 7.3.8(b) direct Illinois Power to inspect affected operations by either monitoring visible emissions ("VE") or opacity annually. This lack of regular monitoring or inspections is troubling. "Given that the majority of the affected equipment operates regularly throughout the year, it is not clear how the draft CAAPP permit inspection requirements and frequency of the required VE observations are adequate to yield reliable and accurate emissions data, as required by 40 CFR 70.6(a)(3)(i)(B)." (USEPA Comments on Newton Energy Center's Proposed CAAPP Permit (March 12, 2015)²¹).

Response: See response to USEPA Comment #2

Comment IV - Conditions 7.2.8(b), 7.3.8(b)-relating to inspection of coal and fly ash handling processes (continued).

²¹ The Illinois EPA should also clarify that monitoring opacity every three years pursuant to Conditions 7.2.7(a) and 7.3.7(a) does not obviate the need for annual VE or opacity monitoring pursuant to Conditions 7.2.8(b) and 7.3.8(b). The provision in Conditions 7.2.8(b) and 7.3.8(b) allowing the permittee to perform "Reference Method 9 observations" in accordance with Conditions 7.2.7(a) and 7.3.7(a) could be misconstrued to provide that merely complying with Conditions 7.2.7(a) and 7.3.7(a) every three years would constitute compliance with Conditions 7.2.8(b) and 7.3.8(b). This interpretation essentially would write Conditions 7.2.8(b) and 7.3.8(b) out of the permit and further reduce the frequency of monitoring from annually to triennially.

For all coal and fly ash handling operations at the Newton Energy Center, the Periodic Monitoring required by the CAAPP Permit must include conducting inspections on a regular basis. The Illinois EPA should also have provided an explanation in the Statement of Basis for the draft revised CAAPP Permit of how the control measures and monitoring requirements for each transfer point, coal pile, conveyor belt, and other points in fugitive emissions will assure compliance with all applicable opacity and PM limits. This should include a discussion of the relationship between monitoring frequency and applicable emission limits.

Response: As generally discussed in the Statement of Basis, the regular inspections for coal handling and fly ash handling required by Conditions in 7.2.8 and 7.3.8, respectively, of the CAAPP Permit for the Newton Energy Center will serve to confirm that the relevant control measures are being properly implemented for these emission units. As discussed in other responses, these control measures must be developed to ensure compliance with the applicable standards, as set forth in Conditions 7.2.4 and 7.3.4 of the CAAPP permit. As such, proper implementation of the control measures should ensure compliance. Formal verification of the proper implementation of control measures on a monthly basis (weekly basis for fly ash load out processes) is sufficient because these control measures will become part of the standard operating procedures for these units. In addition, proper implementation of the control measures for a unit is required at all times that the unit is in operation. Any lapses in the implementation of control measures are deviations and must be addressed in the records required by Condition 7.2.9(e) and 7.3.9(e).

The CAAPP permit also includes requirements to confirm that the relevant control measures assure compliance with applicable standards. With respect to the opacity standard, as part of the regular formal inspections of these units, Illinois Power is also required to conduct observations for visible emissions or opacity of some units during each inspection with all of these units observed for visible emissions or opacity at least once per calendar year. For fly ash handling equipment, which are subject to the PM emission standards in 35 IAC 212.321 or 212.322. Illinois Power is required by Condition 7.3.9(b) (ii) to maintain a demonstration that confirms that the control measures used for this equipment are sufficient to assure compliance with the applicable limits pursuant to these standards.

Comment IV - Condition 7.1.1—relating to change in heat input.

Condition 7.1.1 provides for an increased heat capacity for both boilers at the Newton Energy Center, from 5,500 mmBtu/hour to 6,000 mmBtu/hour. This increase in heat capacity should alert Illinois EPA to the possibility of a "major modification" at the Newton Energy Center that would subject Illinois Power to New Source Review ("NSR") permitting requirements under the PSD rules. NSR permitting is required for any major modification, which "means any physical change in or change in the method of operation of a major stationary source that would result in: a significant emissions increase... of any

regulated NSR pollutant... and a significant net emissions increase of that pollutant from the major stationary source." 40 CFR 52.21(b)(2)(i). The boilers' increase in heat capacity very well could be the result of a change in method of operations or a physical change at the plant. Further, it could lead to a significant emissions increase. As a result, Illinois EPA and Illinois Power must explain why the increase in heat capacity at the Newton Energy Center does not constitute a major modification for purposes of the NSR requirements.²²

