

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter of:)
)
AMENDMENTS TO) R2018-20
) (Rulemaking – Air)
35 ILL. ADM. CODE 225.233,)
MULTI-POLLUTANT STANDARDS (MPS))

NOTICE OF FILING

PLEASE TAKE NOTICE that I have filed today with the Illinois Pollution Control Board the attached **ENVIRONMENTAL GROUPS' PREFILED QUESTIONS FOR RORY DAVIS, ENGINEER, AIR POLLUTION CONTROL DIVISION, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY**, copies of which are served on you along with this notice.

Respectfully Submitted,



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Dated: January 2, 2018

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**ENVIRONMENTAL GROUPS’ PREFILED QUESTIONS FOR RORY DAVIS,
ENGINEER, AIR POLLUTION CONTROL DIVISION, ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY**

I. Basis for the Rulemaking

1. In the Illinois Environmental Protection Agency’s (“IEPA’s”) Technical Support Document (“TSD”) you state “the EGUs affected by this rulemaking are currently meeting their fleetwide average emission rates.” IEPA, *Technical Support Document for Proposed Rule Amendments for Multi-Pollutant Standards Electrical Generation Units, AQPSTR 17-06* at 6 (Sept. 2017).
 - a. If the affected EGUs are meeting the requirements of the rule, why is a revision justified? Why is it necessary?
2. For this rulemaking you state “Dynergy informed the Agency that in recent years the structure of the current [Multi-Pollutant Standards] (“MPS”) has led to the company operating some units at a financial loss in order to operate other units in their MPS Groups. This leads to distortions in the power market, grid inefficiencies, and possibly increased overall emissions.” TSD at 5.
 - a. What exactly is meant by “financial loss” in this context?
 - i. How is “financial loss” calculated?
 - ii. Did Dynergy make any demonstration to IEPA that the structure of the current MPS has led the company to operate units at Baldwin, Coffeen, Duck Creek, Edwards, Havana, Hennepin, Joppa, or Newton (“Proposed MPS Group”) at a financial loss?
 1. If yes, how did Dynergy make this demonstration?
 2. If yes, can you please provide a written copy of this demonstration?

- iii. Did IEPA conduct any independent analysis to see if the structure of the current MPS has led the company to operate units in the Proposed MPS Group at a financial loss?
 - 1. If yes, how was this analysis conducted?
 - 2. If yes, can you please share your findings and calculations?
 - 3. If no, why did IEPA not conduct an independent analysis?
 - iv. Which units were/are being run at a financial loss?
 - v. Why does IEPA need to resolve the concern of Dynegy's operating "some units" at a financial loss? How is that a part of IEPA's mission?
 - vi. Did IEPA verify that operating "some units" at a financial loss meant that Dynegy was operating the whole Illinois fleet at a financial loss? What about the company as a whole?
- b. What exactly is meant by "distortions in the power market" in this context?
- i. Can you please provide examples of distortions in the power market that have resulted from the current MPS?
 - ii. Did Dynegy make any demonstration to IEPA that the structure of the current MPS has led to distortions in the power market?
 - 1. If yes, how did Dynegy make this demonstration?
 - 2. If yes, can you please share a written copy of this demonstration?
 - iii. Did IEPA conduct any independent analysis to see if the structure of the current MPS has led to distortions in the power market?
 - 1. If yes, how was this analysis conducted?
 - 2. If yes, can you please share your findings and calculations?
 - 3. If no, why did IEPA not conduct an independent analysis?
- c. What exactly is meant by "grid inefficiencies" in this context?
- i. Can you please provide examples of grid inefficiencies that have resulted from the current MPS?

- ii. Did Dynegy make any demonstration to IEPA that the structure of the current MPS has led to grid inefficiencies?
 - 1. If yes, how did Dynegy make this demonstration?
 - 2. If yes, can you please share a written copy of this demonstration?
- iii. Did IEPA conduct any independent analysis to see if the structure of the current MPS has led to grid inefficiencies?
 - 1. If yes, how was this analysis conducted?
 - 2. If yes, can you please share your findings and calculations?
 - 3. If no, why did IEPA not conduct an independent analysis?
- d. IEPA stated that the structure of the current MPS “possibly” could lead to increased overall emissions.
 - i. Can the agency confirm whether this in fact leads to increased emissions? If not, why not?
 - ii. Can you please provide examples of or explain how the current MPS may have led to increased overall emissions?
 - iii. Did Dynegy make any demonstration to IEPA that the structure of the current MPS has led to increased overall emissions?
 - 1. If yes, how did Dynegy make this demonstration?
 - 2. If yes, can you please provide a written copy of this demonstration?
 - iv. Did IEPA conduct any independent analysis to see if the structure of the current MPS has led to increased overall emissions?
 - 1. If yes, how was this analysis conducted?
 - 2. If yes, can you please share your findings and calculations?
 - 3. If no, why did IEPA not conduct an independent analysis?
 - v. Is it correct that if there are in fact no increased overall emissions as a result of the revisions to the MPS, there would also be no

environmental benefit to those revisions? If this is not correct, what would be the environmental benefit?

- vi. Assume that the scrubbed units are being operated in order to operate units with higher emission rates and bring down the fleetwide average to achieve the MPS rate as indicated in the TSD. *See* TSD at 5. If the electricity generated by the units with lower emission rates is being sold and these units are displacing some MWs from other Dynegy units (or displacing some capacity from other higher-emitting Dynegy units), isn't the MPS effectively bringing down the fleetwide average? And isn't the MPS in this scenario operating as intended—to bring down the fleetwide average where market incentives alone would not do so?
3. Is it or was it IEPA's understanding that some Dynegy/IPH plants were being run exclusively for the purpose of bringing down the fleetwide average emissions rate (above and beyond demand not just for the plant but for the fleet) and achieving the MPS average? If so:
 - a. Is/was it IEPA's understanding that this is/was causing excess/unnecessary emissions? If so:
 - i. How is/was IEPA aware of this?
 - ii. Did IEPA receive any documentation from Dynegy about this happening?
 - iii. Did IEPA conduct any independent analysis to determine whether this was happening?
 - b. Is/was it IEPA's understanding that capacity is/was not being used/sold into the power market, thus is/was not displacing other MWs? If so:
 - i. How is/was IEPA aware of this?
 - ii. Did IEPA receive any documentation from Dynegy about this happening?
 - iii. Did IEPA conduct any independent analysis to determine whether this was happening?
 4. Is/was it IEPA's understanding that scrubbed units in the proposed MPS group have been operated when the power from those units could not be and was not sold on the market?

5. Is/was it IEPA's understanding that scrubbed units in the Proposed MPS Group have displaced other Dynegy sources when operated to bring down the average?
6. In your testimony, you state that the proposed rule will "simplify compliance." *Testimony of Rory Davis* at 1 (Dec. 11, 2017) ("Davis Testimony").
 - a. What do you mean by "simplify compliance?"
 - b. How does this proposed rule simplify compliance?
 - c. Why is it necessary to simplify compliance with a rule that has been in place for more than ten years?
7. In your testimony, you state that the amendments "have been proposed to provide operational flexibility that Dynegy has stated is necessary due to changes in the electricity market and its EGU fleet since the original MPS was promulgated." *Davis Testimony* at 4.
 - a. What exactly do you mean by "operational flexibility?"
 - b. Did IEPA request any analyses and modeling to demonstrate this operational flexibility was necessary? If no, why not?
 - c. Did Dynegy provide any analyses and modeling to demonstrate this operational flexibility was necessary? If so, can you please provide this information?
 - d. Is it IEPA's understanding that operational flexibility for Dynegy would entail operating its pollution control equipment less (either operating a unit without its pollution control equipment or operating a unit with pollution control equipment less)?
8. In your testimony you state that "the proposed amendments require affected units that currently have selective catalytic reduction [{"SCR"}] control devices to operate those controls at all times when the units are in operation." *Davis testimony* at 4.
 - a. What is the origin and/or regulatory basis of that requirement?
 - b. Why is there not a parallel requirement for scrubbers?
 - c. Your testimony states this SCR requirement is in part "To ensure that these units would continue to operate existing controls." *Id.*
 - i. Why does this goal not apply to existing controls in the form of scrubbers?

- ii. The phrase “continue to operate with emission rates that are considered well controlled” is referring to a rate based emission rate, correct? Not an annual tonnage, right?
 - iii. Why does this rationale not apply to sulfur dioxide (“SO₂”) emissions rates on units with scrubbers?
- 9. Is it your understanding that each MPS unit is subject to multiple nitrogen oxides (“NO_x”) and SO₂ emission standards?
 - a. What are the relevant permit limits for each of the referenced emissions standards for each plant in the proposed combined MPS group? Please indicate whether each is hourly or annual.
 - b. If there are multiple emissions standards for NO_x and SO₂ for each MPS unit, why are there redundancies?
 - c. If IEPA’s proposed revisions to the MPS rules are adopted, would any of these redundancies be eliminated?
 - i. If not, how is this consistent with the MPS statement of reasons?

II. **Mass-based vs. Rate-based Emissions Limits**

- 1. In your testimony you state: “The amendments to change fleet-wide rate-based emission standards to mass-based emission limits is intended to provide Dynegy operational flexibility and regulatory certainty moving forward while also reducing the overall allowable emissions from the MPS group.” Davis Testimony at 2.
 - a. Can IEPA explain what regulatory uncertainty Dynegy is experiencing?
 - b. How is an unchanging rate-based limit (whether it is .19 or .23 lb/MMBtu SO₂) causing regulatory uncertainty?
 - c. Do mass-based emissions limits provide regulatory certainty? If so, how so?
 - d. Do fleet-wide rate-based limits provide less regulatory certainty than mass-based limits? If so, how?
 - e. Why did IEPA propose and select a fleetwide rate-based emissions level—as opposed to a mass-based level—in the original MPS?
- 2. What was the benefit of the original fleetwide rate-based emissions limit used in the MPS?
- 3. With the change to a mass-based (fleetwide except for Joppa) emissions limit:

- a. Is it possible for a plant to generate less electricity than it did for the same period of time under the previous fleetwide rate-based limit, but then emit at a higher rate-based emission level and have the same annual emissions?
 - b. Is it possible for a plant to operate for fewer hours than it did under the previous fleetwide rate-based limit, but then emit at a higher rate-based emission level and have the same annual emissions?
 - c. Is it possible for a scrubbed plant to operate less and not use its scrubber, yet have the same annual emissions than it does under the current rate-based standard?
4. Would the proposed annual mass-based limit allow Dynegy to:
- a. Use its pollution controls less than it does under the current MPS regulations?
 - b. Run its scrubbers less than it does under the current MPS regulations?
 - c. Operate its pollution controls less efficiently than it does under the current MPS regulations?
5. Why did IEPA select 55,000 tons as the mass-based emission cap for SO₂?
- a. Can you please provide the analysis that led to this selection?
6. Did IEPA ever consider any mass-based emissions caps for SO₂ lower than 55,000 tons? If so:
- a. What were these limits?
 - b. Why did IEPA initially consider these limits?
 - c. Why did IEPA choose not to use these limits?
7. Why did IEPA select 25,000 tons as the mass-based emission cap for nitrogen oxides (“NO_x”)?
- a. Can you please provide the analysis that led to this selection?
8. Did IEPA ever consider any mass-based emissions caps for NO_x lower than lower than 25,000 tons? If so:
- a. What were these limits?
 - b. Why did IEPA initially consider these limits?

- c. Why did IEPA choose not to use these limits?
9. Is it IEPA's understanding that plants may be less expensive to operate with their scrubbers turned off?
10. Has Dynegy stated to IEPA that it may operate its scrubbers less for units in the Proposed MPS Group under this new rule?
- a. If so, did Dynegy provide any justification for why it may operate its scrubbers less under this new rule?
 - i. What was this justification?
 - ii. Does IEPA agree with this justification?
11. Has IEPA considered whether under the proposed MPS revisions Dynegy may operate any of its scrubbed units in the Proposed MPS Group without running their scrubbers?
- a. Would IEPA have any concerns if Dynegy were to do so? If not, why not?
12. Has Dynegy stated to IEPA that it may retire or mothball its units with scrubbers in the Proposed MPS Group under this new rule?
- a. If so, did Dynegy provide any justification for why it may retire or mothball its units with scrubbers under this new rule?
 - i. What was this justification?
 - ii. Does IEPA agree with this justification?
13. Has IEPA considered whether under the proposed MPS revisions Dynegy may retire or mothball units with scrubbers in the Proposed MPS Group?
- a. Would IEPA have any concerns if Dynegy were to do so? If not, why not?
 - b. Has IEPA considered the implications that this might have for local air quality? If so, can you please provide a copy of any analyses and conclusions on this matter?
14. In Table 6 of the TSD, you indicated several yearly decreases in SO₂ emissions at the Baldwin and Havana plants. *See* TSD at 9.
- a. Can you please confirm that the three entries for Baldwin are for Units 1, 2, and 3 in ascending order?
 - b. In the first row for Baldwin, there was a decrease in emissions from 2011 to 2012; in the second row for Baldwin, there was a decrease in emissions from 2012 to

2013; in the third row for Baldwin, there was a decrease in emissions from 2010 to 2011; and in the entry for Havana, there was a decrease in emissions from 2012 to 2013.

- i. Can IEPA explain the major factors that contributed to these decreases in emissions?
 - ii. Is one of the factors that contributed to these decreases in emissions the installation of scrubbers?
 - iii. If the MPS regulations are revised to eliminate a rate-based emission limit, could Dynegy operate one or more of these units with the scrubbers turned off?
 - iv. Has IEPA considered that Dynegy may be incentivized to operate its units without scrubbers if the rate-based fleetwide limits are removed?
 1. If so, and in light of the incentives, how did IEPA still consider the revision to deliver an environmental benefit?
 - a. Can IEPA justify this environmental benefit in terms other than annual allowable emissions?
 - b. Can IEPA calculate or identify this benefit in rate-based lbs/mmBtu terms?
15. Has IEPA calculated the highest possible fleetwide rate-based emissions rates in lbs/MMBtu under its proposed revision to the MPS? If so:
 - a. What is the highest possible rate?
 - b. Can you please share these calculations?
16. Is true that under IEPA's proposal, the more that units in the MPS group retire or are mothballed (or the less the units run), the higher the rate of emissions for the remaining units could go in lb/mmBtu?
17. If IEPA's proposal to revise the MPS is adopted, could the fleetwide average rate of emissions exceed what the fleetwide average emissions rates were before the MPS was adopted?
18. Could implementing this proposal undo all the emissions reductions (on a rate basis) that were achieved by the MPS?

III. Allowable Emissions vs. Actual Emissions

1. Did IEPA do any air quality analysis of the impacts of the change to the rule?
 - a. If not, why was there no analysis?
 - b. If so:
 - i. Can you please provide us with a copy of this analysis?
 - ii. Was that air quality analysis based on actual emissions or allowable emissions?
 - iii. If it was based on allowable emissions, why was it not based on actual emissions?
2. Did IEPA ever consider basing its proposed changes on actual emissions rather than allowable emissions? If so, why did IEPA decide not to base it on actual emissions?
3. IEPA's June 2011 original Regional Haze submittal and its February 2017 Five-Year Progress Report forecasted or referenced actual emissions, which the reports also referred to as "projected emissions." What would explain the inconsistent approach IEPA is taking regarding whether it analyzes actual emissions?
4. How does IEPA plan to address the fact that U.S. EPA used expected actual emissions as a basis for its Regional Haze SIP decision-making?
5. In IEPA's view, do actual emissions matter when considering the implications of this rulemaking proposal?
6. When considering this rulemaking, how much weight and/or importance did IEPA assign to actual emissions compared to allowable emissions?
7. Did IEPA do any modeling of the impacts of the change to the rule?
 - a. If not, why was there no modeling?
 - b. If so:
 - i. Can you please provide us with a copy of this analysis?
 - ii. Was that air quality analysis based on actual emissions or allowable emissions?

- iii. If it was based on allowable emissions, why was it not based on actual emissions?
8. Did IEPA look at actual emissions and how they would be affected by a change to the MPS? If so:
- a. Can you please provide us with a copy of this analysis?
- If not:
- a. Why did IEPA not conduct this modeling?
9. Considering that a lot of other factors including natural gas prices and weather affect actual emissions:
- a. Did IEPA model or calculate actual emissions while holding/assuming all of these other factors stay constant? If so, can you please provide us with a copy of this analysis?
 - b. Did IEPA consider modeling or calculating actual emissions while holding/assuming all of these other factors stay constant? If this was considered but not employed, why did IEPA choose not to model in this way?
 - c. Did IEPA consider how this change to the MPS alone would affect actual emissions while holding/assuming all of these other factors stay constant? If so, can you please provide us with a copy of this analysis?
10. IEPA has argued that the rule will reduce overall allowable emissions. Can the same be said of actual emissions?
11. Under the proposed rule:
- a. Could there be an increase in fleetwide rate-based emissions compared to current levels?
 - b. Could there be an increase in actual emissions compared to current levels?
12. Under the previous version of the rule, while there could be an increase in actual emissions, there could not be an increase in fleetwide rate-based emissions, correct?
13. In Table 1 of the TSD you list that Joppa's current allowable emissions based on its nominal capacity and MPS rate is 13,902 TPY (2,317 * 6). TSD at 9. Why is Joppa's limit under IEPA's MPS proposal 19,860, TSD at 6, and not the lower level of 13,902?

IV. Communities and Stakeholders

1. A February 15, 2017 email from Gina Roccaforte at IEPA to Brad Frost at IEPA asks Mr. Frost if he has “an outreach list pertaining to the Illinois mercury rule or, if not, an outreach list for informing those interested in BOA rulemakings involving power plants.” Email from Gina Roccaforte, Assistant General Counsel, Division of Legal Counsel, IEPA, to Brad Frost, Manager, Office of Community Relations (Feb. 15, 2017, 4:04 pm CST), attached hereto as “Attachment A.” This email was written more than five months before IEPA contacted stakeholders about this rulemaking on July 27, 2017. Why did IEPA wait five months since the time of this email to notify stakeholders that IEPA was in the process of developing its rulemaking proposal?
2. Are any of the eight Dynegy plants subject to this rulemaking located in an Environmental Justice Community?
 - a. If so, which of the plants are located in an Environmental Justice Community?
 - b. If so, has IEPA done any outreach to these Environmental Justice Communities?
 - i. If the answer is yes, what type of outreach has IEPA done and when was this outreach done?
 - ii. If the answer is no, why did IEPA not conduct this outreach?
 - c. What methodology or metrics did IEPA use to determine whether these plants were located in Environmental Justice Communities?
 - d. Has IEPA done any kind of analysis of the communities where these plants are located to determine whether they might have higher than average representation of residents that are in demographics used to determine whether a community is an Environmental Justice Community?
3. In your testimony you wrote that IEPA considered “localized impacts around the affected sources.” Davis Testimony at 4.
 - a. In what manner/ways did IEPA consider such localized impacts?
 - b. In what geographic areas did you consider these localized impacts? For example, did IEPA look at the impacts within a 50-mile, 10-mile, or 5-mile radius around the affected sources? Did IEPA instead look at impacts by town or by county?
 - c. Can you please share these calculations and/or analyses?
 - d. If a source retires, does the fleetwide annual tonnage get reduced by the tonnage proportional to that source’s emissions?

- e. One source could increase its annual tonnage (through either an increase in capacity or an increase in its rate-based emissions) to account for some or all of the fleetwide portion of emissions that would have been allocated to the unit that has since retired or been mothballed, correct?
 - f. An increase in emissions from one source increases risk of localized impacts around that source, correct?
 - g. Did IEPA consider the localized impacts if emissions from one source increase to account for the emissions from a different source that has shut down or been mothballed? If not, why not?
4. The Environmental Law & Policy Center (“ELPC”), the Natural Resources Defense Council (“NRDC”), the Respiratory Health Association (“RHA”), and the Sierra Club submitted comments to IEPA on this rule on August 25, 2017. These organizations stated that “any substantive revision to the MPS should address CO₂ in addition to NO_x and SO₂.” ELPC, NRDC, RHA, and Sierra Club, *Stakeholder Comments Re: Proposed Modification to 35 Ill. Adm. Code 225.233* at 15 (Aug. 25, 2017), attached hereto as Attachment B.
- a. In what ways did IEPA take this specific comment into consideration?
 - b. Why did IEPA choose not to incorporate CO₂ into this rulemaking?
 - c. Does IEPA have any plans to propose a rulemaking that would address CO₂?

V. Other Supporting Documentation

4. A March 16, 2017 email from Jeff Ferry at Dynegy to Sherrie Elzinga at IEPA states that “Rick and Jim had a meeting this morning with staff to review modeling and discuss some tech matters.” Email from Jeffrey A. Ferry, Senior Director State Government Affairs, Dynegy Inc., to Sherrie Elzinga, IEPA (Mar. 16, 2017, 12:25pm CST), attached hereto as “Attachment C.”
- a. Did IEPA receive a copy of this modeling? If so, can you please share this modeling information?
 - b. Did Dynegy discuss this modeling with IEPA? If so, what was discussed?
 - c. Did this modeling affect any elements of IEPA’s MPS proposal? If so, which elements were affected and how?
 - d. Is this modeling reflected in the TSD?
 - i. If not, then why is it not?

