

Illinois Environmental Protection Agency
Bureau of Air
Permit Section

February 5, 2015

Responses to Comments on the
Planned Significant Modification of the
Clean Air Act Permit Program (CAAPP) Permit Issued to
Kincaid Generation, LLC
Kincaid, Illinois

Source I.D. No.: 021814AAB
Permit No.: 95090078

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A. DECISION

On February 5, 2015, the Illinois EPA issued a modified Clean Air Act Permit Program (CAAPP) permit to Kincaid Generation, LLC for the Kincaid Generating Station.

B. BACKGROUND

The Kincaid Generating Station is a coal-fired electric power plant owned by Kincaid Generation, LLC and operated through its affiliate Kincaid Energy Services Company, LLC. The plant has two coal-fired boilers that produce steam that is then used to generate electricity. Kincaid Generating Station 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 Kincaid Generating Station on September 29, 2005. Kincaid Generation, LLC 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 Kincaid Generation, LLC's petition for appeal and granted an administrative stay of the issued CAAPP permit in its entirety.

Kincaid Generation, LLC 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 Kincaid Generation, LLC.

The initial step to achieving the goal of having the Kincaid Generating Station 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 EPA and Kincaid Generation,

LLC 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 permit. Kincaid Generation, LLC 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, Kincaid Generation, LLC submitted the information required by these rules, including a "Compliance Assurance Monitoring Plan" (CAM Plan) for Kincaid Generating Station 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 Kincaid Generating Station 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 Kincaid Generating Station, 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 Lincoln Library, the public library in Springfield and the Illinois EPA's Headquarters in Springfield for review by the public. This comment period began on June 30, 2014. A public hearing was not requested during the public comment period. The comment period ended on July 30, 2014.

Formal comments regarding the initial modified permit were submitted jointly on July 30, 2014 by the Environmental Law and Policy Center, Natural Resources Defense Council and Sierra Club (Public Comments). The USEPA also submitted formal comments on July 30, 2014. These comments and the Illinois EPA responses to these comments are provided later in this document.

Response to one comment from the USEPA during the public comment period resulted in the need for additional changes to the CAAPP permit for the Kincaid Generating Station. Because of the nature of these additional changes, the Illinois EPA held a supplemental public comment period for these changes. The details of these additional changes were included in a Supplemental Statement of Basis provided with the revised permit language.

Consistent with the approach taken for the July public comment period for the planned issuance of a modified CAAPP permit for the Kincaid Generating Station, summaries of other planned

¹ New applicable requirements for Kincaid Generating Station 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.

revisions to this permit that were considered to be minor modification or administrative amendments were included in the Supplemental Statement of Basis. These other planned revisions were the result of continued negotiations with the operators of Illinois' coal-fired power plants to resolve the remaining appeals of the CAAPP permits for these plants. Kincaid Generation, LLC requested these additional changes also be made as part of the issuance of a modified CAAPP Permit for the Kincaid Generating Station.

The supplemental comment period began on November 26, 2014. A public hearing was not requested during the public comment period. The comment period ended on December 26, 2014.

Formal comments regarding the planned changes during the supplemental comment period were submitted jointly by the Environmental Law and Policy Center and Sierra Club. These comments and the Illinois EPA responses to their comments are also provided later in this document.²

D. AVAILABILITY OF DOCUMENTS

Copies of this responsiveness summary and the modified 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 Lincoln Library at 326 S. 7th St in Springfield. 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 (brad.frost@illinois.gov).

E. COMMENTS DURING INITIAL PUBLIC COMMENT PERIOD WITH RESPONSES BY THE ILLINOIS EPA

Comment I (page 2) – Procedural Flaw

This comment notes that there are serious deficiencies with the process Illinois EPA has undertaken to issue legally functional CAAPP permits for the Kincaid Plant and other Illinois coal-fired power plants. In this case, Illinois EPA is proposing to put into place until 2019 a CAAPP permit that omits many legally applicable requirements, based on an application submitted almost *nineteen years ago* and an initial permit that should have expired five years after it was first issued, in 2010. This has left unacceptable gaps in the permit's conditions. The Statement of Basis notes that the United States Environmental Protection Agency ("USEPA") expressed concern in a similar CAAPP permit appeal that Illinois EPA's stated intent to reopen the permit "lacks a sufficiently enforceable commitment." (*Id.* at 7).

The commenters share USEPA's concern, and 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. (*Id.* n. 6). This comment notes that Illinois EPA has to date finalized significant modifications to Title V permits for two Illinois coal-fired power plants—the Coffeen and Dallman plants—that, like the Kincaid CAAPP permit, had been stayed before the Board since 2006. Illinois EPA has

² The USEPA did not submit any formal comments during the supplemental comment period.

not completed the promised process of permit reopening for either of those permits yet, though. Illinois EPA's Title V program for the State's coal-fired power plants remains seriously deficient. A more appropriate process for the Kincaid Plant would have been a full-scale permit renewal as opposed to the current process. A permit renewal would have been more consistent with and supported by the Illinois SIP and the timelines provided by Title V of the CAA, 42 U.S.C. § 7661b.