Response: The change to Condition 7.1.1 addressed by this comment does not provide for any modification of the coal-fired boilers at the Newton Energy Center, as is assumed in this comment. As discussed in the Statement of Basis, page 61, this change was made so that the information in Condition 7.1.1 describing these boilers is more accurate, reflecting the nominal heat input capacity of these boilers in 2005 when the original CAAPP permit was issued.²³ One of the reasons that the original CAAPP permit that was appealed was that the information in this condition was incorrect. This change to Condition 7.1.1 resolved this element of the appeal of the original permit.

²² This comment was followed by a number of specific questions, as provided below, related to this change to Condition 7.1.1. As these question were based on the erroneous assumption in this comment that this revision to the permit reflected a modification of the coal-fired boilers at the Newton Energy Center, specific responses to each of these questions are not warranted.

- (1) What operations at the Newton Energy Center led, or will lead, to this increase in heat capacity in the boilers at the plant? When did these operations begin, or is the increase in heat capacity only anticipated?
- (2) Was there an increase in actual heat input in the boilers at the Newton Energy Center, or is there only an anticipated increase in actual heat input? If so, when did the increase in actual heat input occur, or when does Illinois Power anticipate this increase in actual heat input will occur?
- (3) Does the increase in heat capacity reflect a physical change or a change in the method of operation of the Newton Energy Center?
- (4) If the Illinois EPA believes that the Newton Energy Center's increased heat capacity does not constitute a physical change or a change in the method of operation of the Newton Energy Center, does Illinois EPA believe an exemption found under 40 CFR 52.21 (b)(2)(iii) is applicable to these circumstances? If so, which one?
- (5) Has the Newton Energy Center begun to use an alternative fuel, or does it plan to do so?
- (6) Has the Newton Energy Center increased its hours of operation, or does it plan to do so?
- (7) Has the Newton Energy Center increased its production rate, or does it plan to do so?
- (8) Does Illinois Power intend to seek an NSR permit related to the increased heat capacity?

²³ **The general description in Condition 7.1.1 of the two coal-fired boilers at the Newton Energy Center is only for informational purposes. It is included in the CAAPP permit to assist individuals who use or read the permit in understanding the substantive provisions of the CAAPP permit that apply for these boilers and their control systems. The fact that Condition 7.1.1 is only for informational purposes was clarified in the revised permit. As discussed in the Statement of Basis, page 17, a note was added to Condition 7.1.7 explicitly stating that this condition is only for informational purposes.**

These circumstances provide an adequate explanation for this change to the CAAPP permit. They do not suggest that these boilers have undergone any modifications. Moreover, if the boilers have undergone modifications under the PSD rules that would constitute major modifications, this change to the permit would not excuse the source from any requirements of the PSD rules that would be applicable.

USEPA Comment 1

The draft CAAPP permit requires the Permittee to implement and maintain control measures to minimize Visible Emissions (VE) of PM from coal handling and processing equipment, and provide assurance of compliance with the applicable emission standards in conditions 7.2.4 and 7.3.4²⁴ The draft permit states that the Permittee shall implement and maintain "the control measures" for the affected operations, which apply to coal handling and fly ash handling equipment. Condition 7.2.6(a)(i) (emphasis added). The draft permit further requires the Permittee to submit to Illinois EPA a record of the established control measures for each of the affected operations within 60 days of permit issuance.²⁵

As written, the draft CAAPP permit does not require the Permittee to use any specific control measures for coal handling and fly ash equipment. The draft permit allows the Permittee to select any type of control measure(s), and provides the Permittee discretion to change those control measures. Therefore, the draft CAAPP permit does not comply with 40 CFR 70.6(a) because it does not contain sufficient operational requirements to assure compliance with the applicable opacity and PM limits for coal handling and fly ash handling equipment.²⁶ In addition, the draft permit does not provide the public with the opportunity to meaningfully comment on the selected control measures.