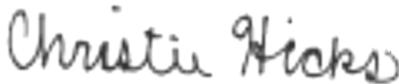
- ii. If so, then what elements of this modeling are reflected in the TSD?
 - e. If IEPA did its own modeling, please explain any differences between Dynegy and IEPA modeling and any changes IEPA made to its modeling or analysis in light of Dynegy's modeling.
- 5. A January 24, 2017 email from Dana Vetterhoffer at IEPA references a submittal from Dynegy. Email from Dana Vetterhoffer, Acting Deputy General Counsel, Air Regulatory Unit, IEPA, to Julie Armitage, IEPA, et al. (Jan. 24, 2017, 09:33am CST), attached hereto as "Attachment D."
 - a. Can you please share this submittal?
 - b. Did this submittal affect any elements of IEPA's MPS proposal? If so, which elements were affected and how?
 - c. Is this submittal reflected in the TSD?
 - i. If not, then why is it not?
 - ii. If so, then what elements are reflected in the TSD?
 - d. The January 24, 2017 email in Attachment D also attaches a memo titled "The Impact of Emissions Averaging Time on the Stringency of an Emission Standard." *Id.*
 - i. Did this memorandum affect any elements of IEPA's MPS proposal?
 - 1. If so, which elements were affected, and how were these elements affected?
 - 2. If not, why did this memo not affect any elements of the proposal?
 - ii. Did IEPA reach out to the authors of this memo about its contents and related issues?
 - 1. If so, what was discussed?
- 6. A January 23, 2017 email from PJ Becker to David Bloomberg and Dana Vetterhoffer states "I dropped off a copy of Dynegy's MPS/CPS/IMR documents in your mail box or office." Email from PJ Becker, IEPA, to David E. Bloomberg, IEPA, et al. (Jan. 23, 2017, 08:03am CST), attached hereto as "Attachment E"
 - a. By whom were these documents written?

- b. Can you please provide a copy of these documents?
7. IEPA shared a draft of this proposal with an attorney from Dynegy on May 11, 2017. *See* Email from Dana Vetterhoffer, Deputy General Counsel, Air Regulatory Unit, IEPA, to Renee Cipriano, Schiff Hardin LLP (May 11, 2017 4:03pm CST), attached hereto as "Attachment F." This draft contained a provision that would adjust the proposed mass-based caps on SO₂, NO_x and seasonal ozone downward were a unit to shut down. *Id.* at 15-16.
 - a. Why did IEPA's proposal originally contain a provision that would decrease the mass-based caps in the event of a shutdown?
 - b. Counsel for Dynegy submitted marked up revisions to this proposal deleting IEPA's proposed provision that would decrease Dynegy's mass-based caps were units to shut down. Email from Renee Cipriano, Schiff Hardin, to Dana Vetterhoffer, IEPA, and Gina Roccaforte, IEPA at 13-16 (May 17, 2017, 11:17am CST), attached hereto as "Attachment G." Why did IEPA accept these revisions?
8. IEPA's May 11, 2017 version of the proposal contained weights for which the caps would be adjusted downward in the event of a transfer. *See* Attachment F at 15-16. These weights are different from those delineated in IEPA's final draft of the proposal that it filed with the Pollution Control Board in October.
 - a. How did IEPA calculate the numbers that were in the May 11, 2017 draft of this proposal?
 - b. On May 24, 2017, counsel for Dynegy sent IEPA employees unit allocations that were different from those in the May 11, 2017 version of the proposal. Email from Renee Cipriano, Schiff Hardin, to Dana Vetterhoffer, IEPA, and Gina Roccaforte, IEPA (May 24, 2017 at 5:02pm), attached hereto as "Attachment H." On May 31, 2017 Ms. Vetterhoffer responded to this email by saying "The Agency is likely ok with the numbers, pending receipt of an explanation of how Dynegy arrived at them (for our understanding and for the TSD)." Email from Dana Vetterhoffer, IEPA, to Renee Cipriano, Schiff Hardin (May 31, 2017, 3:25pm CST), attached hereto as "Attachment I." As the author of the TSD, did you receive an explanation for these numbers?
 - i. If so, what was the explanation?
 - ii. Did IEPA independently verify the accuracy of these numbers?
 - c. The numbers sent by Ms. Cipriano on May 24, 2017 were included in a revised version of the proposal that IEPA sent to Ms. Cipriano on June 6, 2017. Email from Gina Roccaforte, IEPA, to Renee Cipriano, Schiff Hardin at 14-15 (June 6, 2017, 2:48pm CST), attached hereto as "Attachment J." Dynegy subsequently sent new transfer allocations. Email from Renee Cipriano, Schiff Hardin, to Gina

Roccaforte, IEPA (June 9, 2017, 2:44pm CST), attached hereto as "Attachment K." The transfer allocations in Attachment K are the same transfer allocations that were incorporated in the draft rule filed with the Pollution Control Board.

- i. Did Dynegy explain why these numbers were selected before IEPA incorporated them into the rulemaking proposal? If so, can you please share this explanation/analysis?
 - ii. Did IEPA independently verify that these numbers were appropriate before filing its rulemaking proposal with the PCB? If so, can you please share your analysis?
 - iii. Why was an analysis of how these numbers were calculated not included in the TSD?
9. IEPA produced a March 22, 2017 document titled "Illinois MPS Proposed Rule Change—Negotiated Terms" in response to a Freedom of Information Act request, attached hereto as "Attachment L."
- a. Who from IEPA and Dynegy were involved in negotiating the terms memorialized in this document?
 - b. Were people from any other organizations involved in negotiating the terms memorialized in this document?
 - c. Were earlier drafts of these negotiated terms exchanged with IEPA? If so, can you please share these drafts?
 - d. Can you please share communications with IEPA and other organizations that pertain specifically to negotiating these terms?

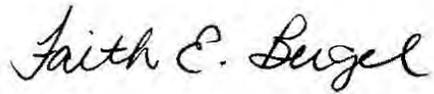
Respectfully submitted,



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Date: January 2, 2018

Attachment A

Email from Gina Roccaforte, Assistant General Counsel,
Division of Legal Counsel, IEPA, to Brad Frost, Manager,
Office of Community Relations (Feb. 15, 2017, 4:04 pm
CST)

Roccaforte, Gina

From: Frost, Brad
Sent: Wednesday, February 15, 2017 4:17 PM
To: Roccaforte, Gina
Subject: RE: Inquiries

Yep, will do

From: Roccaforte, Gina
Sent: Wednesday, February 15, 2017 4:08 PM
To: Frost, Brad
Subject: RE: Inquiries

Dana has a meeting scheduled for next Thursday, I believe, so if possible, by next Wednesday. Does that work for you?

From: Frost, Brad
Sent: Wednesday, February 15, 2017 4:06 PM
To: Roccaforte, Gina
Subject: RE: Inquiries

What is the timeframe to get you the requested info?

From: Roccaforte, Gina
Sent: Wednesday, February 15, 2017 4:04 PM
To: Frost, Brad
Subject: Inquiries

IEPA - DIVISION OF RECORDS MANAGEMENT
RELEASABLE

AUG 25 2017

Hi Brad,

REVIEWER: MED

As to Illinois Power Holdings, LLC (a subsidiary of Dynegy), which now owns and operates the Coffeen, Duck Creek, Newton, Edwards, Joppa, Baldwin, Havana and Hennepin plants, do you know if any of these plants are located in EJ areas?

Also, do you by any chance have an outreach list pertaining to the Illinois mercury rule or, if not, an outreach list for informing those interested in BOA rulemakings involving power plants?

Thank you very much!

Gina

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Gina Roccaforte
Assistant Counsel
Division of Legal Counsel

Illinois Environmental Protection Agency
1021 N. Grand Ave. East
P.O. Box 19276
Springfield, IL 62794-9276
(217) 782-5544
(217) 782-9807 fax

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MED

Attachment B

Environmental Law & Policy Center, Natural Resources
Defense Council, Respiratory Health Association, and
Sierra Club, *Stakeholder Comments Re: Proposed
Modification to 35 Ill. Adm. Code 225.233 at 15 (Aug. 25,
2017)*

Environmental Law & Policy Center □ **Natural Resources Defense Council** □ **Respiratory Health Association** □ **Sierra Club**

August 25, 2017

Via Email

David Bloomberg
Manager, Air Quality Planning Section
Illinois Environmental Protection Agency
1021 N. Grand Ave. East
Springfield, IL 62794

Re: Proposed Modification to 35 Ill. Adm. Code 225.233

Dear Mr. Bloomberg,

Please accept these comments on behalf of the Environmental Law & Policy Center, the Natural Resources Defense Council, the Respiratory Health Association, and the Sierra Club (collectively, “Citizen Groups”) regarding Illinois EPA’s (“IEPA”) and Dynegey Inc.’s (“Dynegey”) proposed modifications to the Multi-Pollutant Standards rule, 35 Ill. Adm. Code 225.233 (“Proposed MPS Revision”). This modification would combine into one single group two separate MPS groups of Dynegey-owned plants and would alter the nitrogen oxides (“NOx”) and sulfur dioxide (“SO₂”) emissions limits for these plants. We have serious concerns with both the process and the content of the Proposed MPS Revision.

While we appreciate IEPA extending this opportunity to provide comments to the agency before the proposal is presented to the Pollution Control Board (“PCB”), both the short comment period it has offered (providing only one month during the height of summer, and denying our requests for a reasonable extension) and the limited amount of information it has made available to us during the comment period (providing only minimal and mostly conclusory analysis, while

failing to respond to our promptly filed FOIA request¹) have made it impossible for us to do a meaningful substantive review and provide fully informed comments. This is in contrast to the nine months Dynegey has had to work directly with IEPA to craft these regulations. Moreover, as far as we are aware, the opportunity for review and comment was provided only to certain organizations, such as members of Citizen Groups, not to the residents of the communities in which the Dynegey plants are located. Since IEPA is offering this early opportunity for input, the agency should make the opportunity a meaningful one.

The content of this proposal is also troubling, as we understand it, based on the review we have been able to conduct thus far of the material available to us. The proposed rulemaking would eliminate any limits on the average fleet-wide rate of NO_x and SO₂ emissions in favor of system-wide annual and ozone season tonnage caps, which appear to have been set at levels that would allow emissions to increase at individual facilities in individual communities. Furthermore, the total amount of allowed emissions would not decrease even if specific units retire, no matter the reason, thus allowing some plants to emit yet more as Dynegey's fleet potentially decreases in size and productivity. These provisions raise potentially significant public health and Environmental Justice concerns. For instance, they might enable Dynegey to defer—or never install at all—pollution control equipment that Illinois citizens have been expecting since the MPS was first adopted in 2006. It appears likely, based on public information from Dynegey itself, that the company intends to do virtually no NO_x or SO₂ pollution control projects at these plants in the coming years. The proposal is also opaque with respect to

¹ A member of Citizen Groups submitted a FOIA request for information related to the Proposed MPS Revision on August 10, 2017. One week later, IEPA exercised its statutory authority to extend by five days its deadline to respond. Four days following its notification of its own extension, without providing the information originally requested, during a phone call on August 21, IEPA informed a member of Citizen Groups that they should withdraw the original request and submit the same request for a different time period. Today, IEPA followed up the new FOIA request it asked that we place with taking another extension. IEPA's self-extension followed by its instructions for Citizen Groups to withdraw their original request, followed by another self-extension has delayed the results of the FOIA response until after the deadline for the Proposed MPS Revision.

requirements that the plants must run existing pollution control technology to their full efficiency.

The adoption of the original MPS in 2006 was an advance in regulating the multiple air pollutants that are emitted by coal-fired power plants. It provided flexibility to the companies and a comprehensive approach to reducing harmful emissions of mercury, SO₂, NO_x, and particulate matter, something the federal government had not been able to accomplish. After years of variances granting relief to the companies regulated by the MPS; developments affecting the ownership, economic viability, and future prospects of these plants; and evolving environmental and public health threats posed by these plants including the threat of climate change, a serious reexamination of the MPS is warranted. Citizen Groups are prepared to work with Dynegy, the IEPA, and other stakeholders to address SO₂, NO_x, and CO₂ emissions from the plants, while allowing Dynegy flexibility necessary to both manage its fleets and retire units when necessary. We urge IEPA to take enough time to engage in a full and meaningful dialogue with all interested and affected parties, before proceeding to the formal PCB process.

Below are some of our specific concerns with the proposed revision, and the process that led to that proposal.

I. IEPA Failed to Provide the Public with an Opportunity to Provide Substantive Feedback on the Proposed MPS Revision.

We have serious concerns about IEPA denying the public an opportunity to meaningfully weigh in on a rulemaking proposal that could significantly impact public health and the environment given that this proposed rulemaking was initiated by, and developed in concert with, the energy company this proposed rule is meant to regulate. IEPA is charged with providing a healthy environment for all Illinois citizens, but Dynegy was granted special access

during the course of the proposed rulemaking. Our organizations advocate on behalf of our members and communities to in part ensure that the air we breathe is clean and safe. We have repeatedly sought reasonable information and opportunities that would allow us to provide meaningful feedback on this proposed rule, but for the most part these reasonable requests have been denied. Our comments are therefore bounded by these restraints and we note that we will provide more comprehensive feedback once we are provided with all of the necessary facts pertaining to this rulemaking.

IEPA's obligation to act on behalf of the general public is made clear by the Illinois Environmental Protection Act. Most pointedly, the Act proclaims "that pollution of the air of this State constitutes a menace to public health and welfare, creates public nuisances," and that air pollution provisions of the Illinois Environmental Protection Act must "restore, maintain, and enhance the purity of the air of this State in order to protect health, welfare, property, and the quality of life and to assure that no air contaminants are discharged into the atmosphere without being given the degree of treatment or control necessary to prevent pollution." 415 ILCS 5/8. IEPA, in turn, is charged with carrying out the purposes of the Illinois Environmental Protection Act. 415 ILCS 5/4. The Proposed MPS Revision has the potential to allow for increased levels of harmful pollutants from Dynegy plants, especially in certain vulnerable communities. However, although Dynegy initially proposed this rulemaking to IEPA in 2016 and worked with IEPA on developing its contents, the public was not made aware of Dynegy and IEPA's proposed rulemaking until less than one month ago, in July 2017. This imbalanced level of access does not

comport with IEPA's charge to "safeguard the state's natural resources from pollution to provide a healthy environment for its citizens."²

Further, IEPA has failed to grant reasonable accommodations sought by Citizen Groups that would allow them to provide meaningful comments before the Agency and Dynegey finalize their proposed recommendation to the Pollution Control Board. The public was provided with less than a month to provide feedback on this proposal, which was made available on July 27, 2017 with a comment deadline of August 25, 2017. Even though our groups wasted no time requesting to meet with IEPA to get information on this proposal, IEPA's timeline is at odds with the goal of obtaining meaningful public comments. IEPA denied all requests for an extension to comment on this proposed rulemaking, one of which was placed by a coalition of 13 different stakeholder groups. The primary explanation put forth by Dynegey is that they wanted to move this rulemaking process along (despite the fact that IEPA has spent nine months working with Dynegey on this proposal). Additionally, IEPA provided a limited amount of documented technical support for its proposal on August 9, 2017, less than three weeks before the comment deadline. Finally, the day following our conversation with IEPA, stakeholder groups placed a Freedom of Information Act request with IEPA to get more background on the Proposed MPS Revision. Ironically, IEPA gave itself an extension on its statutorily-prescribed timeframe to respond, with the result that Citizen Groups did not receive any responsive documents before the August 25, 2017 comment deadline.

The truncated process IEPA has followed in proposing this revision contrasts starkly with the implementation process and purpose of the MPS. The original MPS, issued in 2006, was

² Exec. Order No. 2017-03, Transferring Certain Functions from the Department of Commerce and Economic Opportunity to the Department of Natural Resources and the Environmental Protection Agency (Mar. 31, 2017), https://www2.illinois.gov/Pages/government/execorders/2017_3.aspx.

passed after a long, iterative process that involved numerous stakeholders; and that rule went through several rounds of public comments and revisions before it was finalized. The strength of the original MPS came in part from the diverse coalition of public entities that contributed to its development; sacrificing that part of the process this time around in and of itself undermines both the original rule, and the collaborative process that led to that rule, and will not lead to the best outcome in this revision rulemaking.

While we do understand all members of the public will have the ability to submit public comments on the Proposed MPS Revision after it has been submitted to the PCB, that formal process is functionally different from the one at hand. The best time for interested stakeholders to work constructively with IEPA is before the proposal becomes subject to the formal PCB process, as Dynegy has had months to do. And assuming stakeholders have all relevant information and analysis, providing feedback now, rather than later, would streamline the PCB's rulemaking process and give the public an opportunity to comment on a more developed and balanced draft of the proposed rule.

II. The Proposed MPS Revision Could Allow Dynegy to Increase the Amount of NO_x and SO₂ Emitted by Its Electric Generating Units.³

At Dynegy's request, IEPA and Dynegy have put forth a proposal that would alter the NO_x and SO₂ emissions limits for Dynegy's Baldwin, Coffeen, Duck Creek, Edwards, Havana, Hennepin, Joppa, and Newton coal plants, which has significant implications. The Proposed MPS Revision would seemingly alter both the total allowable NO_x and SO₂ emissions from the plants, and how these allowable limits are calculated. Specifically, the proposal would change 35

³ As noted in the previous section, Citizen Groups have had neither sufficient time nor complete information to consider the implications of the proposed changes to the MPS. The comments offered in this section on the potential impacts of the revision are therefore preliminary. We intend to supplement these comments once we have received all pertinent and requested information and had a reasonable period of time to consider it.

Ill. Adm. Code 225.33(e)(1) from requiring an average fleet-wide NO_x emission rate of .11 lb/million Btu to requiring an annual fleet-wide cap of 25,000 tons for all affected electric generating units (“EGUs”).⁴ Likewise, the proposal would modify 35 Ill. Adm. Code 225.33(e)(2) from requiring an average fleet-wide SO₂ emission rate of .25 lb/million Btu to requiring an annual fleet-wide cap of 55,000 tons for all affected EGUs.⁵

As a preliminary matter, Citizen Groups are concerned because the size of the proposed mass limits for NO_x and SO₂ appears to allow for an overall increase in fleet-wide emissions. However, because IEPA has shared only a limited amount of technical support for this rulemaking, we do not have enough information to determine the full implications of these mass limits.

We furthermore are troubled by Dynegy and IEPA’s proposal for determining how the emissions limits are calculated. Under the current rule, because the emissions limits are calculated on a rate-based average within an MPS Group, a shutdown of an EGU in an MPS Group would not affect the average emissions limit for the units that remain open in the MPS Group because their zero average emissions values are not factored in when calculating the new average for the remaining units in the MPS Group. The Proposed MPS Revision, however, would not decrease the MPS Group NO_x and SO₂ emissions caps when any EGUs shut down. Thus, any new shutdowns of EGUs in Dynegy’s Illinois fleet would create space for the remaining EGUs to increase their total NO_x and SO₂ emissions. Essentially, the Proposed MPS Revision would give Dynegy license for its EGUs to emit NO_x and SO₂ at more harmful levels while remaining compliant under the new annual caps on emissions.

⁴ Draft Rule Modification to the Multi-Pollutant Standards, Illinois Environmental Protection Agency (proposed July 27, 2017), at 12.

⁵ *Id.* at 13.

III. The Proposed MPS Revision Is Inconsistent with the Purpose Underlying the 2006 MPS.

The 2006 MPS rulemaking was based on an expectation that the pollution control objectives crystalized in that rule were achievable and would be respected. The understanding that Dynegy and other utilities must meet the emission control requirements memorialized in the 2006 rulemaking persevered even as the PCB (with IEPA's endorsement) has granted limited variances of MPS and CPS standards to individual electric generating companies, including Dynegy. By contrast, the Proposed MPS Revision appears to be wholly at odds with the 2006 rulemaking: it assumes the restrictions in the original MPS to be unreasonable and eliminates any apparent impetus for Dynegy to install controls on any of its plants. This is particularly troubling because pollution control at coal-fired power plants has become more technologically feasible during the past ten years. Before IEPA moves forward with this plan, the Agency should review it for consistency with the original MPS.