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 Kincaid Generating Station coal-fired power plant. The legal process for doing so is set forth in CAAPP's procedures, which the Illinois EPA is obliged to follow. The Illinois EPA disagrees that there are deficiencies with the process set forth in the applicable laws and regulations. However, if any such deficiencies with the process exist, it is a product of the statutory and/or regulatory framework of the Title V 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 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 Kincaid Generating Station operate without an effective CAAPP permit. It would also have been repetitious for a large body of the permit that was not challenged in this or the other appeals. The Illinois EPA did not consider the permit renewal process, as suggested by the comment. Permit renewal procedures are not a viable legal option in the present context, as they can only become applicable after an initial CAAPP permit has run its full term.

The Illinois EPA opted instead to use the CAAPP's modification procedures to make the CAAPP permit for the Kincaid Generating Station effective and to resolve the related appeal. This decision reflected a considered judgment of the permit authority and was subsequently endorsed by USEPA/Region V. Further, in recognizing that the 2005 permit does not currently reflect recent regulatory developments, the Illinois EPA has committed to reopen the permit in the future to incorporate Clean Air Act requirements that have become applicable to the source since the

2005 permit issuance. Although such requirements have and will continue to remain independently enforceable, a permit reopening incorporating such requirements into a Title V permit should adequately address the concern expressed by the comment regarding perceived gaps in the CAAPP permit.

Comment III - The Proposed CAM Plan is Inadequate to Assure Compliance with PM Emission Limits.

The Kincaid Plant's emission units include two coal-fired boilers, Boilers 1 and 2. The Boilers are subject to Condition 7.1.4(b), setting out a one-hour average particulate matter ("PM") emission limit of 0.10 lb/mmBtu of actual heat input for both Boilers 1 and 2. This limit is incorporated from Illinois' State Implementation Plan ("SIP") at 35 IAC 212.202.

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.

As noted in the Statement of Basis, the CAM rule in 40 CFR Part 64 is applicable to the Boilers' PM emissions due to Kincaid Generation's submission of an application for significant modification of conditions related to the Boilers. (See Statement of Basis at 6) (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 Kincaid Generation, LLC and set out in Table 7.1.13. The proposed CAM plan would require monitoring of the operation of one PM control device: the Kincaid Plant's electrostatic precipitator ("ESP"). (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 lb/mmBtu PM limit.").

The sole proposed indicator for the proper operation of the ESP is the percentage of opacity in the flue gas stream in the Boiler's shared stack. (See *id.*). The opacity of the flue gas stream is measured by a continuous opacity monitoring system ("COMS") installed in the stack. (*Id.*; Statement of Reasons at 49 n. 76). The indicator range to provide a reasonable assurance of compliance is proposed to be based on the percentage of opacity measured by the COMS, averaged over three-hour block periods. (*Id.*). The proposed plan does not specify the percentage of opacity that would trigger responsive actions for the Boilers, but instead requires Kincaid Generation, LLC 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 derived from testing." (Conditions 7.1.13-1(a), (b)(1) and (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.

(Statement of Basis at 49).

The proposed CAM plan does not provide sufficient monitoring to assure proper operation and maintenance of the ESPs, and must be revised. Specifically, the plan must include: 1) a requirement for an indicator range that will demonstrate proper operation and maintenance of the Plant's ESPs; 2) monitoring of additional parameter(s) relating to the Plant's ESPs; and 3) practically enforceable responsive actions to excursions from the indicator range.

Comment III.A. - The CAM Plan's Monitoring of the ESPs is Not Designed to Assure Their Proper Operation.

There are two central problems with the CAM plan's proposed approach to monitoring the operation of the Kincaid Plant's ESP. 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 Kincaid Generation, LLC satisfies the criteria and requirements in 40 CFR 64.3 for the plan to be approved in accordance with 40 CFR 64.6(a). In particular, there is nothing in the comment that would demonstrate the parameter chosen (opacity) and the corresponding indicator range (less than 30% on an hourly block average) fails to fulfill the criteria in 40 CFR 64.3(a) for CAM Plans. In addition, the materials cited by the comment do not provide specific evidence, related to the operations at Kincaid Generating Station that would suggest the CAM Plan submitted is not approvable.

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).³ 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

³ Available at http://www.epa.gov/region7/air/title5/petitiondb/petitions/oak_creek_decision2007.pdf.

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.” (Statement of Basis at 49). 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). As set out in Section II, above, 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 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 2-27.⁴ 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)*

⁴ Available at <http://cfpub.epa.gov/oarweb/mkb/cam.cfm>.

Controlling Particulate Matter (PM) Emissions from a Coal-Fired Boiler, Proposed (Apr. 2003) (attached hereto as Exhibit A) (“ESP CAM Protocol”), at 6.⁵ 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.*

Id. (emphasis added).

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 Kincaid Plant is that the upper bound should be well below the Plant’s opacity limit of 30 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.

Such is the case with the Illinois SIP, which provides that a source’s violation of its opacity limit also is presumed to be a violation of its PM emission limit, unless contemporaneous stack testing under the same operating conditions shows that the unit is in compliance with the PM limit. 35 IAC 212.124(d)(2)(A). As such, the opacity indicator range for the Kincaid Plant should be set well below the Plant’s opacity limit of 30 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 212.202. 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.

⁵ Available at <http://cfpub.epa.gov/oarweb/mkb/cam.cfm>.

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

This comment is in regards to the acceptability of a procedure for setting an opacity indicator. The comment relies heavily on two basic points which are, 1) The permit record does not contain an adequate explanation or clear description of how the opacity indicator range will be derived and 2) Basing an opacity indicator range on three-hour block averages is inconsistent with the underlying PM limit which has a one hour averaging period. Illinois EPA disagrees on both points, as discussed below.