To address these concerns, we request that Illinois EPA:

a. Revise Conditions 7.2.6(a)(i) and 7.3.6(a)(i) to specify the minimum set of control measures for the coal handling and fly ash handling equipment;

²⁴ See Conditions 7.2.6 and 7.3.6

²⁵ See, e.g., Condition 7.2.9(b)(iii).

²⁶ See, generally, Conditions 7.2.8 and 7.3.8.

b. Revise Conditions 7.2.9(b)(i) and (ii) and 7.3.9(b)(i) and (ii) to require review and approval by Illinois EPA of the control measures selected by the Permittee; and

c. Incorporate the specific control measures, including the pertinent information on the control measures (description, frequency, and other information necessary to demonstrate compliance with applicable limitations), corresponding to each emission point into the permit during the planned reopening for cause process.²⁷

Response: The permit conditions addressed by the comment require Illinois Power to implement control measures on the affected operations, as well as to "operate and maintain" those measures on an on-going basis.²⁸ The permit also requires Illinois Power to create and maintain a list of various control measures being implemented,²⁹ which are currently identified in the permit as moisture content of the coal and fly ash, dust suppression, enclosures and covers,³⁰ and to apprise the Illinois EPA of revisions to the list.³¹ The associated inspection and recordkeeping requirements³² are designed to ensure that the control measures are being followed. Cumulatively, these control measures, recordkeeping and inspections establish the permit's approach to periodic monitoring for these affected operations.

The Illinois EPA established the use of control measures to facilitate Periodic Monitoring for the subject operations. Developed as work practice standards in the initial 2005 permit and retained in the negotiated revisions to the permit,³³ the use of control measures was deemed appropriate as one component of Periodic Monitoring for the affected operations.³⁴ This requirement provided a reliable and enforceable means of verifying compliance with the emission standards that apply to the affected operations (i.e., visible and fugitive emissions).³⁵³⁶ The legal basis for the control measures is derived from the authority of Section 39.5(7)(a) of the Act for the purpose of

²⁷ This is appropriate since the current permit will require the submittal of full documentation to support the selected control measures

²⁸ See, Conditions 7.2.6(a)(ii) and 7.3.6(a)(ii).

²⁹ See, Conditions 7.2.9(b) and 7.3.9(b).

³⁰ See, Conditions 7.2.1 and 7.2.2 and Conditions 7.3.1 and 7.3.2.

³¹ See, Conditions 7.2.9(b)(iii) and 7.3.9(b)(iii).

³² See, Condition 7.2.8 and 7.2.9 and Condition 7.3.8 and 7.3.9, respectively.

³³ As previously noted, the requirements for control measures in the revised CAAPP permit are substantially identical to those contained in the initial CAAPP permit. The changes being made to these conditions depict mostly stylistic changes to the language and do not modify or alter the substantive elements relating to control measures.

³⁴ The Illinois EPA acknowledged this reasoning in the Responsiveness Summary accompanying the issuance of the initial CAAPP permit, observing that it was requiring the on-going implementation of the work practices and that, together with inspection and recordkeeping, the requirements will assure compliance with periodic monitoring. See, Response to Public Comments for CAAPP Permit Applications for Midwest Generation et al, at 33 (September 29, 2005).

³⁵ See, Conditions 7.2.4 and 7.3.4.

³⁶ The requirements contain adequate specificity by acknowledging the type of control measure in use and are practically enforceable by requiring the control measures record and submittal. Notably, these contentions were raised in an earlier proceeding and were rejected by the USEPA. See USEPA order responding to petitions, Midwest Generation (Fisk Generating Station).

supporting Periodic Monitoring that does not stem from applicable requirements expressly derived from underlying regulations.

The nature of the permit requirements is analogous to regulatory programs under the Illinois State Implementation Plan³⁷ and certain New Source Performance Standards.³⁸ Those programs typically require an affected source to identify best management (or good engineering) practices to minimize emissions as may be needed, or as appropriate, for site conditions. Within the regulatory framework, subject sources retain considerable latitude in selecting the type and suitability of control measures relative to circumstances that directly bear upon the usefulness and/or performance capabilities of those measures. Such flexibility enables sources to address varying types and degrees of site conditions, range of operation and changes in the characteristics of resulting emissions.