This expectation of consistency is demonstrated particularly by comments both IEPA and Dynegy contributed to the first round of the MPS, in which they explicitly acknowledged and accepted the original rule's pollution standards. In a joint statement to the PCB, both parties indicated that they "agree that compliance with the MPS . . . is both technically feasible and economically reasonable, and that the level of NO_x and SO₂ emission reductions required under the revised MPS is expected to contribute significantly to Illinois EPA's efforts to achieve attainment of the National Ambient Air Quality Standards."⁶ As recently as in its joint motion to terminate its variance Dynegy stated that, with the retirement of Newton 2, it could comply with 35 Ill. Adm. Code 225.233(e)(3)(C)(iv) [0.23 lbs/mmBtu] on an ongoing basis. It is conceivable

⁶ IEPA & DYNEGY, *Corrected Joint Statement of Illinois Environmental Protection Agency and Dynegy Midwest Generation, Inc.* at 4 (Aug. 23, 2006), <http://www.ipcb.state.il.us/documents/dsweb/Get/Document-54080>.

that circumstances might change in 11 years; but until the full set of stakeholders who were involved in the original process are given an opportunity to review IEPA's and Dynegey's claims, these organizations have failed to demonstrate that revoking commitments made under the 2006 MPS rulemaking is appropriate.

In proposing the revisions at issue to the original MPS, IEPA has claimed that the changes are needed simply to correct an unintended consequence of the rule as originally written; namely, that Dynegey and perhaps other generation owners are being incentivized to run effectively controlled units not for their energy but simply to help them meet a fleet wide pollution control standard. There may be some truth to this claim, but as highlighted above, IEPA has not offered the public the opportunity to meaningfully discuss or fully verify that claim. Citizen Groups are furthermore concerned that Dynegey and IEPA's Proposed MPS Revision will allow the company to avoid capital expenditures on pollution control technology by continuing to cheaply run its dirtier plants. Since the 2006 MPS rulemaking, variances have repeatedly been sought by current and previous owners of these plants. In November 2013, Dynegey-Illinois Power Holdings received an approval of a variance previously sought by Ameren, the company that sold the Newton, Duck Creek, Coffeen, Joppa, and Edwards coal plants coal plants to Dynegey. Under the variance, these plants are not required to meet the MPS Group's SO₂ emissions limit until December 31, 2019. To help meet these emissions limits, Dynegey was initially planning on building a scrubber at Unit 2 of the Newton plant. However, this EGU was shut down in 2016, meaning that Dynegey must now install SO₂ pollution control technology at one or more of its remaining EGUs before December 31, 2019 in order for the company to stay in compliance with the existing MPS regulations' requirements for SO₂.⁷

⁷ The pressure to install the pollution control technology thus likely explains the expediency of this proposed rulemaking. However, IEPA and Dynegey are unnecessarily rushing this process. After Dynegey decided to retire

Unfortunately, Dynegy has failed to adequately demonstrate that it intends to implement pollution control technology that would allow it to comply with the current 35 Ill. Adm. Code 225.233(e). In its August 3, 2017 Second Quarter 2017 Review presentation to shareholders, Dynegy admitted that for 2017 it plans to only spend \$10 million in environmental capital expenditures for the Dynegy system nationally, likely in part because recent developments in the energy and capacity markets may have reduced the value these plants provide to the company.⁸ During this presentation Robert Flexon, the CEO, President, and Director of Dynegy, even went so far as to say that any plants that are required to make environmental capital expenditures are the more likely candidates for closure or sales, stating:

Well, I think really when you think of the coal assets... the ones say, at risk, I think a lot of it that plays into it is future environmental CapEx spend. And the decision will be down the road if the pricing or their costs don't get to a level that supports the environmental CapEx spend, then they would be at risk for shutdowns, because obviously we don't want to carry assets that are generating negative cash flow. So it's depending upon that I think it's the trigger in all of this I think is when the larger environmental CapEx expense comes their way... So if you kind of then divided up the last unit that gets the capacity sales, the one that has the larger environmental CapEx requirement, coming down the road, that's going to be the plants that are at risk.⁹

These circumstances suggest that IEPA is acting here not to protect the environment, but rather to protect Dynegy from facing the costs of the deal it accepted back in 2006.¹⁰ Thus, IEPA

Newton Unit 2, it filed a joint motion to terminate its variance, which stated that the company was able to comply with the SO₂ emissions rate delineated in the current 35 Ill. Adm. Code 225.233(e)(3)(C)(iv) as a result of that retirement. There is no reason to fast-track this proposal without necessary stakeholder input because Dynegy is already in compliance with its current regulations and can continue to maintain compliance next year so long as it carefully monitors its own operations.

⁸ *Second Quarter 2017 Review*, DYNEGY (Aug. 3, 2017), <http://phx.corporate-ir.net/External.File?item=UGFyZW50SUQ9Njc3MTU2fENoaWxkSUQ9Mzg1Mjg2fFR5cGU9MQ==&t=1>.

⁹ *Edited Transcript of Dynegy Earnings Conference Call or Presentation*, YAHOO FINANCE, <https://finance.yahoo.com/news/edited-transcript-dyn-earnings-conference-193028053.html?.tsrc=applewf>.

¹⁰ A related issue of potential concern, which we intend to explore more fully as we have more time to review the proposal, is how the proposed revision would affect Dynegy's obligation to run currently installed control equipment, i.e. would the tonnage caps allow the company to dial back or turn off existing controls?

has not demonstrated the need for the Proposed MPS Revision, a revision that seemingly undermines the intent of the 2006 MPS rulemaking.

IV. The Proposed MPS Revision Could Unjustly Burden Some Communities Over Others.

This proposal also presents significant Environmental Justice concerns because as written and calculated, it could give Dynegy license to potentially significantly increase NO_x and SO₂ pollution from individual EGUs. Both of these pollutants are poisons that can pose serious health risks, and a disturbingly high number of the EGUs are located in communities that have been previously identified as raising Environmental Justice concerns. At the very least, the Baldwin, Duck Creek, Coffeen, Edwards, Havana, and Joppa coal plants are all located in potential Environmental Justice communities under IEPA's definition of what constitutes such a community. Thus, IEPA should conduct an Environmental Justice analysis of these communities before finalizing its proposal.

Nitrogen oxides are a group of highly reactive gases that includes nitrogen dioxide (NO₂), nitric oxide (NO), nitrous acid (HNO₂), nitric acid (HNO₃), and other various reaction products.¹¹ As a group, this set of chemicals is one of the two main precursors to the formation of ozone, also known as smog. Electric utilities are some of the major sources of ozone.¹² Breathing ozone can cause many frightening health effects, such as chest pain, reduced lung function, and worsened emphysema, asthma, and bronchitis.¹³ In addition to its contribution to ozone, NO₂ in particular has been identified as a hazardous pollutant. USEPA has established a National Ambient Air Quality Standard for NO₂, based on the robust body of evidence about its adverse

¹¹ *Nitrogen Dioxide (NO₂) Pollution: Basic Information about NO₂*, ENVIRONMENTAL PROTECTION AGENCY, <https://www.epa.gov/no2-pollution/basic-information-about-no2#Effects> (last visited Aug. 25, 2017).

¹² *Ozone Pollution: Ozone Basics*, ENVIRONMENTAL PROTECTION AGENCY, <https://www.epa.gov/ozone-pollution/ozone-basics#effects> (last visited Aug. 25, 2017).

¹³ *Id.*

health impacts. Both short- and long-term exposure to NO₂ can have serious health effects, and children and the elderly are particularly vulnerable to the effects of exposure to NO₂. Breathing air with a high concentration of NO₂ can irritate airways in the human respiratory system. Short-term exposure can aggravate respiratory diseases—most significantly asthma—leading to respiratory symptoms such as coughing, wheezing, or difficulty breathing.¹⁴ Furthermore, long-term exposure to NO₂ may contribute to the development of asthma and may increase susceptibility to respiratory infections and diseases such as Chronic Obstructive Pulmonary Disease (“COPD”).¹⁵ Finally, there is evidence to suggest that exposure to NO₂ may lead to cardiovascular problems, reproductive and developmental complications, an increase in the incidence of cancer, as well as an overall increase in mortality in the general population.¹⁶

SO₂ is also a dangerous air pollutant.¹⁷ The health effects of exposure to SO₂, in both the short- and long-term, are similar to health effects of exposure to NO₂. In the short-term, asthma aggravation is the most significant health effect.¹⁸ In asthmatics, the severity of respiratory symptoms (i.e., cough, chest tightness, throat irritation) worsened with increasing SO₂ concentration.¹⁹ In particular, children have an increased response (i.e., a decrease in lung function) to SO₂ exposure.²⁰ In addition, long-term exposure may lead to asthma development,

¹⁴ *Integrated Science Assessment for Oxides of Nitrogen—Health Criteria*, ENVIRONMENTAL PROTECTION AGENCY at 1-16 to 1-20 (Jan. 2016), http://ofmpub.epa.gov/eims/eimscomm.getfile?p_download_id=526855.

¹⁵ Chronic Obstructive Pulmonary Disease (COPD) is an umbrella term used to describe progressive lung diseases including emphysema, chronic bronchitis, refractory (non-reversible) asthma, and some forms of bronchiectasis. This disease is characterized by increasing breathlessness. *See What is COPD?*, COPD FOUNDATION, <https://www.copdfoundation.org/What-is-COPD/Understanding-COPD/What-is-COPD.aspx> (last visited Aug. 21, 2017).

¹⁶ *Integrated Science Assessment for Oxides of Nitrogen*, at lxxix; 1-22 to 1-36.

¹⁷ *Sulfur Dioxide Basics*, ENVIRONMENTAL PROTECTION AGENCY, <https://www.epa.gov/so2-pollution/sulfur-dioxide-basics#what-is-so2> (last visited Aug. 21, 2017).

¹⁸ *Integrated Science Assessment for Sulfur Oxides—Health Criteria*, ENVIRONMENTAL PROTECTION AGENCY, at 3-4 to 3-5, 3-33 (Sept. 2008), http://ofmpub.epa.gov/eims/eimscomm.getfile?p_download_id=491274.

¹⁹ *Id.* at 3-5.

²⁰ *Id.* at 3-11 to 3-16.

especially in children.²¹ Although a causal relationship between exposure to SO₂ and health problems beyond respiratory ailments has not been definitely established, a positive association between exposure to SO₂ and a number of health problems exists. For example, there is evidence that exposure to SO₂ contributes to cardiovascular diseases.²² In addition, exposure to SO₂ may contribute to a variety of reproductive and developmental health outcomes, including fetal growth metrics, pre-term birth, birth weight, and fetal and infant mortality.²³ Finally, there is evidence to suggest that SO₂ exposure is causally related to overall increased mortality, at least in the short-run and at peak exposure rates.²⁴ A proposal that could have the effect of increasing coal plants' SO₂ emissions into communities is particularly troubling because fossil fuel combustion at industrial facilities, such as coal plants, is the largest source of SO₂ emissions.²⁵ In fact, the Edwards plant, which is in Peoria County and the Joppa plant, which is in Massac County, are both located in SO₂ nonattainment areas in Illinois.²⁶ Furthermore, in 2016 Illinois recommended that Jasper County, where the Newton plant is located, be designated as a nonattainment area for ozone.²⁷ Thus, given the harmful effects of NO_x and SO₂, an increase in EGUs' emissions of these poisons could be met with an increase in respiratory issues, cardiovascular problems, reproductive complications, cancer, and instances of mortality in the surrounding community.

²¹ *Id.* at 3-57. The EPA determined that despite a positive correlation between SO₂ exposure and development of asthma, the evidence was inadequate to establish a clear causal relationship.

²² *Id.* at 3-34 to 3-42.

²³ *Id.* at 3-60 to 3-63.

²⁴ *Id.* at 3-52. *But see id.* at 3-68 (noting that studies documenting the long term exposure to SO₂, although indicating positive association, do not indicate a causal relationship between exposure and an overall increase in mortality).

²⁵ *Sulfur Dioxide Basics*, ENVIRONMENTAL PROTECTION AGENCY, <https://www.epa.gov/so2-pollution/sulfur-dioxide-basics#what-is-so2> (last visited Aug. 21, 2017).

²⁶ *Technical Support Document for Illinois Area Designations for the 2010 SO₂ Primary National Ambient Air Quality Standard*, ENVIRONMENTAL PROTECTION AGENCY 1, 3 (2016), https://www.epa.gov/sites/production/files/2016-07/documents/r5_il_final_designation_tsd_06302016.pdf

²⁷ *Technical Support Document for Recommended Nonattainment Boundaries in Illinois for the 2015 Ozone National Ambient Air Quality Standard*, ENVIRONMENTAL PROTECTION AGENCY 56, fig. 24 (2016), <https://www.epa.gov/sites/production/files/2016-11/documents/il-rec-tds.pdf>.

The Proposed MPS Revision is even more concerning because many of the communities that would bear the brunt of increased NO_x and SO₂ emissions may be Environmental Justice communities under IEPA's definition of what constitutes such a community.²⁸ These can be communities which, compared to the rest of the State of Illinois, have disproportionately suffered from environmental health hazards. Under IEPA guidance, a potential Environmental Justice community can be a community if its "low-income and/or minority population is less than twice the state-wide average but greater than the statewide average and that has identified itself as an EJ community."²⁹ According to data from the United States Census Bureau, the Baldwin, Duck Creek, Coffeen, Edwards, Havana, and Joppa coal plants are all located in counties whose poverty rates are greater than the Illinois statewide average poverty rate.³⁰ IEPA should therefore not move forward with the Proposed MPS Revision until it conducts an Environmental Justice analysis.

Engaging residents, community groups, and other stakeholders living around the power plants included in this revision ensures that IEPA achieves its goal of "environmental equity for all of the citizens of Illinois."³¹ To this end, IEPA has in place a public participation strategy for actions affecting Environmental Justice communities; the hallmarks of this strategy are community engagement and outreach, public notice and hearing, as well as receipt of public

²⁸ We note that IEPA's definition of an Environmental Justice community is far too limiting to fully encapsulate the problem that Environmental Justice analyses were established to address.

²⁹ *Environmental Justice (EJ) Policy*, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, <http://www.epa.illinois.gov/topics/environmental-justice/ej-policy/index> (last visited Aug. 25, 2017).

³⁰ According to the U.S. Census Bureau, the statewide average poverty rate in Illinois is 13.6%. The average poverty rate in Randolph County, where the Baldwin plant is located, is 14.3%; the average poverty rate in Montgomery County, where Coffeen plant is located, is 16.6%; the average poverty rate in Fulton County, where the Duck Creek plant is located, is 14.9%; the average poverty rate in Peoria County, where the Edwards plant is located, is 15.6%; the average poverty rate in Mason County, where the Havana plant is located, is 13.9%; the average poverty rate in Massac County, where the Joppa plant is located, is 16.8%. See *Quick Facts: Illinois*, UNITED STATES CENSUS BUREAU, <https://www.census.gov/quickfacts/fact/table/IL/PST045216> (last visited Aug. 25, 2017) (for each county listed, type county name and select from drop-down menu).

³¹ *Environmental Justice (EJ) Policy*.

comments on the matter affecting the EJ community.³² Pursuant to this strategy, IEPA's Office of Community Relations should work with the affected communities to first identify any environmental concerns regarding the proposed revisions.³³ After identifying environmental matters and any IEPA actions of concern to the EJ communities, IEPA staff should hold regional meetings and hearings in and around the potentially affected communities. Finally, IEPA should consider whether there are alternative participation methods and approaches that may increase public participation in a controversial rulemaking such as this.³⁴ It is our understanding, however, that IEPA has not yet done this Environmental Justice analysis with respect to the Proposed MPS Revision, nor are we aware any IEPA commitment to conducting this Environmental Justice analysis in the future.

V. Any Substantive Revision to the MPS Should Address CO₂ in Addition to NO_x and SO₂.

As noted earlier, the 2006 MPS was ground-breaking. A state rule addressing multiple pollutants from coal-fired power plants was as forward-thinking as it was commonsense. Now ten years later, any significant effort to revise and update the rule should consider the full suite of air pollutants of concern from these facilities; that includes carbon dioxide.

Carbon dioxide is naturally present in the atmosphere as part of the Earth's carbon cycle. In the natural state—and without human interference—emissions and removal of CO₂ by natural processes tend to balance. The overwhelming scientific consensus is that increasing levels of CO₂ in the atmosphere, especially during the last century, are causing a variety of changes to the Earth's climate, resulting in warmer temperatures, more frequent and severe storms, flooding, drought, wildfires, and rising sea levels, with accompanying current and future impacts on public

³² *Id.*

³³ *Id.*

³⁴ *Id.*

health, community well-being, and the environment. There is also overwhelming consensus that these increased CO₂ levels are due in significant measure to human activities. Since the Industrial Revolution began around 1750, human activities have been altering the natural carbon cycle, both by adding more CO₂ to the atmosphere and by impeding the Earth's natural ability to remove CO₂ from the atmosphere.³⁵

Carbon dioxide is the primary greenhouse gas emitted through human activities.³⁶ In 2015, CO₂ accounted for about 82.2% of all U.S. greenhouse gas emissions from human activities. The main human activity that emits CO₂ is the combustion of fossil fuels for energy, both electricity production and transportation. Electricity is a significant source of energy in the United States and is used to power homes, business, and industry.³⁷ Generation of electricity requires substantial fossil fuel combustion; consequently, electricity generation is a significant source of CO₂ emissions, accounting for about 35 percent of total CO₂ emissions and 29% of total greenhouse gas emissions in the United States.³⁸

Communities in the State of Illinois are already feeling the effects of climate change and as the emissions of CO₂ continue to increase, the effects of climate change will become even more palpable.³⁹ For example, Illinois communities are at an increased risk of heavy precipitation and flooding, Lake Michigan will experience deteriorating water quality, and there is an increased risk of crop failure.⁴⁰

³⁵ *Green House Gas Emissions: Carbon Dioxide Emissions*, ENVIRONMENTAL PROTECTION AGENCY, <https://www.epa.gov/ghgemissions/overview-greenhouse-gases#carbon-dioxide> (last visited Aug. 25, 2017).

³⁶ *Id.*

³⁷ *Sources of Greenhouse Gas Emissions: Electricity Section Emissions*, ENVIRONMENTAL PROTECTION AGENCY, <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions#electricity> (last visited Aug. 25, 2017).

³⁸ *Id.*

³⁹ *What Climate Change Means for Illinois*, ENVIRONMENTAL PROTECTION AGENCY (Aug. 2016), <https://19january2017snapshot.epa.gov/sites/production/files/2016-09/documents/climate-change-il.pdf>.

⁴⁰ *Id.*

In recent years, there has been a national debate about whether and how to control CO₂ emissions from coal-fired plants. At the federal level, there have been legislative proposals,⁴¹ and in 2015, the USEPA finalized the Clean Power Plan, which required states to develop plans to reduce CO₂ from these facilities. While action at the national level has been delayed, a number of states have moved forward with their own programs to reduce power plant CO₂ emissions. The current process to revise the Illinois MPS is a timely opportunity for IEPA to write the next chapter in its multipollutant approach to power plant emissions. The Citizen Groups stand ready to engage promptly and constructively on this issue.

VI. Conclusion

Citizen Groups appreciate the opportunity to submit these preliminary comments, but we believe more could have and should have been done to invite broader and more meaningful participation from the outset. In particular, IEPA should immediately make all relevant information and analysis about this proposal available to interested stakeholders and provide a reasonable period of time for review, comment and discussion with the agency. IEPA should also complete an Environmental Justice analysis, evaluating how the proposed mass limits could affect Environmental Justice communities or, if such analysis has already been done, make it available for review. IEPA should refrain from submitting the Proposed MPS Revision to the PCB at this time and in its current state. If you have any questions, please do not hesitate to contact us.

Sincerely,

⁴¹ American Clean Energy and Security Act of 2009, H.R. 2454, 111th Congress (2009–2010).



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San Francisco, CA 94105
(415) 977-5646

Attachment C

Email from Jeffrey A. Ferry, Senior Director State
Government Affairs, Dynegy Inc., to Sherrie Elzinga,
IEPA (Mar. 16, 2017, 12:25pm CST)

Armitage, Julie

From: Elzinga, Sherrie
Sent: Thursday, March 16, 2017 2:29 PM
To: Becker, PJ; Armitage, Julie
Subject: FW: Meeting

-----Original Message-----

From: Ferry, Jeff [mailto:Jeff.Ferry@dynegey.com]
Sent: Thursday, March 16, 2017 12:25 PM
To: Elzinga, Sherrie <Sherrie.Elzinga@Illinois.gov>
Subject: [External] Meeting

Update- Rick and Jim had a meeting this morning with staff to review modeling and discuss some tech matters. Sense was that we are getting close. We will be prepared to answer any questions from agency promptly once we receive. We understand that David B will be out next We-Fri. Can we target Monday or Tuesday of next week for next meeting? If not, we can look at early the following week. Thoughts

Jeffrey A. Ferry
Senior Director State Government Affairs Dynegey Inc

2604 Parsley Lane
Springfield IL 62711

217-519-4762 (cell)
ferry.jeff@comcast.net
jeff.ferry@dynegey.com

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Attachment D

Email from Dana Vetterhoffer, Acting Deputy General Counsel, Air Regulatory Unit, IEPA, to Julie Armitage, IEPA, et al. (Jan. 24, 2017, 09:33am CST)

Vetterhoffer, Dana

From: Vetterhoffer, Dana
Sent: Tuesday, January 24, 2017 9:33 AM
To: Armitage, Julie; Becker, PJ; Bloomberg, David E.
Subject: Revisions to Mercury Rule: Boone Memo
Attachments: Boone Memo re Impact of Averaging Time 12-9-11.pdf

Hi all. Attached is the memo that Dynegy quoted on p. 1 of its submittal regarding the impact of emissions averaging time on the stringency of emission standards.