While standards or limits for opacity commonly address average opacity over a period of six minutes, based on a number of individual readings or measurements during such period, opacity can also be determined for shorter or longer periods, including on an hourly basis, as proposed by Kincaid Generating Station in the CAM Plan. In fact, 40 CFR 64.3(d)(3)(ii) states that the indicator range can be consistent with the opacity standard applicable to a source unless such indicator range fails to meet the criteria in 40 CFR 64.3(a) upon consideration of the type of control device and site specific factors. The SIP does suggest in 35 IAC 212.124(d)(2)(A) that a PM violation may be presumed based on an opacity exceedance, however, this cannot be demonstrated without an emission test at representative conditions and over the timeframe that is representative of the limit. Additionally, one 6 minute average of 30% opacity at the outlet of the ESP is not equivalent to 30% opacity 1 hour average. This is what the CAM Plan sets out to do in the absence of a formal emissions test. As demonstrated through a valid statistical analysis presented in the technical support document created by Illinois EPA, there is nothing to suggest that 30% would be a definitive PM violation or unacceptable to reasonably demonstrate compliance with the PM limits established by Kincaid Generating Station.

An additional point that was brought up in the comment is that US EPA states that any approved indicator range should not exceed the maximum opacity observed during the performance testing. However, it must be noted that this is specific to the ESP CAM Protocol which relies on a computer model to calculate an ESP control efficiency. The protocol actually says (as identified in the comment) that the opacity indicator that would

trigger the use of the computer model should not exceed that which was observed during the calibration of the computer model. This would make sense given that the opacity at any other level would simply mean that the modeling would not provide any further detailed information.

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.⁶ It is relevant that USEPA focuses 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

⁶ 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 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)]

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)

Given these provisions of the CAM rules, it was wholly appropriate for Kincaid to have selected opacity as the sole indicator related to the ESPs on the boilers. The fact that Kincaid did not include a second parameter (particularly corona power) for inclusion in the CAM plan does not show that the plan that was submitted should be found unacceptable. Likewise, the available data representing normal operation of the control devices results in an acceptable indicator range that will ensure ongoing compliance with the limitation. 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. Therefore, the Illinois EPA cannot justify the addition of any additional monitoring parameters at this time given the criterion has been satisfied.

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

Illinois EPA also should revise the CAM plan to include monitoring of other parameters of ESP performance in addition to opacity. Specifically, pursuant to USEPA guidance, the CAM plan should include monitoring of voltage and current for each ESP field.

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.

Ex. D, ESP CAM Protocol at 3. 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. *Id.* at 14. 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. Ex. A, ESP CAM Protocol at 4. *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”).⁷ In order to assure proper operation and maintenance of the Kincaid Plant’s ESP, Illinois EPA also should require parametric monitoring of voltage and current for each ESP field.

Response

The comment states that the Illinois EPA should revise the CAM Plan to include additional parameters that are indicative of ESP performance. The evidence provided to support such claim is USEPA guidance suggesting that the monitoring should also include voltage and current (corona power) for each ESP field. However, the addition of corona power would not strengthen the correlation any more than measuring opacity at the same location as PM. In fact, the corona power is not measured at the same location as PM just as in the case for opacity. 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 four points, 1) a statement in USEPA guidance regarding the inadequacy of opacity alone, 2) presumptively acceptable monitoring in 40 CFR 64.4(b)(5), 3) an example in the US EPA CAM Technical Guidance document and 4) the theoretical concept that PM emissions are impacted significantly by the physical characteristics of the emissions. Each of these points is not sufficient either alone or in combination to adequately justify the need to add a second parameter for CAM purposes.

⁷ Available at <http://cfpub.epa.gov/oarweb/mkb/cam.cfm>.

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.⁸ 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 Kincaid 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.⁹

Robust statistics do not mean that in all cases the indicator will accurately predict the parameter being estimated. Robustness is mainly driven by the influence of outliers and assumptions. The robust estimators can still have a reasonable efficiency even when the assumptions are only approximately met. In addition, most outliers are removed from the statistical evaluation as abnormal conditions that are not being modeled. Referencing to the technical document in the permit record that discusses Illinois EPA's verification methods to assure the reasonableness of the indicator chosen and the value of the indicator range, it is noted that although the relationship is not linear, the range of opacity during normal operations can be approximated with a linear model. In this document it is demonstrated, clearly, that the correlation is sufficient to provide a reasonable assurance of compliance.

Lastly, pertaining to presumptively acceptable CAM approaches found in the regulations, simply because a particular approach has been deemed by USEPA to be presumptively acceptable such that a rationale is not necessary to demonstrate that the requirements of 40 CFR 64.3 have been met, does not make a conclusory argument that the CAM Plan is unacceptable. In fact,

⁸ 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.

⁹ 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.

40 CFR 64.3(a)(1) provides that an owner or operator may obtain data from one or more parameters.

For the Kincaid boilers, the use of opacity as the CAM indicator will provide an effective means of assuring compliance with the applicable PM standards on an ongoing basis between the periodic emissions testing.

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 Kincaid Generation is to take in response to excursions of the indicator range. Essentially, the plan requires Kincaid Generation 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 and attached hereto as Exhibit B. The Huntley permit incorporates tiered responsive actions for the opacity indicator. (Ex. B, 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%. (*Id.*).