In the CAAPP permit, the Illinois EPA's approach to Periodic Monitoring for the affected operations and processes is similar to the regulatory framework described above. However, the Illinois EPA did not require a formal approval process for the selected control measures, or for subsequent changes to the list of control measures. In the absence of underlying regulatory requirements existing in federal or state law, mandating these additional requirements in a Title V permit is potentially outside the scope of Agency authority³⁹ and, further is arguably unnecessary given the limited purpose meant to be served by the control measures (i.e., Periodic Monitoring).

The comment also expresses concern regarding the absence of an opportunity for public comment on the control measures. The revised CAAPP permit, like the initial permit, requires the source to submit a list of control measures that will be operated and maintained within 60 days of permit issuance. Owing to the lack of permit effectiveness for the initial CAAPP permit, the source has yet to generate this record and the comment is therefore premature. Once the record is submitted to the Illinois EPA, it will be available for public viewing and inspection upon receipt of a request filed under the state's Freedom of Information Act.^{40 41}

³⁷ See, 35 IAC Part 212.309.

³⁸ See, 40 CFR Part 60 Subpart Y.

³⁹ An attempt to impose such requirements would likely raise legal questions including whether Title V permit authorities may create new substantive requirements and whether mandating the use of certain emission requirements constitutes improper rulemaking. To replicate, through a Title V permit, principal elements of a regulatory program that could not otherwise be imposed on a source as an applicable requirement would likely exceed the scope of gap-filling and/or other implied authorities available to Title V permitting agencies. It can be noted that the Illinois EPA will be reviewing relevant material generated pursuant to the permit (e.g., record of control measures) to assure, for purposes of any future permit action, that the use of control measures being implemented by the source is consistent with applicable permit requirements.

⁴⁰ Further, it is presently anticipated that the generated record will be incorporated by reference in the CAAPP permit by way of a future permit proceeding (e.g., permit reopening or significant modification) and would therefore be a part of any permit record regarding the same.

⁴¹ It should also be noted that the substance of the comment is beyond the scope of changes being addressed in this permitting action. The subject requirements relating to control measures underwent public comment and USEPA review at initial permit issuance and were clearly ascertainable at that time. More fundamentally, the permit modification procedures undertaken for resolving the CAAPP utility appeals appropriately do not encompass a comprehensive review of

USEPA Comment 2.

The frequency of the required observations of visible emissions (VE) from coal handling equipment and fly ash equipment is inadequate to assure continuous compliance with applicable opacity and PM limits. The draft revised CAAPP permit would contain inspection requirements for the coal handling and fly ash equipment.⁴² These include monthly inspections of the coal handling and fly ash equipment, and weekly (and monthly) inspections of the fly ash equipment. In addition, the draft permit requires that the Permittee perform VE observations using EPA Reference Method 22 once per calendar year.

Given that the majority of the affected equipment operates regularly throughout the year, it is not clear how the draft CAAPP permit inspection requirements and frequency of the required VE observations are adequate to yield reliable and accurate emissions data, as required by 40 CFR 70.6(a)(3)(i)(B), with respect to the applicable opacity and process weight rate PM limits

In the reopening proceeding, once the Illinois EPA has the information regarding the control measures for different emission points, Conditions 7.2.8(b) and 7.3.8(b) should be revised to include additional monitoring and/or testing to yield the reliable data that assures compliance on a continuous basis.

Finally, Illinois EPA should provide in the Statement of Basis for this permitting action an explanation of how the control measures and monitoring requirements for each transfer point, coal pile, conveyor belt, and other points of fugitive emissions will assure compliance with all applicable opacity and PM limits. This should include a discussion of the relationship between monitoring frequency and applicable emission limits.

Response: This comment focuses narrowly on only one aspect of Periodic Monitoring for the subject equipment (i.e., monthly inspection requirement), while overlooking other aspects of the overall monitoring approach.⁴³ The concept of Periodic Monitoring eschews a one-size-fits-all framework and is therefore regarded as something of a case-by-case evaluation. In a similar vein, one component of periodic monitoring should not trump other components, or be singled out without giving due regard to its relationship to the other components of the monitoring.

the permit. Rather, review is limited to the issues directly arising from the significant modifications to a permit. This approach is supported by the preamble discussion accompanying the Part 70 rules and was adopted by the Administrator in a subsequent petition response. For reasons that relate to the policy of administrative finality, the approach is equally essential in the current proceeding to achieve a complete resolution of the CAAPP appeal.