Thanks,

Dana Vetterhoffer
Acting Deputy General Counsel, Air Regulatory Unit
Illinois Environmental Protection Agency
(217)782-5544 fax: (217)782-9807

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MEMORANDUM

SUBJECT: The Impact of Emissions Averaging Time on the Stringency of an Emission Standard

FROM: Stephen Boone, Roy Neulicht, and Jeff Cole, RTI

TO: Bill Maxwell, EPA, SPPD, Energy Strategies Group

DATE: December 9, 2011

Purpose

These analyses were conducted on the Part II CEMS data to evaluate the impact of averaging time on variability and to “predict” the UPL value for different averaging times for the MACT floor facilities. This predictive tool has not been previously used and is intended to “ground truth” the variability estimated by the UPL calculation methodology. These analyses are not the result of additional statistical analyses of the stack testing data collected under Part II or any data received under Part III, directly.

Note: These results have not been through an extensive QA.

General Approach

1. Part II data from 87 units were evaluated for data completeness and hours flagged as invalid were removed prior to conducting any calculations.
2. For each unit, each hour of data was evaluated to determine the operating load (gross MW) and to determine if zero emissions were reported for the hour. Hours of zero reported emissions were excluded from the calculation of daily averages.
3. Hours were classified as startup or shutdown periods if the gross megawatts recorded for the hour were less than 5 percent of the maximum hourly generating rate recorded in the data set. These hours were not included in the calculation of daily averages. Daily averages were calculated in accordance with Equation 19-19 from Method 19.
4. Contiguous six-hour periods of valid CEMS data at operating conditions equivalent to typical stack testing conditions (i.e., steady-state flow rate and steady load at greater than 90 percent of the maximum recorded operating load) were used to calculate all the short-term emission rate averages occurring in the data set that were analogous to short-term stack test averages; these periods are referred to as “surrogate stack tests” in this memo.

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5. All averaging periods calculated (30-day, 60-day, 90-day, 180-day, and 360-day) excluded startup and shutdown periods.
6. For each averaging period analyzed, the variability ratio of [the 99th percentile long-term average] to [the 3rd percentile surrogate stack test value] was calculated for each operating unit with a sufficient number of hourly records to calculate at least one long-term period. These percentiles were used to eliminate outliers in the data sets.
7. The variability ratios for all units within a given averaging period data set were used to develop a general equation defining the relationship between the 99th percentile long-term average and the near-minimum achieved surrogate stack test. The general form of the equation is presented as Equation 1:

[Equation 1] $y = Cx^{-z}$

Where y = the estimated long term emissions average
 x = the near-minimum short-term emissions average
 z = was a calculated exponent derived from all available CEMS hourly data.
 C = was a calculated coefficient derived from all available CEMS hourly data.

8. For each averaging period analyzed, the general equation, developed in step 6, was used to transform short-term emissions data for each unit floor into an estimate of the 99th percentile long-term performance for the floor unit. The transformed estimates were calculated by inserting the minimum actual stack test data from each of the 47 units into the general equation from step 6. Appendix A of this memorandum only includes the two plots utilized to determine the equation for transforming MACT floor stack test averages to 30-day averages. The attached spreadsheets contain the plots of all other averaging periods.
9. The upper predictive limit for each long-term average Hg emissions rate was calculated for the floor units using the equation from step 6. Only the minimum test value (i.e., row 5 in the UPL spreadsheet) was used; all other stack test rows previously used to determine unit-specific variability were excluded.

Conclusion

Table 1 presents the results of the analysis of what the Hg MACT floor for existing coal units would look like if EPA decides to promulgate a compliance period longer than 30 days. As shown in Table 1, the amount of data available for each averaging period analysis varied. For example, only 23 units had sufficient data to calculate at least one 360-day average. Since the objective of this analysis was to compare achievable emissions rates based on the duration of the

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averaging period, the analysis used only the 23 units with sufficient data to calculate all averaging periods as a “control” to assess the impact of comparing the different data sets.

Table 1 – UPL’s Calculated with All Available Data

Average Period (days)	Available CEMS Data Sets	Calculated UPL With All Available CEMS Data (lb Hg/MMBtu)
30 ¹	87	1.11E-06
60	83	1.01E-06
90	77	9.13E-07
180	66	8.04E-07
360	23	7.60E-07

To quantify the effect of the reduction in the count of available datasets with sufficient data as the averaging periods increase, the analysis also includes a series of UPL calculations using only the “control” data set. Table 2 presents a comparison of the calculated UPLs for each averaging period without the analytical artifacts caused by the limited availability of very long-term (i.e., semi-annual and annual) CEMS data.

Table 2 – UPL’s Calculated with Control Data (23 Units Only)

Average Period (days)	Available CEMS Data Sets	Calculated UPL With Control CEMS Data (lb Hg/MMBtu)
30 ²	23	1.32E-06
60	23	1.13E-06
90	23	1.03E-06
180	23	9.17E-07
360	23	7.60E-07

The data in Table 2 confirms that an appropriate ratio between a 30-day compliance period and a 360-day compliance period is approximately 60 percent. This is consistent with the ratio

¹ Note that the data set of 87 units utilized to derive the UPL of 1.11E-06 is presented in Appendix A, Figure A-1.

² Note that the data set of 23 units utilized to derive the UPL of 1.32E-06 is presented in Appendix A, Figure A-2.

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achieved by San Juan Unit 4 based on the maximum averages recorded by CEMS with no statistical variability added.

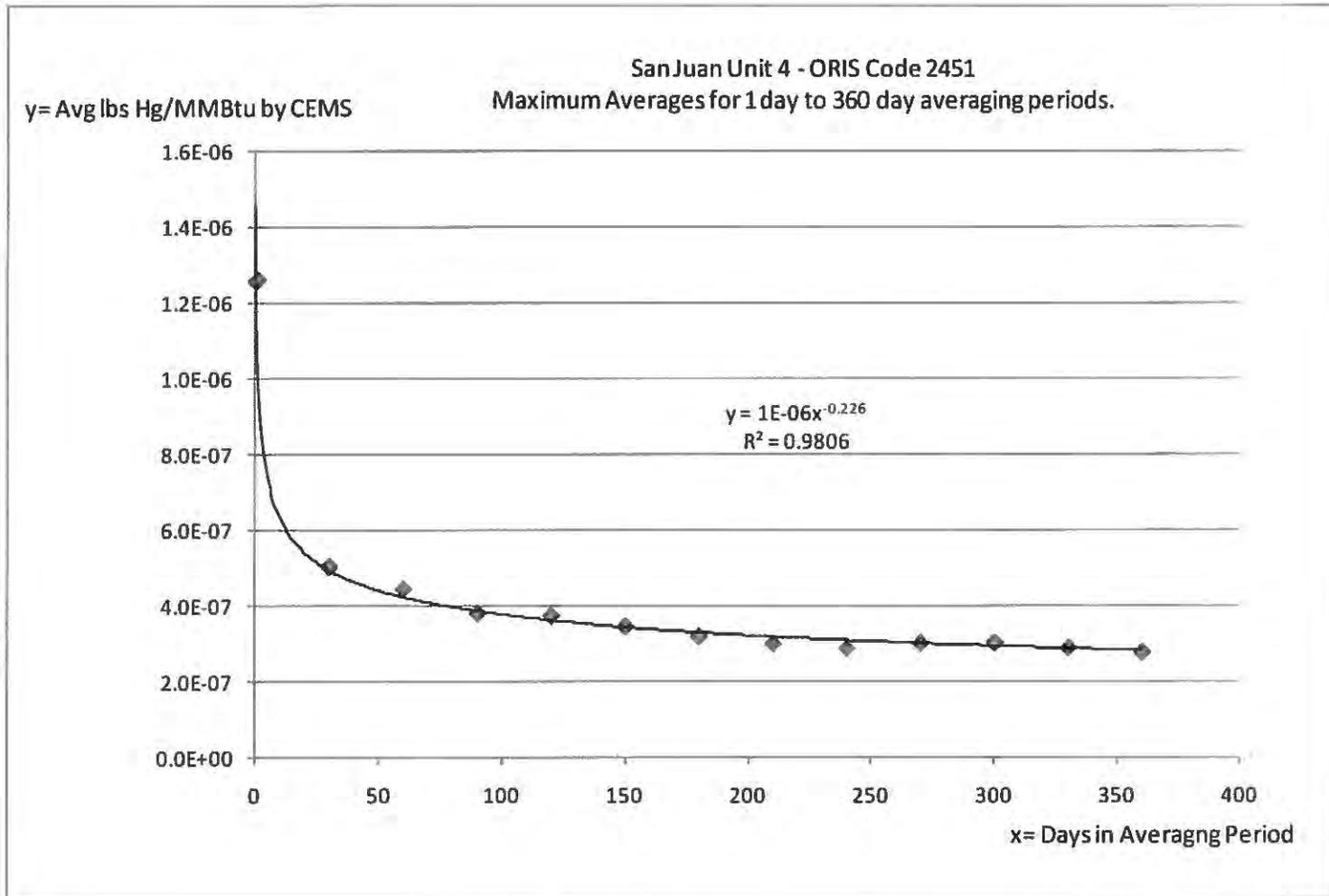
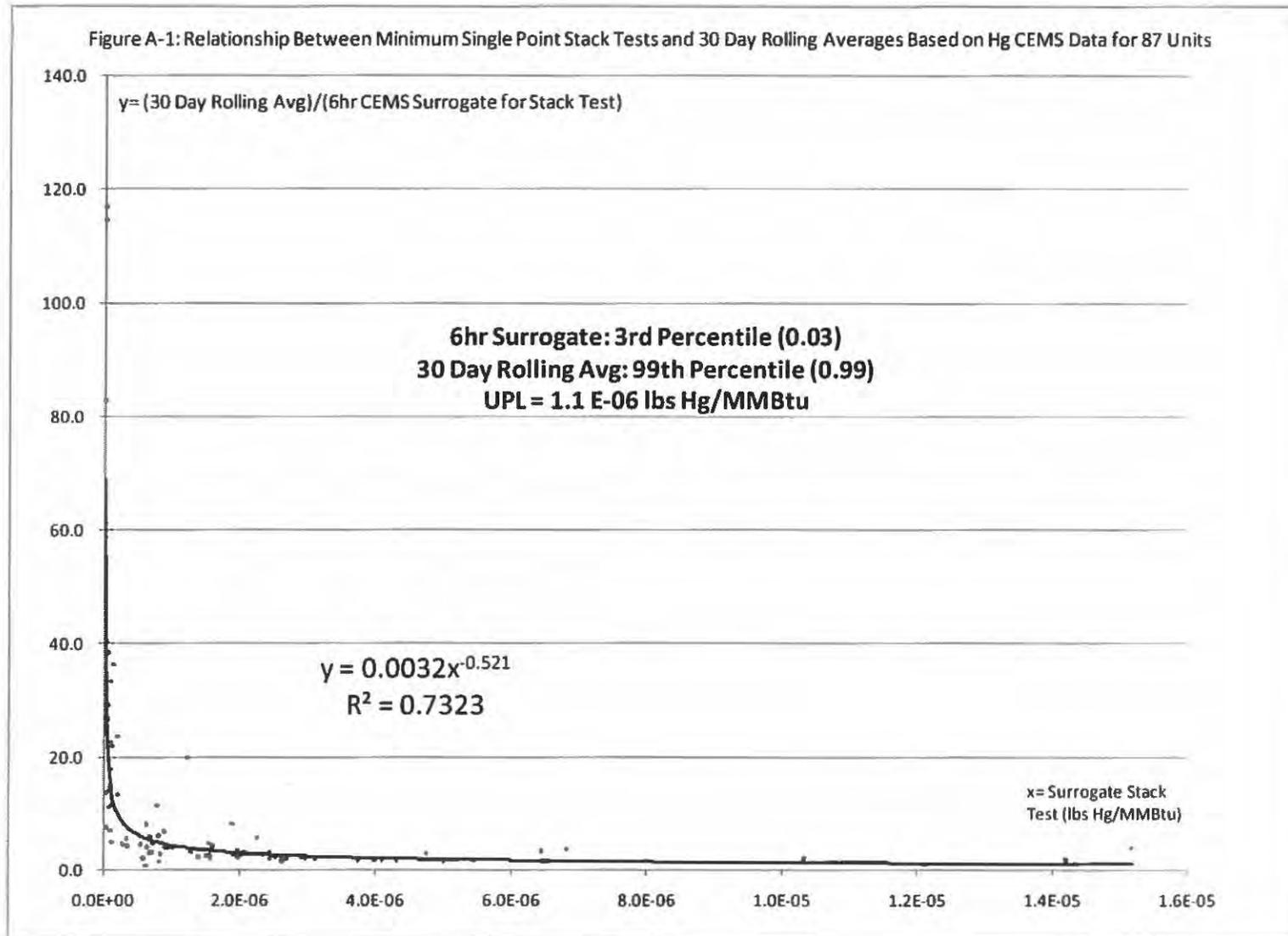


Figure 1.-San Juan Unit 4 Actual CEMS Data Averages

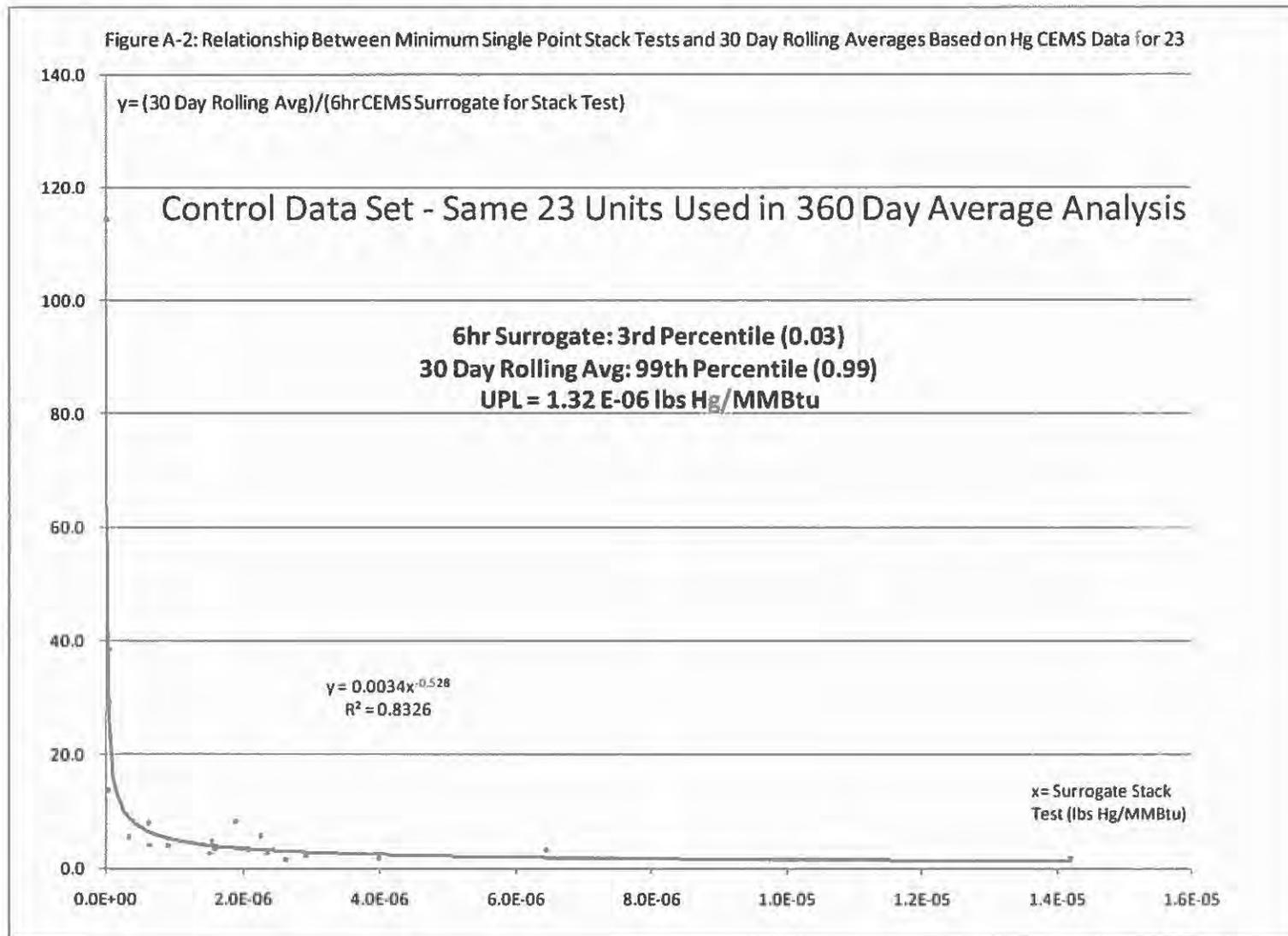
Appendix A

Typical Data Sets Used to Derive Average Data Sets

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Attachment E

Email from PJ Becker, IEPA, to David E. Bloomberg,
IEPA, et al. (Jan. 23, 2017, 08:03am CST)

Vetterhoffer, Dana

From: Armitage, Julie
Sent: Monday, January 23, 2017 10:02 AM
To: Vetterhoffer, Dana; Becker, PJ; Bloomberg, David E.
Subject: RE: Dynegey's MPS/CPS/IMR documents

From: Vetterhoffer, Dana
Sent: Monday, January 23, 2017 10:00 AM
To: Becker, PJ; Bloomberg, David E.
Cc: Armitage, Julie
Subject: RE: Dynegey's MPS/CPS/IMR documents

From: Becker, PJ
Sent: Monday, January 23, 2017 8:03 AM
To: Bloomberg, David E.; Vetterhoffer, Dana
Cc: Armitage, Julie
Subject: Dynegey's MPS/CPS/IMR documents

I dropped off a copy of Dynegey's MPS/CPS/IMR documents in your mail box or office.

PJ

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Attachment F

Email from Dana Vetterhoffer, Deputy General Counsel, Air Regulatory Unit, IEPA, to Renee Cipriano, Schiff Hardin LLP (May 11, 2017 4:03pm CST)

Roccaforte, Gina

From: Vetterhoffer, Dana
Sent: Thursday, May 11, 2017 4:03 PM
To: Cipriano, Renee (RCipriano@schiffhardin.com)
Subject: MPS Draft Revisions
Attachments: Part 225 Discussion Draft 5-1.docx

Hi Renee. Attached are the Agency's draft revisions to the MPS, for your and Dynegy's review. Please direct any proposed changes, comments, or questions to Gina Roccaforte or myself.