The CAM plan for the Kincaid Plant 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 conditions in the draft permit. This condition simply reiterates the relevant language in 40 CFR 64.7(d) (1) with respect to how Kincaid Generating Station must respond to excursions or exceedances identified pursuant to its CAM monitoring.¹⁰ As such, it is fully appropriate that this condition be 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 Kincaid Generating Station boilers. 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.¹¹

Moreover, when an exceedance or excursion is identified, a CAM Plan, as 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.^{12, 13}

¹⁰ 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 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.”

¹¹ Condition 72.2 .II.2.a of the Huntley permit, which addresses “Level One” actions, addresses 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.”

¹² 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).

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 unsupportable under federal and state law and should be revised:

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

Illinois EPA proposes to delete the requirement in Conditions 7.1.9(c)(ii) 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 7.1.9(c)(iii), that Kincaid Generation 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)¹⁴; *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].”) ¹⁵; *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)¹⁶; *In the Matter of Midwest Generation, LLC, Waukegan Generating Station*, EPA Administrator Order at 20 (Sept. 22, 2005)¹⁷ (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

¹³ 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.

¹⁴ Available at http://www.epa.gov/region4/air/permits/title5objectionletters/fl_objectionletters/TECO-FJGannon.pdf.

¹⁵ Available at http://www.epa.gov/region7/air/title5/petitiondb/petitions/huntley_decision2002.pdf.

¹⁶ Available at http://www.epa.gov/region7/air/title5/petitiondb/petitions/dunkirk_decision2002.pdf.

¹⁷ Available at http://www.epa.gov/region7/air/title5/petitiondb/petitions/midwest_generation_waukegan_decision2004.pdf.

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 30% opacity limit provided for in the Illinois SIP. While the Illinois SIP already provides that the Plant’s violation of its 30% opacity limit presumptively constitutes a violation of pertinent PM emission limits, 35 IAC 212.124(d)(2)(A), a lower enforceable opacity limit may be necessary to ensure compliance with PM emission limits and to conclusively demonstrate violations.

The proposed modification of Condition 7.1.9(c)(iii) that Kincaid Generation 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 30 percent is further insufficient to ensure compliance with the applicable PM limit. Again, the applicable PM limit is based on an hourly average. 35 IAC 212.202. Further, under the Illinois SIP, a violation of the Kincaid Plant’s 30 percent opacity limit also is presumed to be a violation of its PM emission limit, unless contemporaneous stack testing under the same operating conditions shows that the unit is in compliance with the PM limit. 35 IAC 212.124(d)(2)(A). If Illinois EPA retains the 30 percent opacity limit in this section, Kincaid Generation should be required to keep detailed records of any one-hour period with average opacity above 30 percent.

Response¹⁸

Illinois EPA disagrees that the proposed changes to Condition 7.1.9(c) would result in the Periodic Monitoring for the Kincaid Generating Station 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).^{19, 20} 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, 30 percent, 3-hour average, is now set as part of the Periodic Monitoring to assure compliance with the PM

¹⁸ The Illinois EPA response to this comment regarding 35 IAC 212.124(d)(2)(A) is addressed in response to Comment III.A.1.

¹⁹ 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;”

²⁰ 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.

standard for the Kincaid Generating Station boilers. This value takes the place of the statistical criterion or “method” that would have been required for the future establishment by Kincaid Generating Station of value(s) of opacity that would serve to assure compliance with the PM standard.²¹ The “alternative” approach to Periodic Monitoring for Kincaid Generating Station Boilers for PM that is now present in the modified permit is consistent with the relevant conclusion from the USEPA’s decision in *In the Matter of Midwest Generation, LLC, Waukegan Generating Station*.²² 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:

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.

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 Condition 7.1.4(b).”

Illinois EPA proposes to remove the requirement that Kincaid Generation 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.” (Statement of Basis at 24). 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

²¹ By way of further explanation, Kincaid Generation, LLC 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.” Kincaid Generation, LLC 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.

²² 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.

both Illinois EPA and the public to enforce other permit requirements. The Condition should be reinstated.

Response

As noted in the above 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 Kincaid Generating Station 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. It should be further noted that the condition in question was also revised to require the qualitative or if available quantitative magnitude of the exceedance to be included in the quarterly report. Therefore any available data, including COMS data, associated with an opacity exceedance would be included in the quarterly operating reports. The Illinois EPA does not believe the removed condition needs to be reinstated as requested in the comment.

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

Illinois EPA proposes to increase the length of an opacity exceedance that triggers Kincaid Generation'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." (Statement of Basis at 25). 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 Kincaid Generation 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 modified 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 Kincaid Generating Station to provide certain "incident specific" notifications and reports to the Illinois EPA for such incidents. All such incidents must also be reported by Kincaid Generating Station in its 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 Kincaid Generation, LLC 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 Kincaid Generating Station has begun shutdown of the boiler by such time.

Kincaid Generation, LLC appealed Condition 7.1.10-3(a)(i) in the initial permit. In the settlement negotiations, Kincaid Generation, LLC 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 Kincaid Generating Station 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 Kincaid Generating Station 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). Kincaid Generating Station 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 Kincaid Generating Station has been provided.