⁴² See Conditions 7.2.8 and 7.3.8

⁴³ As observed with the previous comment, the Illinois EPA notes that the subject comment is beyond the scope of changes being addressed in this permitting action. The CAAPP procedures governing here restrict this proceeding to only those issues directly arising from the planned significant modifications to the 2005 permit.

A key component of the Periodic Monitoring is an on-going requirement that Illinois Power operate and maintain designated control measures for the equipment on an as-needed basis or, similarly stated, as necessary to assure compliance. This obligation, which is required whenever equipment is operating and material is being handled,⁴⁴ is now codified in the permit, although various uses of control measures have long been practiced by Illinois Power and the other utility sources.⁴⁵

The use of control measures is accompanied by periodic verifications that must be formally undertaken by the source. Detailed records must be maintained for each instance in which an affected operation/process operates without the presence of the designated control measures.⁴⁶ Deviations from the requirement to operate and maintain control measures must also be reported.⁴⁷ The inspection and record-keeping requirements are the remaining components of Periodic Monitoring. The formal inspections, by design, will provide specific confirmation that the designated control measures are being properly operated and maintained. Records must be kept for each required inspection to document the operation and condition of the applicable control measures, as well as the performance of the inspection.⁴⁸

It should be noted that the use of control measures is required independent of the informal verifications (or observations) of the subject equipment that are contemplated by the permit. Lapses in the use of such measures must be corrected by Illinois Power independent of the formal inspections that are required. Because the collective requirements relating to control measures should be adequate to verify implementation of the control measures, the imposition of a daily, formal observation is not necessary to provide periodic monitoring that satisfies Title V's requirements. For these reasons, the comment

⁴⁴ The fact that the equipment operates on a regular basis does not constitute a sufficient basis to require more frequent inspections, as suggested by the comment, when control measures must be used whenever equipment operates. Moreover, it is inaccurate to suggest that all equipment operates "continuously, 365 days a year." In fact, most of the equipment operates intermittently. For example, the unloading of silos can be limited by other factors not in the control of the Permittee. The duration of daily equipment operation is lower when only one of the boilers is operating and the other boiler is out for maintenance.

⁴⁵ Certain work practices are and will continue to be implemented for the subject equipment, independent of the CAAPP permit, for reasons related to worker safety, equipment reliability and longevity, and operational costs. The introduction of the requirement for control measures to the CAAPP permit is significant in that it codifies past and continuing dust minimization practices and establishes a supporting means of oversight and verified record-keeping.

⁴⁶ Such records include a description of the event, probable cause of the occurrence, any preventative measures taken, and an explanation of whether the relevant opacity standards were exceeded. See generally, Conditions 7.2.9(e) and 7.3.9(e).

⁴⁷ Occasions during which the subject equipment is not in compliance for more than a specified time require notification within 30 days. Otherwise, the deviation must be reported in a quarterly report. See generally, Conditions 7.2.10(a) (ii) and (iii) (A) and 7.3.10(a) (ii) and (iii) (A).

⁴⁸ The inspections must document the date and time of the inspection, as well as the particular equipment being observed; the "observed condition" of the control measures, including both the "presence of any visible emissions or atypical accumulations of coal fines;" a description of the "maintenance or repair" of equipment relating to the control measures, as well as a review of pending recommendations from prior inspections; and a description of any corrective action, including whether such action occurred within two hours of discovery and returned the operation to normal (i.e., no visible emissions). See generally, Conditions 7.2.9(d) and 7.3.9(d).

does not justify changes to the frequencies of the formal inspections specified by the permit.⁴⁹

Moreover, more frequent observations for visible emissions would not provide useful information. Neither the applicable standards nor the permit prohibit visible emissions from the subject equipment. For purposes of periodic monitoring, the absence of visible emissions is a criterion that will act to simplify the periodic inspections for certain equipment, such as the coal bunkers which are located in a closed building.⁵⁰ For such equipment, the absence of visible emissions will likely readily confirm proper implementation of control measures. If visible emissions are not present from such equipment, either during an initial observation for visible emissions or following timely repair, it would also be unproductive to require observations for the opacity of emissions by USEPA Method 9, as are necessary for equipment from which visible emissions are normally present.