Thanks,

Dana Vetterhoffer
Deputy General Counsel, Air Regulatory Unit
Illinois Environmental Protection Agency
(217)782-5544 fax: (217)782-9807

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TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE B: AIR POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER c: EMISSION STANDARDS AND LIMITATIONS FOR STATIONARY SOURCES

PART 225
CONTROL OF EMISSIONS FROM LARGE COMBUSTION SOURCES

SUBPART A: GENERAL PROVISIONS

Section	
225.100	Severability
225.120	Abbreviations and Acronyms
225.130	Definitions
225.140	Incorporations by Reference

SUBPART B: CONTROL OF MERCURY EMISSIONS FROM COAL-FIRED ELECTRIC GENERATING UNITS

Section	
225.200	Purpose
225.202	Measurement Methods
225.205	Applicability
225.210	Compliance Requirements
225.220	Clean Air Act Permit Program (CAAPP) Permit Requirements
225.230	Emission Standards for EGUs at Existing Sources
225.232	Averaging Demonstrations for Existing Sources
225.233	Multi-Pollutant Standards (MPS)
225.234	Temporary Technology-Based Standard for EGUs at Existing Sources
225.235	Units Scheduled for Permanent Shut Down
225.237	Emission Standards for New Sources with EGUs
225.238	Temporary Technology-Based Standard for New Sources with EGUs
225.240	General Monitoring and Reporting Requirements
225.250	Initial Certification and Recertification Procedures for Emissions Monitoring
225.260	Out of Control Periods for Emission Monitors
225.261	Additional Requirements to Provide Heat Input Data

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225.263	Monitoring of Gross Electrical Output
225.265	Coal Analysis for Input Mercury Levels
225.270	Notifications
225.290	Recordkeeping and Reporting
225.291	Combined Pollutant Standard: Purpose
225.292	Applicability of the Combined Pollutant Standard
225.293	Combined Pollutant Standard: Notice of Intent
225.294	Combined Pollutant Standard: Control Technology Requirements and Emissions Standards for Mercury
225.295	Combined Pollutant Standard: Emissions Standards for NO _x and SO ₂
225.296	Combined Pollutant Standard: Control Technology Requirements for NO _x , SO ₂ , and PM Emissions
225.297	Combined Pollutant Standard: Permanent Shut-Downs
225.298	Combined Pollutant Standard: Requirements for NO _x and SO ₂ Allowances
225.299	Combined Pollutant Standard: Clean Air Act Requirements

SUBPART C: CLEAN AIR ACT INTERSTATE RULE (CAIR) SO₂ TRADING PROGRAM

Section	
225.300	Purpose
225.305	Applicability
225.310	Compliance Requirements
225.315	Appeal Procedures
225.320	Permit Requirements
225.325	Trading Program

SUBPART D: CAIR NO_x ANNUAL TRADING PROGRAM

Section	
225.400	Purpose
225.405	Applicability
225.410	Compliance Requirements
225.415	Appeal Procedures
225.420	Permit Requirements
225.425	Annual Trading Budget
225.430	Timing for Annual Allocations
225.435	Methodology for Calculating Annual Allocations
225.440	Annual Allocations
225.445	New Unit Set-Aside (NUSA)
225.450	Monitoring, Recordkeeping and Reporting Requirements for Gross Electrical Output and Useful Thermal Energy
225.455	Clean Air Set-Aside (CASA)
225.460	Energy Efficiency and Conservation, Renewable Energy, and Clean Technology Projects
225.465	Clean Air Set-Aside (CASA) Allowances
225.470	Clean Air Set-Aside (CASA) Applications

- 225.475 Agency Action on Clean Air Set-Aside (CASA) Applications
- 225.480 Compliance Supplement Pool

SUBPART E: CAIR NO_x OZONE SEASON TRADING PROGRAM

- | Section | Purpose |
|---------|--|
| 225.500 | Purpose |
| 225.505 | Applicability |
| 225.510 | Compliance Requirements |
| 225.515 | Appeal Procedures |
| 225.520 | Permit Requirements |
| 225.525 | Ozone Season Trading Budget |
| 225.530 | Timing for Ozone Season Allocations |
| 225.535 | Methodology for Calculating Ozone Season Allocations |
| 225.540 | Ozone Season Allocations |
| 225.545 | New Unit Set-Aside (NUSA) |
| 225.550 | Monitoring, Recordkeeping and Reporting Requirements for Gross Electrical Output and Useful Thermal Energy |
| 225.555 | Clean Air Set-Aside (CASA) |
| 225.560 | Energy Efficiency and Conservation, Renewable Energy, and Clean Technology Projects |
| 225.565 | Clean Air Set-Aside (CASA) Allowances |
| 225.570 | Clean Air Set-Aside (CASA) Applications |
| 225.575 | Agency Action on Clean Air Set-Aside (CASA) Applications |

SUBPART F: COMBINED POLLUTANT STANDARDS

- 225.600 Purpose (Repealed)
- 225.605 Applicability (Repealed)
- 225.610 Notice of Intent (Repealed)
- 225.615 Control Technology Requirements and Emissions Standards for Mercury (Repealed)
- 225.620 Emissions Standards for NO_x and SO₂ (Repealed)
- 225.625 Control Technology Requirements for NO_x, SO₂, and PM Emissions (Repealed)
- 225.630 Permanent Shut-Downs (Repealed)
- 225.635 Requirements for CAIR SO₂, CAIR NO_x, and CAIR NO_x Ozone Season Allowances (Repealed)
- 225.640 Clean Air Act Requirements (Repealed)
- 225.APPENDIX A Specified EGUs for Purposes of the CPS Midwest Generation's Coal-Fired Boilers as of July 1, 2006
- 225.APPENDIX B Continuous Emission Monitoring Systems for Mercury
 - 225.EXHIBIT A Specifications and Test Procedures
 - 225. EXHIBIT B Quality Assurance and Quality Control Procedures
 - 225. EXHIBIT C Conversion Procedures
 - 225 EXHIBIT D Quality Assurance and Operating Procedures for Sorbent Trap Monitoring Systems

AUTHORITY: Implementing and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/27].

SOURCE: Adopted in R06-25 at 31 Ill. Reg. 129, effective December 21, 2006; amended in R06-26 at 31 Ill. Reg. 12864, effective August 31, 2007; amended in R09-10 at 33 Ill. Reg. 10427, effective June 26, 2009; amended in R15-21 at 39 Ill. Reg. 16225, effective December 7, 2015; amended in R17-__ at __ Ill. Reg. _____, effective _____.

SUBPART B: CONTROL OF MERCURY EMISSIONS FROM COAL-FIRED ELECTRIC GENERATING UNITS

Section 225.233 Multi-Pollutant Standards (MPS)

a) General.

- 1) As an alternative to compliance with the emissions standards of Section 225.230(a), the owner of eligible EGUs may elect for those EGUs to demonstrate compliance pursuant to this Section, which establishes control requirements and standards for emissions of NO_x and SO₂, as well as for emissions of mercury.
- 2) For the purpose of this Section, the following requirements apply:
 - A) An eligible EGU is an EGU that is located in Illinois and which commenced commercial operation on or before December 31, 2004; and
 - B) Ownership of an eligible EGU is determined based on direct ownership, by the holding of a majority interest in a company that owns the EGU or EGUs, or by the common ownership of the company that owns the EGU, whether through a parent-subsidiary relationship, as a sister corporation, or as an affiliated corporation with the same parent corporation, provided that the owner has the right or authority to submit a CAAPP application on behalf of the EGU.
- 3) The owner of one or more EGUs electing to demonstrate compliance with this Subpart B pursuant to this Section must submit an application for a CAAPP permit modification to the Agency, as provided in Section 225.220, that includes the information specified in subsection (b) of this Section and which clearly states the owner's election to demonstrate compliance pursuant to this Section 225.233.
 - A) If the owner of one or more EGUs elects to demonstrate compliance with this Subpart pursuant to this Section, then all

EGUs it owns in Illinois as of July 1, 2006, as defined in subsection (a)(2)(B) of this Section, must be thereafter subject to the standards and control requirements of this Section, except as provided in subsection (a)(3)(B). Such EGUs must be referred to as a Multi-Pollutant Standard (MPS) Group.

B) Notwithstanding the foregoing, the owner may exclude from an MPS Group any EGU scheduled for permanent shutdown that the owner so designates in its CAAPP application required to be submitted pursuant to subsection (a)(3) of this Section, with compliance for such units to be achieved by means of Section 225.235.

4) Notwithstanding any contrary provision in this subsection (a), on and after January 1, 2018:

A) The following EGUs shall be merged into a new MPS Group: Baldwin Units 1, 2, and 3; Coffeen Units 1 and 2; Duck Creek Unit 1; E.D. Edwards Units 2 and 3; Havana Unit 9; Hennepin Units 1 and 2; Joppa Units 1, 2, 3, 4, 5, and 6; and Newton Unit 1. If one or more of the above EGUs are transferred to a different owner, such EGU or EGUs will become a separate MPS Group on and after the date of transfer. For purposes of this Section, "transfer" means sale, conveyance, transfer, or other change in EGU ownership of an EGU; and

B) No other EGUs except for those listed in subsection (a)(4)(A) of this Section are subject to the requirements of this Section.

54) When an EGU is subject to the requirements of this Section, the requirements apply to all owners or operators of the EGU.

b) Notice of Intent.

The owner of one or more EGUs that intends to comply with this Subpart B by means of this Section must notify the Agency of its intention by December 31, 2007. The following information must accompany the notification:

1) The identification of each EGU that will be complying with this Subpart B by means of the multi-pollutant standards contained in this Section, with evidence that the owner has identified all EGUs that it owned in Illinois as of July 1, 2006 and which commenced commercial operation on or before December 31, 2004;

2) If an EGU identified in subsection (b)(1) of this Section is also owned or operated by a person different than the owner submitting the notice of

intent, a demonstration that the submitter has the right to commit the EGU or authorization from the responsible official for the EGU accepting the application;

- 3) The Base Emission Rates for the EGUs, with copies of supporting data and calculations;
 - 4) A summary of the current control devices installed and operating on each EGU and identification of the additional control devices that will likely be needed for the each EGU to comply with emission control requirements of this Section, including identification of each EGU in the MPS group that will be addressed by subsection (c)(1)(B) of this Section, with information showing that the eligibility criteria for this subsection (b) are satisfied; and
 - 5) Identification of each EGU that is scheduled for permanent shut down, as provided by Section 225.235, which will not be part of the MPS Group and which will not be demonstrating compliance with this Subpart B pursuant to this Section.
- c) Control Technology Requirements for Emissions of Mercury.
- 1) Requirements for EGUs in an MPS Group.
 - A) For each EGU in an MPS Group other than an EGU that is addressed by subsection (c)(1)(B) of this Section for the period beginning July 1, 2009 (or December 31, 2009 for an EGU for which an SO₂ scrubber or fabric filter is being installed to be in operation by December 31, 2009), and ending on December 31, 2014 (or such earlier date that the EGU is subject to the mercury emission standard in subsection (d)(1) of this Section), the owner or operator of the EGU must install, to the extent not already installed, and properly operate and maintain one of the following emission control devices:
 - i) A Halogenated Activated Carbon Injection System, complying with the sorbent injection requirements of subsection (c)(2) of this Section, except as may be otherwise provided by subsection (c)(4) of this Section, and followed by a Cold-Side Electrostatic Precipitator or Fabric Filter; or
 - ii) If the boiler fires bituminous coal, a Selective Catalytic Reduction (SCR) System and an SO₂ Scrubber.
 - B) An owner of an EGU in an MPS Group has two options under this subsection (c). For an MPS Group that contains EGUs smaller

than 90 gross MW in capacity, the owner may designate any such EGUs to be not subject to subsection (c)(1)(A) of this Section. Or, for an MPS Group that contains EGUs with gross MW capacity of less than 115 MW, the owner may designate any such EGUs to be not subject to subsection (c)(1)(A) of this Section, provided that the aggregate gross MW capacity of the designated EGUs does not exceed 4% of the total gross MW capacity of the MPS Group. For any EGU subject to one of these two options, unless the EGU is subject to the emission standards in subsection (d)(2) of this Section, beginning on January 1, 2013, and continuing until such date that the owner or operator of the EGU commits to comply with the mercury emission standard in subsection (d)(2) of this Section, the owner or operator of the EGU must install and properly operate and maintain a Halogenated Activated Carbon Injection System that complies with the sorbent injection requirements of subsection (c)(2) of this Section, except as may be otherwise provided by subsection (c)(4) of this Section, and followed by either a Cold-Side Electrostatic Precipitator or Fabric Filter. The use of a properly installed, operated, and maintained Halogenated Activated Carbon Injection System that meets the sorbent injection requirements of subsection (c)(2) of this Section is defined as the "principal control technique."

- 2) For each EGU for which injection of halogenated activated carbon is required by subsection (c)(1) of this Section, the owner or operator of the EGU must inject halogenated activated carbon in an optimum manner, which, except as provided in subsection (c)(4) of this Section, is defined as all of the following:
 - A) The use of an injection system designed for effective absorption of mercury, considering the configuration of the EGU and its ductwork;
 - B) The injection of halogenated activated carbon manufactured by Alstom, Norit, or Sorbent Technologies, Calgon Carbon's FLUEPAC CF Plus, or Calgon Carbon's FLUEPAC MC Plus, or the injection of any other halogenated activated carbon or sorbent that the owner or operator of the EGU has demonstrated to have similar or better effectiveness for control of mercury emissions; and
 - C) The injection of sorbent at the following minimum rates, as applicable:
 - i) For an EGU firing subbituminous coal, 5.0 lbs per million actual cubic feet or, for any cyclone-fired EGU that will

install a scrubber and baghouse by December 31, 2012, and which already meets an emission rate of 0.020 lbs mercury/GWh gross electrical output or at least 75 percent reduction of input mercury, 2.5 lbs per million actual cubic feet;

- ii) For an EGU firing bituminous coal, 10.0 lbs per million actual cubic feet for any cyclone-fired EGU that will install a scrubber and baghouse by December 31, 2012, and which already meets an emission rate of 0.020 lb mercury/GWh gross electrical output or at least 75 percent reduction of input mercury, 5.0 lbs per million actual cubic feet;
 - iii) For an EGU firing a blend of subbituminous and bituminous coal, a rate that is the weighted average of the above rates, based on the blend of coal being fired; or
 - iv) A rate or rates set lower by the Agency, in writing, than the rate specified in any of subsections (c)(2)(C)(i), (c)(2)(C)(ii), or (c)(2)(C)(iii) of this Section on a unit-specific basis, provided that the owner or operator of the EGU has demonstrated that such rate or rates are needed so that carbon injection will not increase particulate matter emissions or opacity so as to threaten noncompliance with applicable requirements for particulate matter or opacity.
- D) For the purposes of subsection (c)(2)(C) of this Section, the flue gas flow shall be the gas flow rate in the stack for all units except for those equipped with activated carbon injection prior to a hot-side electrostatic precipitator; for units equipped with activated carbon injection prior to a hot-side electrostatic precipitator, the flue gas flow rate shall be the gas flow rate at the inlet to the hot-side electrostatic precipitator, which shall be determined as the stack flow rate adjusted through the use of Charles' Law for the differences in gas temperatures in the stack and at the inlet to the electrostatic precipitator ($V_{esp} = V_{stack} \times T_{esp}/T_{stack}$, where V = gas flow rate in acf and T = gas temperature in Kelvin or Rankine
- 3) The owner or operator of an EGU that seeks to operate an EGU with an activated carbon injection rate or rates that are set on a unit-specific basis pursuant to subsection (c)(2)(C)(iv) of this Section must submit an application to the Agency proposing such rate or rates, and must meet the requirements of subsections (c)(3)(A) and (c)(3)(B) of this Section, subject to the limitations of subsections (c)(3)(C) and (c)(3)(D) of this Section:

- A) The application must be submitted as an application for a new or revised federally enforceable operating permit for the EGU, and it must include a summary of relevant mercury emission data for the EGU, the unit-specific injection rate or rates that are proposed, and detailed information to support the proposed injection rate or rates; and
 - B) This application must be submitted no later than the date that activated carbon must first be injected. For example, the owner or operator of an EGU that must inject activated carbon pursuant to subsection (c)(1)(A) of this subsection must apply for unit-specific injection rate or rates by July 1, 2009. Thereafter, the owner or operator of the EGU may supplement its application; and
 - C) Any decision of the Agency denying a permit or granting a permit with conditions that set a lower injection rate or rates may be appealed to the Board pursuant to Section 39 of the Act; and
 - D) The owner or operator of an EGU may operate at the injection rate or rates proposed in its application until a final decision is made on the application, including a final decision on any appeal to the Board.
- 4) During any evaluation of the effectiveness of a listed sorbent, an alternative sorbent, or other technique to control mercury emissions, the owner or operator of an EGU need not comply with the requirements of subsection (c)(2) of this Section for any system needed to carry out the evaluation, as further provided as follows:
- A) The owner or operator of the EGU must conduct the evaluation in accordance with a formal evaluation program submitted to the Agency at least 30 days prior to commencement of the evaluation;
 - B) The duration and scope of the evaluation may not exceed the duration and scope reasonably needed to complete the desired evaluation of the alternative control technique, as initially addressed by the owner or operator in a support document submitted with the evaluation program;
 - C) The owner or operator of the EGU must submit a report to the Agency no later than 30 days after the conclusion of the evaluation that describes the evaluation conducted and which provides the results of the evaluation; and
 - D) If the evaluation of the alternative control technique shows less effective control of mercury emissions from the EGU than was achieved with the principal control technique, the owner or

operator of the EGU must resume use of the principal control technique. If the evaluation of the alternative control technique shows comparable effectiveness to the principal control technique, the owner or operator of the EGU may either continue to use the alternative control technique in a manner that is at least as effective as the principal control technique, or it may resume use of the principal control technique. If the evaluation of the alternative control technique shows more effective control of mercury emissions than the control technique, the owner or operator of the EGU must continue to use the alternative control technique in a manner that is more effective than the principal control technique, so long as it continues to be subject to this subsection (c).

- 5) In addition to complying with the applicable recordkeeping and monitoring requirements in Sections 225.240 through 225.290, the owner or operator of an EGU that elects to comply with this Subpart B by means of this Section must also comply with the following additional requirements:
 - A) For the first 36 months that injection of sorbent is required, it must maintain records of the usage of sorbent, the fluegas flow rate from the EGU (and, if the unit is equipped with activated carbon injection prior to a hot-side electrostatic precipitator, flue gas temperature at the inlet of the hot-side electrostatic precipitator and in the stack), and the sorbent feed rate, in pounds per million actual cubic feet of flue, on a weekly average;
 - B) After the first 36 months that injection of sorbent is required, it must monitor activated sorbent feed rate to the EGU, gas flow rate in the stack, and, if the unit is equipped with activated carbon injection prior to a hot-side electrostatic precipitator, flue gas temperature at the inlet of the hot-side electrostatic precipitator and in the stack. It must automatically record this data and the sorbent carbon feed rate, in pounds per million actual cubic feet of flue gas, on an hourly average; and
 - C) If a blend of bituminous and subbituminous coal is fired in the EGU, it must keep records of the amount of each type of coal burned and the required injection rate for injection of activated carbon, on a weekly basis.
- 6) Until June 30, 2012, as an alternative to the CEMS or excepted monitoring system (sorbent trap system) monitoring, recordkeeping, and reporting requirements in Sections 225.240 through 225.290, the owner or operator of an EGU may elect to comply with the emissions testing, monitoring,

recordkeeping, and reporting requirements in Section 225.239(c), (d), (e), (f)(1) and (2), (h)(2), (i)(3) and (4), and (j)(1).

- 7) In addition to complying with the applicable reporting requirements in Sections 225.240 through 225.290, the owner or operator of an EGU that elects to comply with this Subpart B by means of this Section must also submit quarterly reports for the recordkeeping and monitoring conducted pursuant to subsection (c)(5) of this Section.
- d) Emission Standards for Mercury.
- 1) For each EGU in an MPS Group that is not addressed by subsection (c)(1)(B) of this Section, beginning January 1, 2015 (or such earlier date when the owner or operator of the EGU notifies the Agency that it will comply with these standards) and continuing thereafter, the owner or operator of the EGU must comply with one of the following standards on a rolling 12-month basis:
 - A) An emission standard of 0.0080 lb mercury/GWh gross electrical output; or
 - B) A minimum 90-percent reduction of input mercury.
 - 2) For each EGU in an MPS Group that has been addressed under subsection (c)(1)(B) of this Section, beginning on the date when the owner or operator of the EGU notifies the Agency that it will comply with these standards and continuing thereafter, the owner or operator of the EGU must comply with one of the following standards on a rolling 12-month basis:
 - A) An emission standard of 0.0080 lb mercury/GWh gross electrical output; or
 - B) A minimum 90-percent reduction of input mercury.
 - 3) Compliance with the mercury emission standard or reduction requirement of this subsection (d) must be calculated in accordance with Section 225.230(a) or (d), or Section 225.232 until December 31, 2013.
 - 4) Until June 30, 2012, as an alternative to demonstrating compliance with the emissions standards in this subsection (d), the owner or operator of an EGU may elect to comply with the emissions testing requirements in Section 225.239(a)(4), (b), (c), (d), (e), (f), (g), (h), (i), and (j) of this Subpart.
- e) Emission Standards for NO_x and SO₂.

- 1) NO_x Emission Standards.
 - A) Beginning in calendar year 2012 and continuing through calendar year 2017 in each calendar thereafter, for the EGUs in each MPS Group, the owner and operator of the EGUs must comply with an overall NO_x annual emission rate of no more than 0.11 lb/million Btu or an emission rate equivalent to 52 percent of the Base Annual Rate of NO_x emissions, whichever is more stringent.
 - B) Beginning in the 2012 ozone season and continuing through the 2017 and continuing in each ozone season thereafter, for the EGUs in each MPS Group, the owner and operator of the EGUs must comply with an overall NO_x seasonal emission rate of no more than 0.11 lb/million Btu or an emission rate equivalent to 80 percent of the Base Seasonal Rate of NO_x emissions, whichever is more stringent.
 - C) Except as otherwise provided in subsection (f) of this Section, beginning in calendar year 2018 and continuing in each calendar year thereafter, the owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined annual NO_x emissions in excess of 25,000 tons from all EGUs.
 - D) Except as otherwise provided in subsection (f) of this Section, beginning in the year 2018 and continuing in each year thereafter, from May 1 to September 30, the owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined NO_x emissions in excess of 11,500 tons from all EGUs.
 - E) On and after January 1, 2018, the owner and operator of Baldwin Units 1, 2, and 3; Coffeen Units 1 and 2; Duck Creek Unit 1; E.D. Edwards Unit 3; and Havana Unit 9 must:
 - i) Operate existing SCR control systems on the EGUs in accordance with good operating practices at all times the EGUs are operating; and
 - ii) From May 1 to September 30, comply with a combined NO_x average emission rate of no more than 0.10 lb/mmBtu.
- 2) SO₂ Emission Standards.