Conditions 7.2.6(a)(i), 7.3.6(a)(i), and 7.4.6(a)(i)—relating to control measures for coal handling, coal processing, and fly ash handling and storage.

Illinois EPA fails to require any specific control measures for coal handling, coal processing, or fly ash handling and 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, and therefore the permit does not contain sufficient requirements to assure compliance with the applicable opacity and PM limits, and must be revised.

Response

The revised conditions originated from settlement discussions involving the administrative appeal, which included legal challenges to various components of periodic monitoring for the coal handling, coal processing and fly ash handling operations. In comparison to the initial permit issued in 2005, the revisions were mostly stylistic in nature, with the primary aim of introducing the concept of “established control measures” from the record-keeping condition to the earlier inspection condition. The language of the revisions retained the intent of the original inspection condition allowing the Permittee to select the control measures used to prevent dust and, similarly, contained an illustrative list of the types of control measures that would be employed in this effort.

The Illinois EPA disagrees that the revised conditions lack specificity or are not practically enforceable. The permit issued in 2005, as well as the issued permit conditions, simply codify the use of dust control measures that have been employed by the power plants for quite some time. The Illinois EPA did not identify the specific control measures that will be used for each affected operation unit but, rather, placed the onus of such identification upon the source, who must identify such measures within 60 days of permit issuance and thereafter maintain an on-going record of the same. However, the permit does generally identify the control measures to be employed by the source, as they are described in both the equipment descriptions and equipment lists contained within the subject conditions. When coupled with the requirement to implement and maintain control measures,²³ which is a basic obligation of the permit to provide a reasonable means of periodic monitoring for the coal handling and processing activities, the permit clearly

²³ These requirements addressed by the comment are found in Conditions 7.2.6(a)(i), 7.3.6(a)(i) and 7.4.6(a)(i).

obligates the source to employ the use of control measures as so described or listed in the accompanying condition.²⁴

The revised conditions to the permit did not alter the substantive requirements of the work practices from the earlier permit. Notably, the same contentions regarding the lack of specificity and practical enforceability of those requirements were raised in earlier CAAPP proceedings. Such contentions were rejected by USEPA. The USEPA order responding to a petition to object involving Midwest Generation's Fisk facility observed that "some control measures" are to be implemented under the affected conditions, rejecting the notion that the company might choose to implement no control measures at all. USEPA's orders relating to the Fisk and Romeoville facilities also rejected the notion that the permits were unenforceable, holding that the work practices set forth in the affected conditions were "enforceable as a practical matter".

Notwithstanding the aforementioned, the Illinois EPA further notes, the language of the relevant conditions still generally reflects the language in the initial 2005 permit, with the simplifying clarification that the "control measures" identified in the recordkeeping provisions are now being addressed in lieu of "established control measures."²⁵ In addition, the recordkeeping requirements for the control measures are set out in more detail to ensure both enforceability and consistency with prior settlement discussions regarding the nature of the required record.

USEPA Comment 1.

The draft CAAPP permit is missing applicable requirements established in Condition 5(b) of Construction Permit 97080088, which was issued in 1999 for a project at the source. Condition 5(b) provides that inspections of the coal and ash handling equipment, including the control equipment, are to occur at least weekly. The draft CAAPP permit does not include this requirement. Instead, the draft permit would generally require monthly inspections for coal and ash handling equipment. (The only exception would be the loadout of fly ash, for which weekly inspections would be required.) The draft permit also would not include relevant language from Condition 5(b) that states that weekly inspections are required to "confirm compliance" with the numerical limits for PM emissions that apply to, among other things, the fuel silo baghouses that are addressed in Condition 4 of Construction Permit 97080088 and in Condition 7.2.6(b)(i) of the draft CAAPP permit.

²⁴ The Illinois EPA also did not establish whether, or which, control measures must always be operated, as doing so would contradict the intended use of such controls as necessary to assure compliance or on an as-needed basis.

²⁵ The use of "established" to describe the control measures was believed to be redundant and potentially confusing, as the record of the control measures would necessarily reflect those measures selected or established by the Permittee to minimize dust.

Response

This comment correctly observes that the draft of the modified CAAPP permit would not include requirements from a condition in Construction Permit 97080088 that applied to the two baghouses that control the particulate emissions of the tripper rooms.²⁶

In the permit that has been issued, Condition 7.2.8(a) more clearly identifies and addresses the differences between this condition and Condition 5b of Construction Permit 97080088. These changes were processed as an additional significant modification to the CAAPP Permit for Kincaid Generating with a supplemental public comment period that ended on December 26, 2014.

To address the comment regarding inspection frequency, Condition 7.2.8(a) was split into two separate provisions. Condition 7.2.8(a)(i) addresses the routine inspections of all coal handling operations at the source except the two baghouses that control emissions from the Tripper Rooms on the North and South Coal Silo Bays. Condition 7.2.8(a)(ii) addresses the routine inspections of these baghouses.²⁷ The actual requirements associated with these inspections were unchanged compared to those in the draft of the modified permit. However, addressing the inspection requirements for the two baghouses in a separate provision enabled the CAAPP permit to recognize a difference in the required frequency of routine inspections compared to the frequency required by the construction permit for these baghouses.²⁸ The CAAPP permit requires that inspections be conducted on at least a monthly basis, whereas the construction permit requires these inspections to be conducted on at least a weekly basis.²⁹ This condition is identified as a "Title I revision" by including the designation "T1R" following the explanatory language.^{30, 31}

²⁶ The tripper rooms are located on the top of the four coal silo bays that hold coal for the two coal-fired boilers. The tripper rooms contain various conveyor belts, diverters and chutes that direct the coal that is received from the crusher house into the individual silos that hold the coal until it is fed to the boilers. Each tripper room serves 7 silos, with 14 silos for each boiler for a total of 28 silos.