In summary, the approach to Periodic Monitoring developed for the subject equipment in 2005, centering on work practice requirements for the use of control measures, was both sound and practical.⁵¹ However, consistent with an earlier commitment to Region V, the Illinois EPA will re-evaluate this approach contemporaneous with the Re-opening proceeding.

USEPA Comment 3

The draft CAAPP permit language should allow for the 20% parametric monitoring limit for the coal-fired boilers to be revised downward should testing indicate a more stringent limit is necessary to demonstrate compliance with applicable PM limits.

Condition 7.1.9(c)(ii)(A) establishes an opacity limit to comply with the PM limit. The draft CAAPP permit requires testing of the coal-fired boilers within 120 days of issuance of the current permit to determine the correlation between PM emissions and opacity. This testing is expected to yield data that will reflect the relationship between opacity and PM emissions from the boilers at this facility. We request that, in the event that testing indicates a relationship of

⁴⁹ Formal inspections of the coal handling equipment and certain fly ash equipment are required monthly pursuant to Conditions 7.2.8(a) and 7.3.8(a), respectively. Inspections of fly ash load-out operations are required weekly pursuant to Condition 7.3.8(a)(ii).

⁵⁰ It is also expected that visible emissions will normally not be present for a number of other pieces of equipment. The transfer point from the railcar loading pit to the coal transfer conveyor is located underground. Fly ash is transferred from the boilers with pneumatic conveying systems.

⁵¹ The original 2005 permit established a comprehensive regimen for periodic monitoring. In its consideration of periodic monitoring for the subject equipment, the Illinois EPA recognized that varying combinations of components could serve to establish sufficient periodic monitoring, depending upon the nature of the subject equipment and the applicable emissions control requirements. In the case of the coal handling, coal processing, and fly ash equipment, this consideration necessarily accounted for the type, function, placement and locations of these units and the straight-forward nature of the emission standards that apply to these units. See, Response to Public Comments for CAAPP Permit Applications for Midwest Generation et al, at 33 (September 29, 2005) ("these requirements need not be identical for each unit" and "various combinations of the requirements will suffice depending on the nature of a unit and the emission control requirements to which it is subject.").

opacity to PM that indicates the need for a number that is more stringent than the established limit of 20%, Illinois EPA revise the Condition during the re-opening to reflect the more stringent/accurate limit.

Response: Condition 7.1.9(c) (ii) (A) must remain in the permit as drafted. This is because this condition requires recordkeeping for deviations from the SIP requirement for opacity in Condition 7.1.4(g), which is 35 IAC 212.122, 20% opacity. Changing the 20% value in this condition would establish a new emission standard, which is not provided for by Title V of the Clean Air Act.

The value of opacity that may "change" in the future is the value in Condition 7.1.9(c) (ii) (B). However, upon completion of the requirements in Condition 7.1.13-1(b), for emission testing to determine an indicator range for opacity in the CAM plan for PM, Condition 7.1.9(c) (ii) (B) will become obsolete.⁵² The reason Condition 7.1.9(c) (ii) (B) will become obsolete is because the CAM Plan will then provide monitoring to demonstrate compliance with the PM limitation from the SIP requirement in Condition 7.1.4(b), which is 35 IAC 212.204, 0.10 lbs/mmBtu. The CAM Plan must include an opacity value that is consistent with the results of the PM testing that will be performed specifically for this purpose. As such, this value in the CAM plan may be lower than 20%. This value of opacity will be added in the conditions dealing with CAM in the revised permit that is issued pursuant to the Re-Opening Proceeding or other modification.

⁵² Condition 7.1.13-2 states the following: "Pursuant to 40 CFR 64.5(d), upon start of the monitoring in accordance with Condition 7.1.13-2(a), recordkeeping pursuant to Condition 7.1.9(c) (ii) (B) shall be discontinued."

F. FOR ADDITIONAL INFORMATION

Questions about the public comment period and permit decision should be directed to:

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