- A) Beginning in calendar year 2013 and continuing in calendar year 2014, for the EGUs in each MPS Group, the owner and operator of the EGUs must comply with an overall SO₂ annual emission rate of 0.33 lb/million Btu or a rate equivalent to 44 percent of the Base Rate of SO₂ emissions, whichever is more stringent.
- B) Beginning in calendar year 2015 and continuing through calendar year 2017 in each calendar year thereafter, for the EGUs in each MPS Grouping, the owner and operator of the EGUs must comply with an overall annual emission rate for SO₂ of 0.25 lbs/million Btu or a rate equivalent to 35 percent of the Base Rate of SO₂ emissions, whichever is more stringent.
- C) Except as otherwise provided in subsection (f) of this Section, beginning in calendar year 2018 and continuing in each calendar year thereafter, the owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined annual SO₂ emissions in excess of 55,000 tons from all EGUs.
- D) Beginning in calendar year 2018 and continuing in each calendar year thereafter, the owner and operator of Joppa Units 1, 2, 3, 4, 5, and 6 must not cause or allow to be discharged into the atmosphere combined annual SO₂ emissions in excess of 19,860 tons from such EGUs.
- E) Beginning in calendar year 2018 and continuing in each calendar year thereafter, the owner and operator of each EGU in an MPS Group must comply with an annual SO₂ emission rate of no more than 0.55 lb/mmBtu for each EGU.
- f) Shutdown or Transfer of EGU or EGUs in an MPS Group.
 - 1) If one or more EGUs in an MPS Group permanently shut down, such EGU or EGUs are no longer part of an MPS Group and no longer subject to the requirements of this Section. For the remaining EGUs in an MPS Group, the combined emissions limitations set forth in subsections (e)(1) and (e)(2) of this Section, as applicable, must be adjusted by subtracting from those limitations the applicable unit allocation amounts set forth in Columns A, B, and C in subsection (f)(3) of this Section that are attributable to the shutdown EGU or EGUs. The owner and operator of the EGUs in the MPS Group must comply with the adjusted combined emissions limitations beginning in the calendar year in which the pertinent regional transmission organization approves the removal of the shutdown EGU or EGUs from the electrical grid. The owner and operator must

notify the Agency's Bureau of Air, Compliance Section, in writing within seven days of the date of such approval. The notification must include the following information:

- A) Name and address of the owner and operator;
 - B) List of the EGU or EGUs permanently shut down; and
 - C) For the remaining EGUs in the MPS Group, calculations pursuant to this subsection (f)(1) demonstrating the adjusted combined annual NO_x emissions limitation, the adjusted combined NO_x emissions limitation from May 1 to September 30, and the adjusted combined annual SO₂ emissions limitation that are applicable to the MPS Group.
- 2) If one or more EGUs in an MPS Group are transferred to a different owner:
- A) For the MPS Group from which one or more EGUs is transferred: The combined emissions limitations for the MPS Group set forth in subsections (c)(1) and (c)(2) of this Section, as applicable, must be adjusted by subtracting from those limitations the applicable unit allocation amounts set forth in Columns A, B, and C in subsection (f)(3) of this Section that are attributable to the transferred EGU or EGUs. The owner and operator of the MPS Group must comply with the adjusted emissions limitations beginning in the calendar year in which the transfer takes place.
 - B) For a new MPS Group consisting of the acquired EGU or EGUs:
 - i) The owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined annual NO_x emissions in excess of the applicable annual NO_x limitation from all EGUs. The applicable annual NO_x limitation shall be the sum of the unit allocation amounts attributable to all EGUs in the MPS Group set forth in Column A of subsection (f)(4) of this Section.
 - ii) From May 1 to September 30, the owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined NO_x emissions in excess of the applicable seasonal NO_x limitation from all EGUs. The applicable seasonal NO_x limitation shall be the sum of the unit allocation amounts attributable to all EGUs

in the MPS Group set forth in Column B of subsection (f)(4) of this Section.

iii) The owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined annual SO₂ emissions in excess of the applicable annual SO₂ limitation from all EGUs. The applicable annual SO₂ limitation shall be the sum of the unit allocation amounts attributable to all EGUs in the MPS Group set forth in Column C of subsection (f)(4) of this Section.

C) If any of the EGUs specified in subsection (e)(1)(E) of this Section are transferred to a different owner, the new owner and operator of the EGU or EGUs must comply with the provisions of subsections (e)(1)(E)(i) and (e)(1)(E)(ii) of this Section on and after the date of transfer. If the transfer takes place between May 1 and September 30, the new owner and operator must also demonstrate compliance with the provisions of subsection (e)(1)(E)(ii) of this Section for the entire May 1 through September 30 compliance period.

D) The owner and operator of the EGU or EGUs as of the last day of the applicable compliance period must demonstrate compliance with the emission standards of this Section for the entire applicable compliance period.

3) Unit Allocation Amounts in the Event of Transfer or Shutdown of EGUs.

		<u>Column A. Unit NO_x Allocation Amount (TPY) in the Event of Transfer or Shutdown</u>	<u>Column B. Unit NO_x Allocation Amount (May 1 - Sept 30 Tons) in the Event of Transfer or Shutdown</u>	<u>Column C. Unit SO₂ Allocation Amount (TPY) in the Event of Transfer or Shutdown</u>
A)	<u>Baldwin 1</u>	<u>2,300</u>	<u>1,048</u>	<u>5,800</u>
B)	<u>Baldwin 2</u>	<u>2,200</u>	<u>974</u>	<u>4,700</u>
C)	<u>Baldwin 3</u>	<u>2,300</u>	<u>1,041</u>	<u>5,000</u>
D)	<u>Havana 9</u>	<u>2,000</u>	<u>898</u>	<u>4,300</u>

E)	<u>Hennepin 1</u>	<u>300</u>	<u>130</u>	<u>700</u>
F)	<u>Hennepin 2</u>	<u>900</u>	<u>462</u>	<u>2,000</u>
G)	<u>Coffeen 1</u>	<u>1,200</u>	<u>534</u>	<u>2,600</u>
H)	<u>Coffeen 2</u>	<u>2,000</u>	<u>902</u>	<u>4,400</u>
I)	<u>Duck Creek 1</u>	<u>1,800</u>	<u>818</u>	<u>4,000</u>
J)	<u>E.D. Edwards 2</u>	<u>1,200</u>	<u>540</u>	<u>2,600</u>
K)	<u>E.D. Edwards 3</u>	<u>1,700</u>	<u>747</u>	<u>3,600</u>
L)	<u>Joppa 1</u>	<u>900</u>	<u>374</u>	<u>1,800</u>
M)	<u>Joppa 2</u>	<u>900</u>	<u>374</u>	<u>1,800</u>
N)	<u>Joppa 3</u>	<u>900</u>	<u>374</u>	<u>1,800</u>
O)	<u>Joppa 4</u>	<u>900</u>	<u>374</u>	<u>1,800</u>
P)	<u>Joppa 5</u>	<u>900</u>	<u>374</u>	<u>1,800</u>
Q)	<u>Joppa 6</u>	<u>900</u>	<u>374</u>	<u>1,800</u>
R)	<u>Newton 1</u>	<u>2,700</u>	<u>1,212</u>	<u>5,800</u>

4) Unit Allocation Amounts for EGUs in a New MPS Group.

	<u>Column A.</u>	<u>Column B.</u>	<u>Column C.</u>	
	<u>Unit NO_x</u>	<u>Unit NO_x</u>	<u>Unit SO₂</u>	
	<u>Allocation</u>	<u>Allocation</u>	<u>Allocation</u>	
	<u>Amount</u>	<u>Amount (May</u>	<u>Amount</u>	
	<u>(TPY) for</u>	<u>1 - Sept 30</u>	<u>(TPY) for</u>	
	<u>New MPS</u>	<u>Tons) for New</u>	<u>New MPS</u>	
	<u>Group in the</u>	<u>MPS Group in</u>	<u>Group in the</u>	
	<u>Event of</u>	<u>the Event of</u>	<u>Event of</u>	
	<u>Transfer</u>	<u>Transfer</u>	<u>Transfer</u>	
A)	<u>Baldwin 1</u>	<u>2,100</u>	<u>1,048</u>	<u>2,100</u>
B)	<u>Baldwin 2</u>	<u>1,800</u>	<u>974</u>	<u>1,800</u>
C)	<u>Baldwin 3</u>	<u>2,200</u>	<u>1,041</u>	<u>2,300</u>

D)	<u>Havana 9</u>	<u>1,400</u>	<u>898</u>	<u>1,400</u>
E)	<u>Hennepin 1</u>	<u>200</u>	<u>130</u>	<u>600</u>
F)	<u>Hennepin 2</u>	<u>800</u>	<u>462</u>	<u>1,900</u>
G)	<u>Coffeen 1</u>	<u>900</u>	<u>534</u>	<u>900</u>
H)	<u>Coffeen 2</u>	<u>1,800</u>	<u>902</u>	<u>4,300</u>
I)	<u>Duck Creek 1</u>	<u>1,100</u>	<u>818</u>	<u>3,900</u>
J)	<u>E.D. Edwards 2</u>	<u>1,100</u>	<u>540</u>	<u>2,500</u>
K)	<u>E.D. Edwards 3</u>	<u>1,600</u>	<u>747</u>	<u>3,500</u>
L)	<u>Joppa 1</u>	<u>800</u>	<u>374</u>	<u>1,700</u>
M)	<u>Joppa 2</u>	<u>800</u>	<u>374</u>	<u>1,700</u>
N)	<u>Joppa 3</u>	<u>800</u>	<u>374</u>	<u>1,700</u>
O)	<u>Joppa 4</u>	<u>800</u>	<u>374</u>	<u>1,700</u>
P)	<u>Joppa 5</u>	<u>800</u>	<u>374</u>	<u>1,700</u>
Q)	<u>Joppa 6</u>	<u>800</u>	<u>374</u>	<u>1,700</u>
R)	<u>Newton 1</u>	<u>2,600</u>	<u>1,212</u>	<u>5,700</u>

5) If one or more EGUs in an MPS Group are transferred to a different owner:

A) The transferring owner must notify the Agency's Bureau of Air, Compliance Section, in writing within seven days of the date of transfer. The notification must include the following information:

- i) Name and address of the transferring owner and operator;
- ii) List of the EGUs transferred;
- iii) For the remaining EGUs in the MPS Group, calculations pursuant to subsection (f)(2)(A) of this Section demonstrating the adjusted combined annual NO_x emissions limitation, the adjusted combined NO_x emissions

limitation from May 1 to September 30, and the adjusted combined annual SO₂ emissions limitation that are applicable to the MPS Group;

iv) Name and address of the new owner and operator; and

v) Date of transfer.

B) The acquiring owner must notify the Agency's Bureau of Air, Compliance Section, in writing within seven days of the date of transfer. The notification must include the following information:

i) Name and address of the acquiring owner and operator;

ii) Name and address of the transferring owner and operator;

iii) List of the EGUs acquired;

iv) Calculations pursuant to subsection (f)(2)(B) of this Section demonstrating the combined annual NO_x emissions limitation, the combined NO_x emissions limitation from May 1 to September 30, and the combined annual SO₂ emissions limitation that are applicable to the acquiring owner and operator's MPS Group; and

v) Date of transfer.

~~3) Ameren MPS Group Multi-Pollutant Standard~~

~~A) Notwithstanding the provisions of subsections (e)(1) and (2) of this Section, this subsection (e)(3) applies to the Ameren MPS Group as described in the notice of intent submitted by Ameren Energy Resources in accordance with subsection (b) of this Section.~~

~~B) NO_x Emission Standards:~~

~~i) Beginning in the 2010 ozone season and continuing in each ozone season thereafter, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall NO_x seasonal emission rate of no more than 0.14 lb/million Btu.~~

~~ii) Beginning in calendar year 2010 and continuing in calendar year 2011, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an~~

~~overall NO_x annual emission rate of no more than 0.14 lb/million Btu.~~

- ~~iii) Beginning in calendar year 2012 and continuing in each calendar year thereafter, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall NO_x annual emission rate of no more than 0.11 lb/million Btu.~~

~~C) SO₂ Emission Standards~~

- ~~i) Beginning in calendar year 2010 and continuing in each calendar year through 2013, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall SO₂ annual emission rate of 0.50 lb/million Btu.~~

- ~~ii) In calendar year 2014, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall SO₂ annual emission rate of 0.43 lb/million Btu.~~

- ~~iii) Beginning in calendar year 2015 and continuing in calendar year 2016, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall SO₂ annual emission rate of 0.25 lb/million Btu.~~

- ~~iv) Beginning in calendar year 2017 and continuing in each calendar year thereafter, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall SO₂ annual emission rate of 0.23 lb /million Btu.~~

- 6) Compliance with the NO_x and SO₂ emission standards must be demonstrated in accordance with Sections 225.310, 225.410, and 225.510. The owner or operator of EGUs must complete the demonstration of compliance before March 1 of the following year for annual standards and before November 1 for seasonal standards, by which date a compliance report must be submitted to the Agency.

gf) Requirements for NO_x and SO₂ Allowances.

- 1) The owner or operator of EGUs in an MPS Group must not sell or trade to any person or otherwise exchange with or give to any person NO_x allowances allocated to the EGUs in the MPS Group for vintage years 2012 and beyond that would otherwise be available for sale, trade, or

exchange as a result of actions taken to comply with the standards in subsection (e) of this Section. Such allowances that are not retired for compliance must be surrendered to the Agency on an annual basis, beginning in calendar year 2013. This provision does not apply to the use, sale, exchange, gift, or trade of allowances among the EGUs in an MPS Group.

- 2) The owners or operators of EGUs in an MPS Group must not sell or trade to any person or otherwise exchange with or give to any person SO₂ allowances allocated to the EGUs in the MPS Group for vintage years 2013 and beyond that would otherwise be available for sale or trade as a result of actions taken to comply with the standards in subsection (e) of this Section. Such allowances that are not retired for compliance, or otherwise surrendered pursuant to a consent decree to which the State of Illinois is a party, must be surrendered to the Agency on an annual basis, beginning in calendar year 2014. This provision does not apply to the use, sale, exchange, gift, or trade of allowances among the EGUs in an MPS Group.
- 3) The provisions of this subsection (f) do not restrict or inhibit the sale or trading of allowances that become available from one or more EGUs in a MPS Group as a result of holding allowances that represent over-compliance with the NO_x or SO₂ standard in subsection (e) of this Section, once such a standard becomes effective, whether such over-compliance results from control equipment, fuel changes, changes in the method of operation, unit shut downs, or other reasons.
- 4) For purposes of this subsection (f), NO_x and SO₂ allowances mean allowances necessary for compliance with Sections 225.310, 225.410, or 225.510, 40 CFR 72, or Subparts AA and AAAA of 40 CFR 96, or any future federal NO_x or SO₂ emissions trading programs that modify or replace these programs. This Section does not prohibit the owner or operator of EGUs in an MPS Group from purchasing or otherwise obtaining allowances from other sources as allowed by law for purposes of complying with federal or state requirements, except as specifically set forth in this Section.
- 5) By March 1, 2010, and continuing each year thereafter, the owner or operator of EGUs in an MPS Group must submit a report to the Agency that demonstrates compliance with the requirements of this subsection (f) for the previous calendar year, and which includes identification of any allowances that have been surrendered to the USEPA or to the Agency and any allowances that were sold, gifted, used, exchanged, or traded because they became available due to over-compliance. All allowances that are required to be surrendered must be surrendered by August 31, unless USEPA has not yet deducted the allowances from the previous year. A

final report must be submitted to the Agency by August 31 of each year, verifying that the actions described in the initial report have taken place or, if such actions have not taken place, an explanation of all changes that have occurred and the reasons for such changes. If USEPA has not deducted the allowances from the previous year by August 31, the final report will be due, and all allowances required to be surrendered must be surrendered, within 30 days after such deduction occurs.

- ~~g) Notwithstanding 35 Ill. Adm. Code 201.146(hhh), until an EGU has complied with the applicable emission standards of subsections (d) and (e) of this Section for 12 months, the owner or operator of the EGU must obtain a construction permit for any new or modified air pollution control equipment that it proposes to construct for control of emissions of mercury, NO_x, or SO₂.~~

(Source: Amended at __ Ill. Reg. ____, effective _____)

Attachment G

Email from Renee Cipriano, Schiff Hardin, to Dana Vetterhoffer, IEPA, and Gina Roccaforte, IEPA (May 17, 2017, 11:17am CST)

Roccaforte, Gina

From: Cipriano, Renee <RCipriano@schiffhardin.com>
Sent: Wednesday, May 17, 2017 11:17 AM
To: Roccaforte, Gina; Vetterhoffer, Dana
Subject: [External] Draft Changes to MPS Rule Revision Language
Attachments: 19551379_2.DOCX

Hi Gina/Hi Dana. This attachment provides you with our suggested changes to the draft MPS Rule Revision Language. We thank you for the opportunity to review and share our position. I would like the chance to explain the changes to both of you, and Julie, if she would like to participate. Since time is of the essence, I will make myself available today or tomorrow. For today, I have a call starting at 11:30 am and it should last for about 1 hour. I also have a call at 3 pm for about ½ hour. Otherwise, I will make myself available at your convenience (I am on cell all day today at 773-547-1111). Tomorrow, just name the time and I will be free. Thank you both so much for all of your work. Best, Renee

This message and any attachments may contain confidential information protected by the attorney-client or other privilege. If you believe that it has been sent to you in error, please reply to the sender that you received the message in error. Then delete it. Thank you.



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TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE B: AIR POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER c: EMISSION STANDARDS AND LIMITATIONS FOR STATIONARY SOURCES

PART 225
CONTROL OF EMISSIONS FROM LARGE COMBUSTION SOURCES

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- 225.APPENDIX A Specified EGUs for Purposes of the CPS Midwest Generation's Coal-Fired Boilers as of July 1, 2006
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 - 225.EXHIBIT A Specifications and Test Procedures
 - 225. EXHIBIT B Quality Assurance and Quality Control Procedures
 - 225. EXHIBIT C Conversion Procedures
 - 225 EXHIBIT D Quality Assurance and Operating Procedures for Sorbent Trap Monitoring Systems

AUTHORITY: Implementing and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/27].

SOURCE: Adopted in R06-25 at 31 Ill. Reg. 129, effective December 21, 2006; amended in R06-26 at 31 Ill. Reg. 12864, effective August 31, 2007; amended in R09-10 at 33 Ill. Reg. 10427, effective June 26, 2009; amended in R15-21 at 39 Ill. Reg. 16225, effective December 7, 2015; amended in R17-__ at __ Ill. Reg. _____, effective _____.

SUBPART B: CONTROL OF MERCURY EMISSIONS FROM COAL-FIRED ELECTRIC GENERATING UNITS

Section 225.233 Multi-Pollutant Standards (MPS)

a) General.

- 1) As an alternative to compliance with the emissions standards of Section 225.230(a), the owner of eligible EGUs may elect for those EGUs to demonstrate compliance pursuant to this Section, which establishes control requirements and standards for emissions of NO_x and SO₂, as well as for emissions of mercury.
- 2) For the purpose of this Section, the following requirements apply:
 - A) An eligible EGU is an EGU that is located in Illinois and which commenced commercial operation on or before December 31, 2004; and
 - B) Ownership of an eligible EGU is determined based on direct ownership, by the holding of a majority interest in a company that owns the EGU or EGUs, or by the common ownership of the company that owns the EGU, whether through a parent-subsidiary relationship, as a sister corporation, or as an affiliated corporation with the same parent corporation, provided that the owner has the right or authority to submit a CAAPP application on behalf of the EGU.
- 3) The owner of one or more EGUs electing to demonstrate compliance with this Subpart B pursuant to this Section must submit an application for a CAAPP permit modification to the Agency, as provided in Section 225.220, that includes the information specified in subsection (b) of this Section and which clearly states the owner's election to demonstrate compliance pursuant to this Section 225.233.
 - A) If the owner of one or more EGUs elects to demonstrate compliance with this Subpart pursuant to this Section, then all

EGUs it owns in Illinois as of July 1, 2006, as defined in subsection (a)(2)(B) of this Section, must be thereafter subject to the standards and control requirements of this Section, except as provided in subsection (a)(3)(B). Such EGUs must be referred to as a Multi-Pollutant Standard (MPS) Group.

- B) Notwithstanding the foregoing, the owner may exclude from an MPS Group any EGU scheduled for permanent shutdown that the owner so designates in its CAAPP application required to be submitted pursuant to subsection (a)(3) of this Section, with compliance for such units to be achieved by means of Section 225.235.

4) Notwithstanding any contrary provision in this subsection (a), on and after January 1, 2018:

A) The following EGUs shall be merged into a new MPS Group: Baldwin Units 1, 2, and 3; Coffeen Units 1 and 2; Duck Creek Unit 1; E.D. Edwards Units 2 and 3; Havana Unit 69; Hennepin Units 1 and 2; Joppa Units 1, 2, 3, 4, 5, and 6; and Newton Unit 1. If one or more of the above EGUs are transferred to a different owner, such EGU or EGUs may will become a separate MPS Group on and after the date of transfer as provided in subsection (f) of this Section. For purposes of this Section, "transfer" means sale, conveyance, transfer, or other change in EGU ownership of an EGU; and

B) No other EGUs except for those listed in subsection (a)(4)(A) of this Section are subject to the requirements of this Section.