²⁷ The additional changes to the CAAPP permit would not involve Condition 7.2.8(b), which requires inspections of these baghouses and other baghouses for coal handling operations on at least an annual basis.

²⁸ Construction Permit 97080088 addressed planned changes to the Kincaid Generating Station that accompanied a switch from low-sulfur coal from Utah to low-sulfur coal from the Powder River Basin. For the coal handling operations, this permit addressed installation of two baghouses that would replace the Rotoclone scrubber systems on the tripper rooms.

²⁹ The frequency of required routine inspections for these baghouses is unchanged from the initial CAAPP permit for the source issued in 2005. The initial CAAPP permit also specified that these inspections be conducted on at least a monthly basis.

³⁰ The designation "T1" following a condition in a CAAPP permit generally indicates that the condition contains a "Title I condition", which was originally established pursuant to requirements or authority found in Title I of the Clean Air Act. Most commonly, such conditions are established in construction permits issued by the Illinois EPA, as are required by Section 110(a)(2)(C) of the Clean Air Act. The designation "T1R" further indicates that the previous T1

Changes were also made to Condition 7.2.6(b)(i) of the CAAPP Permit for Kincaid to clarify the equipment to which the limits for emission of particulate matter in Condition 4 of Construction Permit 97080088 apply. Condition 7.2.6(b)(i) of the CAAPP permit, which contains these limits, would specifically apply to the "baghouses for the tripper rooms on the North and South Coal Silo Bays", rather than to the "fuel silo baghouses".³²

Similar changes are also made to Conditions 7.2.9(g) of the CAAPP permit. This condition requires the source to keep records for the monthly and annual emissions of particulate matter to verify compliance with the emission limits in Condition 7.2.6(b). These records would now be required for "each baghouse for the tripper rooms on the North and South Coal Silo Bays," rather than for "each fuel silo (baghouse)".

This change in inspection frequency is considered to be appropriate because the CAAPP permit now includes substantive periodic monitoring requirements for coal handling equipment. Specifically refer to permit conditions in Section 7.2.6 for work practices, operational and production limits, and emission limitations; Section 7.2.7 for opacity observation requirements; Section 7.2.8 for inspection requirements; 7.2.9 for recordkeeping requirements; and 7.2.12 for compliance procedures associated with periodic monitoring requirements.

Additional details regarding the above changes are provided in the Supplemental Statement of Basis that accompanied the draft permit during the supplemental public comment period.

With respect to the phrase "to confirm compliance" in Condition 5(b) of Construction Permit 97080088, this language was not added to Condition 7.2.8(a). This concept is already included in the CAAPP permit. It is found in Conditions 7.2.12 of the CAAPP permit, which identifies the various elements of the periodic monitoring contained in the permit for coal handling operations. This condition indicates that compliance with the

condition has been revised by the Illinois EPA during the issuance of the CAAPP permit using its authority under Title I of the Clean Air Act.

³¹ While the Illinois EPA is addressing USEPA's comments by identifying this condition in the CAAPP permit as a revision to a Title I condition, it should be understood that this action would be taken for the purpose of not further delaying the resolution of the CAAPP appeal for the Kincaid Generating Station and with the concurrence of Kincaid Generation. Using this approach for any difference in compliance provisions would pose a serious concern for the implementation of CAAPP permitting by the Illinois EPA, given the additional resources that would be needed and the effect on timing of CAAPP permit applications.

³² The Illinois EPA does not plan to change the designation of this condition from "T1" to "T1R". This is because the change to this condition only makes the requirement established in the construction permit clearer and more readily implemented.

substantive requirements that apply to the opacity and PM emissions of these operations is to be addressed by, among other things, the periodic inspections of operations that are required by Conditions 7.2.8 of the CAAPP permit. (See Condition 7.2.12(b).³³) Given the organization or structure of the CAAPP permit for the Kincaid Generating Station, it would not be appropriate to now state in each provision of this permit that contains an element of the periodic monitoring for this source that the purpose of that provision is "to confirm compliance". This would only restate what is already indicated by the statutory authority cited in each of those provisions. Moreover, this phrase would need to be included in all provisions of this CAAPP permit that contain periodic monitoring requirements. Otherwise, it would imply some difference between the provisions that include this phrase and the provisions that do not include this phrase.³⁴

USEPA Comment 2

The draft CAAPP permit does not specify a minimum set of control measures to be applied to coal handling, coal processing, and fly ash equipment to assure continuous compliance with applicable opacity and PM limits.

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, 7.3.4 and 7.4.4.³⁵ The draft permit states that the Permittee shall implement and maintain "the control measures" for the affected operations, which apply to coal handling, coal processing 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.³⁶

As written, the draft CAAPP permit does not require the Permittee to use any specific control measures for coal handling and processing 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, coal processing and fly ash handling equipment.³⁷ In addition, the draft permit does not provide the public with the opportunity to

³³ For example, as related to the limits on particulate emissions of the new baghouses on the four coal silo bays that were established in Condition 4 of Construction Permit 97080088 and that are restated in Condition 7.2.6(b)(i) of the CAAPP permit, Condition 7.2.12(c) of the initial CAAPP permit states that, "Compliance with Condition 7.2.6(b) is addressed by the testing, inspections and recordkeeping required by Conditions 7.2.7(b), 7.2.8, and 7.2.9, respectively."

³⁴ If the phrase "to confirm compliance" were only included in certain provisions of the permit for periodic monitoring and not in others, the obvious implication would be that the provisions without this phrase were not established to assure compliance with substantive requirements.

³⁵ See Conditions 7.2.6, 7.3.6 and 7.4.6

³⁶ See, e.g., Condition 7.2.9(b)(iii).

³⁷ See, generally, Conditions 7.2.8, 7.3.8, and 7.4.8.

meaningfully comment on the selected control measures.

To address these concerns, we request that Illinois EPA:

- a. Revise Conditions 7.2.6(a)(i), 7.3.6(a)(i) and 7.4.6(a)(i) to specify the minimum set of control measures for the coal handling, coal processing, and fly ash handling equipment;
- b. Revise Conditions 7.2.9(b)(i) and (ii), 7.3.9(b)(i) and (ii) and 7.4.9(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.³⁸

Response

The permit conditions addressed by the comment require Kincaid Generating Station to implement control measures on the affected operations, as well as to “operate and maintain” those measures on an on-going basis.³⁹ The permit also requires Kincaid Generating Station to create and maintain a list of various control measures being implemented,⁴⁰ which are currently identified in the permit as natural surface moisture, various dust suppressants, enclosures and covers,⁴¹ and to apprise the Illinois EPA of revisions to the list.⁴² The associated inspection and recordkeeping requirements⁴³ 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.

As noted in the previous response, 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,⁴⁴ the use of control measures was deemed appropriate as one component of periodic monitoring

³⁸ This is appropriate since the current permit will require the submittal of full documentation to support the selected control measures

³⁹ See, Conditions 7.2.6(a)(ii), 7.3.6(a)(ii) and 7.4.6(a)(ii).

⁴⁰ See, Conditions 7.2.9(b), 7.3.9(b) and 7.4.9(b).

⁴¹ See, Conditions 7.2.1 and 7.2.2, Conditions 7.3.1 and 7.3.2, and Conditions 7.4.1 and 7.4.2.

⁴² See, Conditions 7.2.9(b)(iii), 7.3.9(b)(iii) and 7.4.9(b)(iii).

⁴³ See, Condition 7.2.8 and 7.2.9, Condition 7.3.8 and 7.3.9, and Condition 7.4.8 and 7.4.9 respectively.

⁴⁴ 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.

for the affected operations.⁴⁵ This requirement provided a reliable means of verifying compliance with the emission standards that apply to the affected operations (i.e., visible and fugitive emissions).⁴⁶ The legal basis for the control measures is derived from the authority of Section 39.5(7)(a) of the Act but 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 Plan⁴⁷ and certain New Source Performance Standards.⁴⁸ 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.

The Illinois EPA's approach to periodic monitoring in the CAAPP permit for the affected operations is similar to the regulatory framework described above. However, the Illinois EPA opted against requiring 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 is unnecessary given the limited purpose meant to be served by the control measures (i.e., periodic monitoring).⁴⁹

⁴⁵ 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).

⁴⁶ See, Conditions 7.2.4, 7.3.4 and 7.4.4.

⁴⁷ See, 35 IAC Part 212.309.

⁴⁸ See, 40 CFR Part 60 Subpart Y.

⁴⁹ In addition, an attempt to impose such requirements would potentially raise dubious questions of legal authority, as USEPA and federal courts alike have recognized the general rule that Title V permit authorities may not create new substantive requirements. 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 ensure, for purposes of any future permit action, that the use of control measures being implemented by the source consistent with applicable permit requirements.

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.^{50 51}

USEPA Comment 3.

The frequency of the required VE observations from coal handling equipment, coal processing equipment, and fly ash equipment is inadequate to assure continuous compliance with applicable opacity and PM limits.

The draft CAAPP permit contains inspection requirements for the coal handling, coal processing, and fly ash equipment.⁵² These include monthly inspections of the coal handling, coal processing and fly ash equipment, and weekly 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

During the planned reopening process, once Illinois EPA has the information regarding the control measures discussed in Comment 2, Conditions 7.2.8(b), 7.3.8(b), and 7.4.8(b) should 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.

⁵⁰ 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.

⁵¹ 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 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.

⁵² See Conditions 7.2.6, 7.3.6 and 7.4.6

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.⁵³ 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 approach to periodic monitoring crafted for the subject equipment in 2005, centering around the work practice requirement for the use of control measures, was both sound and practical.⁵⁴

A key component of the periodic monitoring is an on-going requirement that Kincaid Generating Station 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,⁵⁵ is now codified in the permit, although various uses of control measures have long been practiced by Kincaid Generating Station and the other utility sources.⁵⁶

The use of control measures is accompanied by periodic verifications that must be formally undertaken by the source.

⁵³ 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.

⁵⁴ 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.").

⁵⁵ 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.

⁵⁶ 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.

Detailed records must be maintained for each instance in which an affected operation/process operates without the presence of the designated control measures.⁵⁷ Deviations from the requirement to operate and maintain control measures must also be reported.⁵⁸ 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.⁵⁹

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 Kincaid Generating Station 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 does not justify changes to the frequencies of the formal inspections specified by the permit.⁶⁰

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 crushers which are located in a closed building.⁶¹ For such

⁵⁷ 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), 7.3.9(d) and 7.4.9(e).

⁵⁸ 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), 7.3.10(a)(ii) and (iii)(A), and 7.4.10(a)(ii) and (iii)(A).

⁵⁹ 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), 7.3.9(c) and 7.4.9(d).

⁶⁰ Formal inspections of the coal handling equipment, coal processing equipment, and certain fly ash equipment are required monthly pursuant to Conditions 7.2.8(a), 7.3.8(a), and 7.4.8(a)(i), respectively. Inspections of fly ash load-out operations are required weekly pursuant to Condition 7.4.8(a)(ii).

⁶¹ 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 that operate under negative pressure.

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.

USEPA Comment 4

The draft CAAPP permit language should allow for the 30% 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 opacity to PM that indicates the need for a number that is more stringent than the established limit of 30%, 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(a), which is 35 IAC 212.123, 30% opacity. Changing the 30% value in this condition would establish a new emission standard, which is not provided for by Title V of the CAA.

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.⁶² 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 212.202, 0.10 lb/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 30%. This value of opacity will be added

⁶² 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."

in the conditions dealing with CAM in the revised permit that is issued pursuant to the Re-Opening Proceeding.

F. COMMENTS DURING SUPPLEMENTAL PUBLIC COMMENT PERIOD WITH RESPONSES BY THE ILLINOIS EPA

Comment 1 – Condition 7.1.9(c)(ii)(B)

Condition 7.1.9(c)(ii)(B) relates to the records that must be kept for the continuous opacity monitoring systems. As drafted, the condition (emphasis added) requires the permittee to maintain records of any information that “shows that the PM [(particulate matter] emissions of [an] affected boiler(s) did not exceed” the applicable PM limit during specified periods of opacity exceedance. This is consistent with the Illinois State Implementation Plan (“SIP”), which provides that opacity exceedances at coal-fired power plants are presumed to constitute a violation of the applicable PM limit. 35 IAC 212.124(d)(2)(A). An opacity exceedance during which the applicable PM limit is not violated is, therefore, an outlying case and should be specially justified by the permittee.

The proposed modification reverses the presumption, providing that the permittee should maintain information only if it shows that the PM emissions of an affected boiler did exceed (or likely exceeded) the PM limit during an opacity exceedance. This modification removes the burden on the permittee to preserve records it might try to use to exculpate itself for PM violations. Instead, the permittee need only retain records that would show PM violations. However, the permittee does not appear to be required by the permit to generate such records, and would have no incentive to do so. The proposed modification therefore relaxes recordkeeping requirements in a manner inconsistent with the Illinois SIP, and should be rejected.

Comment 2 – Condition 7.1.10-2(d)(v)

Condition 7.1.10-2(d)(v) relates to information that must be reported regarding opacity and PM exceedances of the coal-fired boiler. As originally drafted, the condition specified in detail the information that must be reported in order to explain the reason for the exceedances, as well as actions that could be taken in order to prevent the exceedances in the future. This condition was appropriate, as PM and opacity exceedances violate federal and state law under the Illinois SIP. *See* 35 IAC 212.123; 212.201 *et seq.* In addition to “enforceable emission limitations and standards[,] . . . [e]ach permit issued under [Title V] shall set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions.” 42 U.S.C. § 7661c(a), (c). If a facility is violating the Illinois SIP through opacity and PM exceedances, the permittee should be required to provide detailed information about the nature of those exceedances and the strategies that may be undertaken for compliance.

The proposed modification would improperly remove the detailed description of the required information, and removes entirely the requirement to describe all compliance actions that are being “considered,” (see original Condition 7.1.10-2(d)(v)(A)), as distinct from those activities that are actively being “planned” (see proposed Condition 7.1.10-2(d)(v)(C)). The proposed

modification therefore relaxes reporting requirements in a manner inconsistent with the Illinois SIP, and should be rejected.

For the foregoing reasons, Illinois EPA should issue a revised Significant Modification for public review and comment. Illinois EPA should also commit to a prompt permit reopening to incorporate requirements that have become applicable to the source since the permit's original issuance in 2005.

Response to Both Comments

For the purposes of achieving permit effectiveness and appeal resolution, the Illinois EPA did not include the planned changes that were the subject of these comments in the issued CAAPP permit. The issued permit reflects the same language that was in the draft of the modified permit for the initial public comment period in July 2014.⁶³ For this reason the Illinois EPA is not responding to the merits of these comments.

⁶³ Should Kincaid Generation in the future apply for a modification to Condition 7.1.9(c)(ii)(B) or 7.1.10-2(d)(v) of its CAAPP permit to make the changes that were addressed by the Supplemental Public Comment Period or other similar changes, the Illinois EPA would appropriately review and respond to that request.

G. FOR ADDITIONAL INFORMATION

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

Bradley Frost, Community Relations Coordinator
Illinois Environmental Protection Agency
Office of Community Relations
1021 North Grand Avenue, East
P.O. Box 19506
Springfield, Illinois 62794-9506

217-782-7027 Desk line
217-782-9143 TDD
217-524-5023 Facsimile

brad.frost@illinois.gov