- 54) When an EGU is subject to the requirements of this Section, the requirements apply to all owners or operators of the EGU, as applicable.

b) Notice of Intent.

The owner of one or more EGUs that intends to comply with this Subpart B by means of this Section must notify the Agency of its intention by December 31, 2007. The following information must accompany the notification:

- 1) The identification of each EGU that will be complying with this Subpart B by means of the multi-pollutant standards contained in this Section, with evidence that the owner has identified all EGUs that it owned in Illinois as of July 1, 2006 and which commenced commercial operation on or before December 31, 2004;

- 2) If an EGU identified in subsection (b)(1) of this Section is also owned or operated by a person different than the owner submitting the notice of intent, a demonstration that the submitter has the right to commit the EGU or authorization from the responsible official for the EGU accepting the application;
 - 3) The Base Emission Rates for the EGUs, with copies of supporting data and calculations;
 - 4) A summary of the current control devices installed and operating on each EGU and identification of the additional control devices that will likely be needed for the each EGU to comply with emission control requirements of this Section, including identification of each EGU in the MPS group that will be addressed by subsection (c)(1)(B) of this Section, with information showing that the eligibility criteria for this subsection (b) are satisfied; and
 - 5) Identification of each EGU that is scheduled for permanent shut down, as provided by Section 225.235, which will not be part of the MPS Group and which will not be demonstrating compliance with this Subpart B pursuant to this Section.
- c) Control Technology Requirements for Emissions of Mercury.
- 1) Requirements for EGUs in an MPS Group.
 - A) For each EGU in an MPS Group other than an EGU that is addressed by subsection (c)(1)(B) of this Section for the period beginning July 1, 2009 (or December 31, 2009 for an EGU for which an SO₂ scrubber or fabric filter is being installed to be in operation by December 31, 2009), and ending on December 31, 2014 (or such earlier date that the EGU is subject to the mercury emission standard in subsection (d)(1) of this Section), the owner or operator of the EGU must install, to the extent not already installed, and properly operate and maintain one of the following emission control devices:
 - i) A Halogenated Activated Carbon Injection System, complying with the sorbent injection requirements of subsection (c)(2) of this Section, except as may be otherwise provided by subsection (c)(4) of this Section, and followed by a Cold-Side Electrostatic Precipitator or Fabric Filter; or
 - ii) If the boiler fires bituminous coal, a Selective Catalytic Reduction (SCR) System and an SO₂ Scrubber.

- B) An owner of an EGU in an MPS Group has two options under this subsection (c). For an MPS Group that contains EGUs smaller than 90 gross MW in capacity, the owner may designate any such EGUs to be not subject to subsection (c)(1)(A) of this Section. Or, for an MPS Group that contains EGUs with gross MW capacity of less than 115 MW, the owner may designate any such EGUs to be not subject to subsection (c)(1)(A) of this Section, provided that the aggregate gross MW capacity of the designated EGUs does not exceed 4% of the total gross MW capacity of the MPS Group. For any EGU subject to one of these two options, unless the EGU is subject to the emission standards in subsection (d)(2) of this Section, beginning on January 1, 2013, and continuing until such date that the owner or operator of the EGU commits to comply with the mercury emission standard in subsection (d)(2) of this Section, the owner or operator of the EGU must install and properly operate and maintain a Halogenated Activated Carbon Injection System that complies with the sorbent injection requirements of subsection (c)(2) of this Section, except as may be otherwise provided by subsection (c)(4) of this Section, and followed by either a Cold-Side Electrostatic Precipitator or Fabric Filter. The use of a properly installed, operated, and maintained Halogenated Activated Carbon Injection System that meets the sorbent injection requirements of subsection (c)(2) of this Section is defined as the "principal control technique."
- 2) For each EGU for which injection of halogenated activated carbon is required by subsection (c)(1) of this Section, the owner or operator of the EGU must inject halogenated activated carbon in an optimum manner, which, except as provided in subsection (c)(4) of this Section, is defined as all of the following:
- A) The use of an injection system designed for effective absorption of mercury, considering the configuration of the EGU and its ductwork;
- B) The injection of halogenated activated carbon manufactured by Alstom, Norit, or Sorbent Technologies, Calgon Carbon's FLUEPAC CF Plus, or Calgon Carbon's FLUEPAC MC Plus, or the injection of any other halogenated activated carbon or sorbent that the owner or operator of the EGU has demonstrated to have similar or better effectiveness for control of mercury emissions; and
- C) The injection of sorbent at the following minimum rates, as applicable:

- i) For an EGU firing subbituminous coal, 5.0 lbs per million actual cubic feet or, for any cyclone-fired EGU that will install a scrubber and baghouse by December 31, 2012, and which already meets an emission rate of 0.020 lbs mercury/GWh gross electrical output or at least 75 percent reduction of input mercury, 2.5 lbs per million actual cubic feet;
 - ii) For an EGU firing bituminous coal, 10.0 lbs per million actual cubic feet for any cyclone-fired EGU that will install a scrubber and baghouse by December 31, 2012, and which already meets an emission rate of 0.020 lb mercury/GWh gross electrical output or at least 75 percent reduction of input mercury, 5.0 lbs per million actual cubic feet;
 - iii) For an EGU firing a blend of subbituminous and bituminous coal, a rate that is the weighted average of the above rates, based on the blend of coal being fired; or
 - iv) A rate or rates set lower by the Agency, in writing, than the rate specified in any of subsections (c)(2)(C)(i), (c)(2)(C)(ii), or (c)(2)(C)(iii) of this Section on a unit-specific basis, provided that the owner or operator of the EGU has demonstrated that such rate or rates are needed so that carbon injection will not increase particulate matter emissions or opacity so as to threaten noncompliance with applicable requirements for particulate matter or opacity.
- D) For the purposes of subsection (c)(2)(C) of this Section, the flue gas flow shall be the gas flow rate in the stack for all units except for those equipped with activated carbon injection prior to a hot-side electrostatic precipitator; for units equipped with activated carbon injection prior to a hot-side electrostatic precipitator, the flue gas flow rate shall be the gas flow rate at the inlet to the hot-side electrostatic precipitator, which shall be determined as the stack flow rate adjusted through the use of Charles' Law for the differences in gas temperatures in the stack and at the inlet to the electrostatic precipitator ($V_{esp} = V_{stack} \times T_{esp}/T_{stack}$, where V = gas flow rate in acf and T = gas temperature in Kelvin or Rankine
- 3) The owner or operator of an EGU that seeks to operate an EGU with an activated carbon injection rate or rates that are set on a unit-specific basis pursuant to subsection (c)(2)(C)(iv) of this Section must submit an application to the Agency proposing such rate or rates, and must meet the requirements of subsections (c)(3)(A) and (c)(3)(B) of this Section, subject to the limitations of subsections (c)(3)(C) and (c)(3)(D) of this Section:

- A) The application must be submitted as an application for a new or revised federally enforceable operating permit for the EGU, and it must include a summary of relevant mercury emission data for the EGU, the unit-specific injection rate or rates that are proposed, and detailed information to support the proposed injection rate or rates; and
 - B) This application must be submitted no later than the date that activated carbon must first be injected. For example, the owner or operator of an EGU that must inject activated carbon pursuant to subsection (c)(1)(A) of this subsection must apply for unit-specific injection rate or rates by July 1, 2009. Thereafter, the owner or operator of the EGU may supplement its application; and
 - C) Any decision of the Agency denying a permit or granting a permit with conditions that set a lower injection rate or rates may be appealed to the Board pursuant to Section 39 of the Act; and
 - D) The owner or operator of an EGU may operate at the injection rate or rates proposed in its application until a final decision is made on the application, including a final decision on any appeal to the Board.
- 4) During any evaluation of the effectiveness of a listed sorbent, an alternative sorbent, or other technique to control mercury emissions, the owner or operator of an EGU need not comply with the requirements of subsection (c)(2) of this Section for any system needed to carry out the evaluation, as further provided as follows:
- A) The owner or operator of the EGU must conduct the evaluation in accordance with a formal evaluation program submitted to the Agency at least 30 days prior to commencement of the evaluation;
 - B) The duration and scope of the evaluation may not exceed the duration and scope reasonably needed to complete the desired evaluation of the alternative control technique, as initially addressed by the owner or operator in a support document submitted with the evaluation program;
 - C) The owner or operator of the EGU must submit a report to the Agency no later than 30 days after the conclusion of the evaluation that describes the evaluation conducted and which provides the results of the evaluation; and
 - D) If the evaluation of the alternative control technique shows less effective control of mercury emissions from the EGU than was

achieved with the principal control technique, the owner or operator of the EGU must resume use of the principal control technique. If the evaluation of the alternative control technique shows comparable effectiveness to the principal control technique, the owner or operator of the EGU may either continue to use the alternative control technique in a manner that is at least as effective as the principal control technique, or it may resume use of the principal control technique. If the evaluation of the alternative control technique shows more effective control of mercury emissions than the control technique, the owner or operator of the EGU must continue to use the alternative control technique in a manner that is more effective than the principal control technique, so long as it continues to be subject to this subsection (c).

- 5) In addition to complying with the applicable recordkeeping and monitoring requirements in Sections 225.240 through 225.290, the owner or operator of an EGU that elects to comply with this Subpart B by means of this Section must also comply with the following additional requirements:
- A) For the first 36 months that injection of sorbent is required, it must maintain records of the usage of sorbent, the fluegas flow rate from the EGU (and, if the unit is equipped with activated carbon injection prior to a hot-side electrostatic precipitator, flue gas temperature at the inlet of the hot-side electrostatic precipitator and in the stack), and the sorbent feed rate, in pounds per million actual cubic feet of flue, on a weekly average;
 - B) After the first 36 months that injection of sorbent is required, it must monitor activated sorbent feed rate to the EGU, gas flow rate in the stack, and, if the unit is equipped with activated carbon injection prior to a hot-side electrostatic precipitator, flue gas temperature at the inlet of the hot-side electrostatic precipitator and in the stack. It must automatically record this data and the sorbent carbon feed rate, in pounds per million actual cubic feet of flue gas, on an hourly average; and
 - C) If a blend of bituminous and subbituminous coal is fired in the EGU, it must keep records of the amount of each type of coal burned and the required injection rate for injection of activated carbon, on a weekly basis.
- 6) Until June 30, 2012, as an alternative to the CEMS or excepted monitoring system (sorbent trap system) monitoring, recordkeeping, and reporting requirements in Sections 225.240 through 225.290, the owner or operator of an EGU may elect to comply with the emissions testing, monitoring,

recordkeeping, and reporting requirements in Section 225.239(c), (d), (e), (f)(1) and (2), (h)(2), (i)(3) and (4), and (j)(1).

- 7) In addition to complying with the applicable reporting requirements in Sections 225.240 through 225.290, the owner or operator of an EGU that elects to comply with this Subpart B by means of this Section must also submit quarterly reports for the recordkeeping and monitoring conducted pursuant to subsection (c)(5) of this Section.

d) Emission Standards for Mercury.

- 1) For each EGU in an MPS Group that is not addressed by subsection (c)(1)(B) of this Section, beginning January 1, 2015 (or such earlier date when the owner or operator of the EGU notifies the Agency that it will comply with these standards) and continuing thereafter, the owner or operator of the EGU must comply with one of the following standards on a rolling 12-month basis:
 - A) An emission standard of 0.0080 lb mercury/GWh gross electrical output; or
 - B) A minimum 90-percent reduction of input mercury.
- 2) For each EGU in an MPS Group that has been addressed under subsection (c)(1)(B) of this Section, beginning on the date when the owner or operator of the EGU notifies the Agency that it will comply with these standards and continuing thereafter, the owner or operator of the EGU must comply with one of the following standards on a rolling 12-month basis:
 - A) An emission standard of 0.0080 lb mercury/GWh gross electrical output; or
 - B) A minimum 90-percent reduction of input mercury.
- 3) Compliance with the mercury emission standard or reduction requirement of this subsection (d) must be calculated in accordance with Section 225.230(a) or (d), or Section 225.232 until December 31, 2013.
- 4) Until June 30, 2012, as an alternative to demonstrating compliance with the emissions standards in this subsection (d), the owner or operator of an EGU may elect to comply with the emissions testing requirements in Section 225.239(a)(4), (b), (c), (d), (e), (f), (g), (h), (i), and (j) of this Subpart.

e) Emission Standards for NO_x and SO₂.

- 1) NO_x Emission Standards.
 - A) Beginning in calendar year 2012 and continuing through calendar year 2017 in each calendar thereafter, for the EGUs in each MPS Group, the owner and operator of the EGUs must comply with an overall NO_x annual emission rate of no more than 0.11 lb/million Btu or an emission rate equivalent to 52 percent of the Base Annual Rate of NO_x emissions, whichever is more stringent.
 - B) Beginning in the 2012 ozone season and continuing through the 2017 and continuing in each ozone season thereafter, for the EGUs in each MPS Group, the owner and operator of the EGUs must comply with an overall NO_x seasonal emission rate of no more than 0.11 lb/million Btu or an emission rate equivalent to 80 percent of the Base Seasonal Rate of NO_x emissions, whichever is more stringent.
 - C) Except as otherwise provided in subsection (f) of this Section, beginning in calendar year 2018 and continuing in each calendar year thereafter, the owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined annual NO_x emissions in excess of 25,000 tons from all EGUs.
 - D) Except as otherwise provided in subsection (f) of this Section, beginning in the year 2018 and continuing in each year thereafter, from May 1 to September 30, the owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined NO_x emissions in excess of 11,500 tons from all EGUs.
 - E) On and after January 1, 2018, the owner and operator of Baldwin Units 1 and 2, and 3; Coffeen Units 1 and 2; Duck Creek Unit 1; E.D. Edwards Unit 3; and Havana Unit 69 must:
 - i) Operate existing SCR control systems on the EGUs in accordance with good operating practices at all times the EGUs are operating; and
 - ii) From May 1 to September 30, comply with a combined NO_x average emission rate of no more than 0.10 lb/mmBtu.
- 2) SO₂ Emission Standards.

- A) Beginning in calendar year 2013 and continuing in calendar year 2014, for the EGUs in each MPS Group, the owner and operator of the EGUs must comply with an overall SO₂ annual emission rate of 0.33 lb/million Btu or a rate equivalent to 44 percent of the Base Rate of SO₂ emissions, whichever is more stringent.
- B) Beginning in calendar year 2015 and continuing ~~through calendar year 2017 in each calendar year thereafter~~, for the EGUs in each MPS Grouping, the owner and operator of the EGUs must comply with an overall annual emission rate for SO₂ of 0.25 lbs/million Btu or a rate equivalent to 35 percent of the Base Rate of SO₂ emissions, whichever is more stringent.
- C) Except as otherwise provided in subsection (f) of this Section, beginning in calendar year 2018 and continuing in each calendar year thereafter, the owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined annual SO₂ emissions in excess of 55,000 tons from all EGUs.
- D) Except as otherwise provided in subsection (f) of this Section, beginning in calendar year 2018 and continuing in each calendar year thereafter, the owner and operator of Joppa Units 1, 2, 3, 4, 5, and 6 must not cause or allow to be discharged into the atmosphere combined annual SO₂ emissions in excess of 19,860 tons from such EGUs.
- E) ~~Beginning in calendar year 2018 and continuing in each calendar year thereafter, the owner and operator of each EGU in an MPS Group must comply with an annual SO₂ emission rate of no more than 0.55 lb/mmBtu for each EGU.~~

D) Shutdown or Transfer of EGU or EGUs in an MPS Group.

- D) ~~If one or more EGUs in an MPS Group permanently shut down, such EGU or EGUs are no longer part of an MPS Group and no longer subject to the requirements of this Section. For the remaining EGUs in an MPS Group, the combined emissions limitations set forth in subsections (e)(1) and (e)(2) of this Section, as applicable, must be adjusted by subtracting from those limitations the applicable unit allocation amounts set forth in Columns A, B, and C in subsection (f)(3) of this Section that are attributable to the shutdown EGU or EGUs. The owner and operator of the EGUs in the MPS Group must comply with the adjusted combined emissions limitations beginning in the calendar year in which the pertinent regional transmission organization approves the removal of the shutdown~~

~~EGU or EGUs from the electrical grid. The owner and operator must notify the Agency's Bureau of Air Compliance Section, in writing within seven days of the date of such approval. The notification must include the following information:~~

- ~~A) Name and address of the owner and operator;~~
 - ~~B) List of the EGU or EGUs permanently shut down; and~~
 - ~~C) For the remaining EGUs in the MPS Group, calculations pursuant to this subsection (f)(1) demonstrating the adjusted combined annual NO_x emissions limitation, the adjusted combined NO_x emissions limitation from May 1 to September 30, and the adjusted combined annual SO₂ emissions limitation that are applicable to the MPS Group;~~
- 2) ~~If one or more EGUs in an MPS Group are transferred to a different owner:~~
- ~~A) For the MPS Group from which one or more EGUs is transferred: The combined emissions limitations for the MPS Group set forth in subsections (e)(1) and (e)(2) of this Section, as applicable, must be adjusted by subtracting from those limitations the applicable unit allocation amounts set forth in Columns A, B, and C in subsection (f)(3) of this Section that are attributable to the transferred EGU or EGUs. The owner and operator of the MPS Group must comply with the adjusted emissions limitations beginning in the calendar year in which the transfer takes place.~~
 - ~~B) For a new MPS Group consisting of the acquired EGU or EGUs:
 - ~~i) The owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined annual NO_x emissions in excess of the applicable annual NO_x limitation from all EGUs. The applicable annual NO_x limitation shall be the sum of the unit allocation amounts attributable to all EGUs in the MPS Group set forth in Column A of subsection (f)(4) of this Section.~~
 - ~~ii) From May 1 to September 30, the owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined NO_x emissions in excess of the applicable seasonal NO_x limitation from all EGUs. The applicable seasonal NO_x limitation shall be the sum of the unit allocation amounts attributable to all EGUs~~~~

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~~in the MPS Group set forth in Column B of subsection (f)(4) of this Section.~~

~~iii) The owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined annual SO₂ emissions in excess of the applicable annual SO₂ limitation from all EGUs. The applicable annual SO₂ limitation shall be the sum of the unit allocation amounts attributable to all EGUs in the MPS Group set forth in Column C of subsection (f)(4) of this Section.~~

~~C) If any of the EGUs specified in subsection (e)(1)(E) of this Section are transferred to a different owner, the new owner and operator of the EGU or EGUs must comply with the provisions of subsections (e)(1)(E)(i) and (e)(1)(E)(ii) of this Section on and after the date of transfer. If the transfer takes place between May 1 and September 30, the new owner and operator must also demonstrate compliance with the provisions of subsection (e)(1)(E)(ii) of this Section for the entire May 1 through September 30 compliance period.~~

~~D) The owner and operator of the EGU or EGUs as of the last day of the applicable compliance period must demonstrate compliance with the emission standards of this Section for the entire applicable compliance period.~~

~~3) Unit Allocation Amounts in the Event of Transfer or Shutdown of EGUs:~~

	<u>Column A:</u> <u>Unit NO_x</u> <u>Allocation</u> <u>Amount</u> <u>(TPY) in the</u> <u>Event of</u> <u>Transfer or</u> <u>Shutdown</u>	<u>Column B:</u> <u>Unit NO_x</u> <u>Allocation</u> <u>Amount (May</u> <u>1 - Sept 30</u> <u>Tons) in the</u> <u>Event of</u> <u>Transfer or</u> <u>Shutdown</u>	<u>Column C:</u> <u>Unit SO₂</u> <u>Allocation</u> <u>Amount</u> <u>(TPY) in the</u> <u>Event of</u> <u>Transfer or</u> <u>Shutdown</u>
A) Baldwin 1	2,300	1,048	5,800
B) Baldwin 2	2,200	974	4,700
C) Baldwin 3	2,300	1,041	5,000
D) Havana 9	2,000	898	4,300

E)	Hennepin-1	300	130	700
F)	Hennepin-2	900	462	2,000
G)	Coffeen-1	1,200	534	2,600
H)	Coffeen-2	2,000	902	4,400
I)	Duck-Creek-1	1,800	818	4,000
J)	E.D. Edwards-2	1,200	540	2,600
K)	E.D. Edwards-3	1,700	747	3,600
L)	Joppa-1	900	374	1,800
M)	Joppa-2	900	374	1,800
N)	Joppa-3	900	374	1,800
O)	Joppa-4	900	374	1,800
P)	Joppa-5	900	374	1,800
Q)	Joppa-6	900	374	1,800
R)	Newton-1	2,700	1,212	5,800

4) Unit Allocation Amounts for EGUs in a New MPS Group:

	<u>Column-A:</u> <u>Unit-NO,</u> <u>Allocation</u> <u>Amount</u> <u>(TPY) for</u> <u>New-MPS</u> <u>Group-in-the</u> <u>Event-of</u> <u>Transfer</u>	<u>Column-B:</u> <u>Unit-NO,</u> <u>Allocation</u> <u>Amount (May</u> <u>1-Sept-30</u> <u>Tons) for New</u> <u>MPS-Group-in</u> <u>the Event-of</u> <u>Transfer</u>	<u>Column-C:</u> <u>Unit-SO₂</u> <u>Allocation</u> <u>Amount</u> <u>(TPY) for</u> <u>New-MPS</u> <u>Group-in-the</u> <u>Event-of</u> <u>Transfer</u>	
A)	Baldwin-1	2,100	1,048	2,100
B)	Baldwin-2	1,800	974	1,800
C)	Baldwin-3	2,200	1,041	2,300

D)	Havana-9	1,400	898	1,400
E)	Hennepin-1	200	130	600
F)	Hennepin-2	800	462	1,900
G)	Coffeen-1	900	534	900
H)	Coffeen-2	1,800	902	4,300
I)	Duck-Creek-1	1,100	818	2,900
J)	E.D. Edwards-2	1,100	540	2,500
K)	E.D. Edwards-3	1,600	747	3,500
L)	Joppa-1	800	374	1,700
M)	Joppa-2	800	374	1,700
N)	Joppa-3	800	374	1,700
O)	Joppa-4	800	374	1,700
P)	Joppa-5	800	374	1,700
Q)	Joppa-6	800	374	1,700
R)	Newton-1	2,600	1,212	5,700

51) If one or more EGUs in an MPS Group are transferred to a different owner:

A) The transferring owner and acquiring owner must jointly notify the Agency's Bureau of Air, Compliance Section, in writing within seven days of the date of transfer. The notification must include the following information:

- i) Name and address of the transferring and acquiring owners and operators;**
- ii) List of the EGUs transferred;**
- iii) For the remaining EGUs in the MPS Group, calculations pursuant to subsection (f)(2)(A) of this Section**

~~demonstrating the adjusted combined annual NO_x emissions limitation, the adjusted combined NO_x emissions limitation from May 1 to September 30, and the adjusted combined annual SO₂ emissions limitation that are applicable to the MPS Group;~~

~~iv) Name and address of the new owner and operator; and~~

~~viii) Date of transfer; and~~

~~iv.) Identification of the means by which the EGUs listed in subsection (a)(4)(A) of this Section intend to comply with the applicable combined NO_x and SO₂ limitations set forth in subsections (c)(1)(C), (c)(1)(D), (c)(2)(C), and (c)(2)(D) of this Section after transfer.~~

~~B) The transferring owner and acquiring owner may jointly petition the Board to create a separate MPS Group containing the transferred EGU or EGUs in accordance with the procedures for adjusted standards specified in Section 28.1 of the Act and 35 Ill Adm. Code 106.Subpart G. The Board may grant such petition if:~~

~~i) the transferring owner and acquiring owner demonstrate that the emissions of the transferred EGU or EGUs of the new MPS Group and EGUs remaining in the MPS Group identified in subsection (a)(4)(A) of this Section combined are not greater than the applicable combined NO_x and SO₂ limitations set forth in subsections (c)(1)(C), (c)(1)(D), (c)(2)(C) and (c)(2)(D); and~~

~~ii) the acquiring owner states it will comply with all EGU specific limitations of this Section applicable to any and all EGUs transferred.~~

~~C) Nothing in this subsection shall prevent the Board from promulgating revisions to this Section pursuant to its authority specified in Section 27 of the Act.~~

~~B) The acquiring owner must notify the Agency's Bureau of Air, Compliance Section, in writing within seven days of the date of transfer. The notification must include the following information:~~

~~i) Name and address of the acquiring owner and operator;~~

~~ii) Name and address of the transferring owner and operator;~~

~~iii) List of the EGUs acquired;~~

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~~iv) Calculations pursuant to subsection (f)(2)(B) of this Section demonstrating the combined annual NO_x emissions limitation, the combined NO_x emissions limitation from May 1 to September 30, and the combined annual SO₂ emissions limitation that are applicable to the acquiring owner and operator's MPS Group; and~~

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~~v) Date of transfer.~~

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3) Ameren MPS Group Multi-Pollutant Standard

A) Notwithstanding the provisions of subsections (e)(1) and (2) of this Section, this subsection (e)(3) applies to the Ameren MPS Group as described in the notice of intent submitted by Ameren Energy Resources in accordance with subsection (b) of this Section.

B) NO_x Emission Standards:

- i) Beginning in the 2010 ozone season and continuing in each ozone season thereafter, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall NO_x seasonal emission rate of no more than 0.11 lb/million Btu.
- ii) Beginning in calendar year 2010 and continuing in calendar year 2011, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall NO_x annual emission rate of no more than 0.14 lb/million Btu.
- iii) Beginning in calendar year 2012 and continuing in each calendar year thereafter, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall NO_x annual emission rate of no more than 0.11 lb/million Btu.

C) SO₂ Emission Standards

- i) Beginning in calendar year 2010 and continuing in each calendar year through 2013, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall SO₂ annual emission rate of 0.50 lb/million Btu.
- ii) In calendar year 2014, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply

with an overall SO₂ annual emission rate of 0.43 lb/million Btu.

iii) Beginning in calendar year 2015 and continuing in calendar year 2016, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall SO₂ annual emission rate of 0.25 lb/million Btu.

iv) Beginning in calendar year 2017 and continuing in each calendar year thereafter, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall SO₂ annual emission rate of 0.23 lb/million Btu.

[6) Compliance with the NO_x and SO₂ emission standards must be demonstrated in accordance with Sections 225.310, 225.410, and 225.510. The owner or operator of EGUs must complete the demonstration of compliance before March 1 of the following year for annual standards and before November 1 for seasonal standards, by which date a compliance report must be submitted to the Agency.]

gf) Requirements for NO_x and SO₂ Allowances.

- 1) The owner or operator of EGUs in an MPS Group must not sell or trade to any person or otherwise exchange with or give to any person NO_x allowances allocated to the EGUs in the MPS Group for vintage years 2012 and beyond that would otherwise be available for sale, trade, or exchange as a result of actions taken to comply with the standards in subsection (c) of this Section. Such allowances that are not retired for compliance must be surrendered to the Agency on an annual basis, beginning in calendar year 2013. This provision does not apply to the use, sale, exchange, gift, or trade of allowances among the EGUs in an MPS Group.
- 2) The owners or operators of EGUs in an MPS Group must not sell or trade to any person or otherwise exchange with or give to any person SO₂ allowances allocated to the EGUs in the MPS Group for vintage years 2013 and beyond that would otherwise be available for sale or trade as a result of actions taken to comply with the standards in subsection (c) of this Section. Such allowances that are not retired for compliance, or otherwise surrendered pursuant to a consent decree to which the State of Illinois is a party, must be surrendered to the Agency on an annual basis, beginning in calendar year 2014. This provision does not apply to the use, sale, exchange, gift, or trade of allowances among the EGUs in an MPS Group.

- 3) The provisions of this subsection (fg) do not restrict or inhibit the sale or trading of allowances that become available from one or more EGUs in a MPS Group as a result of holding allowances that represent over-compliance with the NO_x or SO₂ standard in subsection (c) of this Section, once such a standard becomes effective, whether such over-compliance results from control equipment, fuel changes, changes in the method of operation, unit shut downs, or other reasons.
- 4) For purposes of this subsection (gf), NO_x and SO₂ allowances mean allowances necessary for compliance with Sections 225.310, 225.410, or 225.510, 40 CFR 72, or Subparts AA and AAAA of 40 CFR 96, or any future federal NO_x or SO₂ emissions trading programs that modify or replace these programs. This Section does not prohibit the owner or operator of EGUs in an MPS Group from purchasing or otherwise obtaining allowances from other sources as allowed by law for purposes of complying with federal or state requirements, except as specifically set forth in this Section.
- 5) By March 1, 2010, and continuing each year thereafter, the owner or operator of EGUs in an MPS Group must submit a report to the Agency that demonstrates compliance with the requirements of this subsection (gf) for the previous calendar year, and which includes identification of any allowances that have been surrendered to the USEPA or to the Agency and any allowances that were sold, gifted, used, exchanged, or traded because they became available due to over-compliance. All allowances that are required to be surrendered must be surrendered by August 31, unless USEPA has not yet deducted the allowances from the previous year. A final report must be submitted to the Agency by August 31 of each year, verifying that the actions described in the initial report have taken place or, if such actions have not taken place, an explanation of all changes that have occurred and the reasons for such changes. If USEPA has not deducted the allowances from the previous year by August 31, the final report will be due, and all allowances required to be surrendered must be surrendered, within 30 days after such deduction occurs.

g) ~~Notwithstanding 35 Ill. Adm. Code 201.146(hhh), until an EGU has complied with the applicable emission standards of subsections (d) and (e) of this Section for 12 months, the owner or operator of the EGU must obtain a construction permit for any new or modified air pollution control equipment that it proposes to construct for control of emissions of mercury, NO_x, or SO₂.~~

(Source: Amended at __ Ill. Reg. ____, effective _____)

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Attachment H

Email from Renee Cipriano, Schiff Hardin, to Dana Vetterhoffer, IEPA, and Gina Roccaforte, IEPA (May 24, 2017 at 5:02pm)

Roccaforte, Gina

From: Cipriano, Renee <RCipriano@schiffhardin.com>
Sent: Wednesday, May 24, 2017 5:02 PM
To: Roccaforte, Gina; Vetterhoffer, Dana
Subject: [External] MPS Revision--Requested Information
Attachments: Proposal to Modify 225 233 f 3.pdf

Dear Dana and Gina. Please find attached the information requested on unit allocation in the event of a transfer. Please call with any questions. I will review the narrative portion of the draft rule revision as contained in the Agency's draft tomorrow. Sorry, I did not get to it today! Best, Renee

Renee Cipriano
Partner



Schiff Hardin LLP
233 South Wacker Drive
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Chicago, IL 60606

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f 312.258.5600
e rcipriano@schiffhardin.com
w schiffhardin.com

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Proposal to Modify Section 225.233(f)(3) Unit Allocation Amounts in the Event of Transfer of EGUs

Station	Column A. Station NOx Allocation Amount (TPY) in the Event of Transfer	Column B. Station NOx Allocation Amount (May 1 – Sept 30 Tons) in the Event of Transfer	Column C. Station SO2 Allocation Amount (TPY) in the Event of Transfer
Baldwin	6,000	2,400	6,000
Havana	1,800	720	1,500
Hennepin	1,500	600	6,000
Coffeen	2,000	800	250
Duck Creek	1,400	560	250
Edwards	3,000	1,200	10,000
Joppa	5,200	2,080	18,000
Newton	2,700	1,080	10,000

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AUG 25 2017

REVIEWER: MED

Attachment I

Email from Dana Vetterhoffer, IEPA, to Renee Cipriano,
Schiff Hardin (May 31, 2017, 3:25pm CST)

Vetterhoffer, Dana

From: Vetterhoffer, Dana
Sent: Wednesday, May 31, 2017 3:26 PM
To: Bloomberg, David E.; Armitage, Julie
Subject: FW: [External] MPS Revision--Requested Information

Hi Julie and David. See below.

Thanks,
Dana

From: Vetterhoffer, Dana
Sent: Wednesday, May 31, 2017 3:25 PM
To: 'Cipriano, Renee'
Cc: Roccaforte, Gina
Subject: RE: [External] MPS Revision--Requested Information

Hi Renee. Thank you for the information. The Agency is likely ok with the numbers, pending receipt of an explanation of how Dynegy arrived at them (for our understanding and for the TSD). Also, have you had a chance to review the narrative portion of the draft rule revisions?

Finally, the Agency is working on some minor rule changes that will be included in the next draft we provide to you.

Thanks,
Dana

From: Cipriano, Renee [<mailto:RCipriano@schiffhardin.com>]
Sent: Wednesday, May 24, 2017 5:02 PM
To: Roccaforte, Gina; Vetterhoffer, Dana
Subject: [External] MPS Revision--Requested Information

Dear Dana and Gina. Please find attached the information requested on unit allocation in the event of a transfer. Please call with any questions. I will review the narrative portion of the draft rule revision as contained in the Agency's draft tomorrow. Sorry, I did not get to it today! Best, Renee

Renee Cipriano
Partner



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REVIEWER: MED

Vetterhoffer, Dana

From: Vetterhoffer, Dana
Sent: Thursday, June 01, 2017 8:39 AM
To: Bloomberg, David E.; Davis, Rory
Subject: FW: [External] MPS Revision--Requested Information

Fyi.

Thanks,
Dana

From: Cipriano, Renee [mailto:RCipriano@schiffhardin.com]
Sent: Wednesday, May 31, 2017 5:14 PM
To: Vetterhoffer, Dana
Cc: Roccaforte, Gina
Subject: RE: [External] MPS Revision--Requested Information

I am checking on 1:30 pm. Be back as soon as I hear back. Thanks! Renee

From: Vetterhoffer, Dana [mailto:Dana.Vetterhoffer@Illinois.gov]
Sent: Wednesday, May 31, 2017 4:44 PM
To: Cipriano, Renee
Cc: Roccaforte, Gina
Subject: RE: [External] MPS Revision--Requested Information

Any time between 1:30 and 3:00 is good. 9:30 that morning works as well.

From: Cipriano, Renee [mailto:RCipriano@schiffhardin.com]
Sent: Wednesday, May 31, 2017 4:10 PM
To: Vetterhoffer, Dana
Cc: Roccaforte, Gina
Subject: RE: [External] MPS Revision--Requested Information

Ok great. On the call, we will make Monday work. Any particular time?

From: Vetterhoffer, Dana [mailto:Dana.Vetterhoffer@Illinois.gov]
Sent: Wednesday, May 31, 2017 4:06 PM
To: Cipriano, Renee
Cc: Roccaforte, Gina
Subject: RE: [External] MPS Revision--Requested Information

We're making those types of tweaks to the rule language, so hopefully they address your issues. David and I are both unavailable tomorrow and David is out on Friday. Would you and Rick be free for a call on Monday?

From: Cipriano, Renee [mailto:RCipriano@schiffhardin.com]
Sent: Wednesday, May 31, 2017 3:31 PM
To: Vetterhoffer, Dana
Cc: Roccaforte, Gina
Subject: RE: [External] MPS Revision--Requested Information

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AUG 25 2017

REVIEWER: M...

Electronic Filing: Received, Clerk's Office 1/2/2018

Hi ladies. Yes, I have looked at the narrative and it needs to be tweaked just because we have one chart not two. Perhaps we should schedule a call? Does tomorrow work? I can also have Rick D explain the chart so if you would like to have David and Rory join that might be helpful. Thank you! Renee

From: Vetterhoffer, Dana [mailto:Dana.Vetterhoffer@Illinois.gov]
Sent: Wednesday, May 31, 2017 3:25 PM
To: Cipriano, Renee
Cc: Roccaforte, Gina
Subject: RE: [External] MPS Revision--Requested Information

Hi Renee. Thank you for the information. The Agency is likely ok with the numbers, pending receipt of an explanation of how Dynegy arrived at them (for our understanding and for the TSD). Also, have you had a chance to review the narrative portion of the draft rule revisions?

Finally, the Agency is working on some minor rule changes that will be included in the next draft we provide to you.

Thanks,
Dana

From: Cipriano, Renee [mailto:RCipriano@schiffhardin.com]
Sent: Wednesday, May 24, 2017 5:02 PM
To: Roccaforte, Gina; Vetterhoffer, Dana
Subject: [External] MPS Revision--Requested Information

Dear Dana and Gina. Please find attached the information requested on unit allocation in the event of a transfer. Please call with any questions. I will review the narrative portion of the draft rule revision as contained in the Agency's draft tomorrow. Sorry, I did not get to it today! Best, Renee

Renee Cipriano
Partner

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Hardin**

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Attachment J

Email from Gina Roccaforte, IEPA, to Renee
Cipriano, Schiff Hardin at (June 6, 2017, 2:48pm CST)

Roccaforte, Gina

From: Cipriano, Renee <RCipriano@schiffhardin.com>
Sent: Tuesday, June 06, 2017 4:55 PM
To: Roccaforte, Gina
Cc: Vetterhoffer, Dana
Subject: [External] Re: Latest Draft of MPS

Thank you both! Renee

Excuse Typos
Sent from my iPhone

On Jun 6, 2017, at 2:48 PM, Roccaforte, Gina <Gina.Roccaforte@Illinois.gov> wrote:

Renee,

Please find attached, for your review, the latest draft of the MPS. Let us know when you wish to discuss.

Thank you,

Gina

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(217) 782-5544
(217) 782-9807 fax
gina.roccaforte@illinois.gov

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TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE B: AIR POLLUTION
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER c: EMISSION STANDARDS AND LIMITATIONS FOR STATIONARY
SOURCES

PART 225
CONTROL OF EMISSIONS FROM LARGE COMBUSTION SOURCES

SUBPART A: GENERAL PROVISIONS

Section	
225.100	Severability
225.120	Abbreviations and Acronyms
225.130	Definitions
225.140	Incorporations by Reference

SUBPART B: CONTROL OF MERCURY EMISSIONS FROM COAL-FIRED ELECTRIC
GENERATING UNITS

Section	
225.200	Purpose
225.202	Measurement Methods
225.205	Applicability
225.210	Compliance Requirements
225.220	Clean Air Act Permit Program (CAAPP) Permit Requirements
225.230	Emission Standards for EGUs at Existing Sources
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225.APPENDIX A	Specified EGUs for Purposes of the CPS Midwest Generation's Coal-Fired Boilers as of July 1, 2006)
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AUTHORITY: Implementing and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/27].

SOURCE: Adopted in R06-25 at 31 Ill. Reg. 129, effective December 21, 2006; amended in R06-26 at 31 Ill. Reg. 12864, effective August 31, 2007; amended in R09-10 at 33 Ill. Reg. 10427, effective June 26, 2009; amended in R15-21 at 39 Ill. Reg. 16225, effective December 7, 2015; amended in R17-__ at __ Ill. Reg. _____, effective _____.

SUBPART B: CONTROL OF MERCURY EMISSIONS FROM COAL-FIRED ELECTRIC GENERATING UNITS

Section 225.233 Multi-Pollutant Standards (MPS)

- a) General.
 - 1) As an alternative to compliance with the emissions standards of Section 225.230(a), the owner of eligible EGUs may elect for those EGUs to demonstrate compliance pursuant to this Section, which establishes control requirements and standards for emissions of NO_x and SO₂, as well as for emissions of mercury.
 - 2) For the purpose of this Section, the following requirements apply:
 - A) An eligible EGU is an EGU that is located in Illinois and which commenced commercial operation on or before December 31, 2004; and
 - B) Ownership of an eligible EGU is determined based on direct ownership, by the holding of a majority interest in a company that owns the EGU or EGUs, or by the common ownership of the company that owns the EGU, whether through a parent-subsidiary relationship, as a sister corporation, or as an affiliated corporation with the same parent corporation, provided that the owner has the right or authority to submit a CAAPP application on behalf of the EGU.
 - 3) The owner of one or more EGUs electing to demonstrate compliance with this Subpart B pursuant to this Section must submit an application for a CAAPP permit modification to the Agency, as provided in Section 225.220, that includes the information specified in subsection (b) of this Section and which clearly states the owner's election to demonstrate compliance pursuant to this Section 225.233.
 - A) If the owner of one or more EGUs elects to demonstrate compliance with this Subpart pursuant to this Section, then all EGUs it owns in Illinois as of July 1, 2006, as defined in

subsection (a)(2)(B) of this Section, must be thereafter subject to the standards and control requirements of this Section, except as provided in subsection (a)(3)(B). Such EGUs must be referred to as a Multi-Pollutant Standard (MPS) Group.

- B) Notwithstanding the foregoing, the owner may exclude from an MPS Group any EGU scheduled for permanent shutdown that the owner so designates in its CAAPP application required to be submitted pursuant to subsection (a)(3) of this Section, with compliance for such units to be achieved by means of Section 225.235.

4) Notwithstanding any contrary provision in this subsection (a), on and after January 1, 2018:

- A) The following EGUs shall be merged into a new MPS Group: Baldwin Units 1, 2, and 3; Coffeen Units 1 and 2; Duck Creek Unit 1; E.D. Edwards Units 2 and 3; Havana Unit 9; Hennepin Units 1 and 2; Joppa Units 1, 2, 3, 4, 5, and 6; and Newton Unit 1. If one or more of the above EGUs are transferred to a different owner, such EGU or EGUs will become a separate MPS Group on and after the date of transfer. For purposes of this Section, "transfer" means sale, conveyance, transfer, or other change in ownership of an EGU; and
- B) No other EGUs except for those listed in subsection (a)(4)(A) of this Section are subject to the requirements of this Section.

54) When an EGU is subject to the requirements of this Section, the requirements apply to all owners or operators of the EGU.

b) Notice of Intent.

The owner of one or more EGUs that intends to comply with this Subpart B by means of this Section must notify the Agency of its intention by December 31, 2007. The following information must accompany the notification:

- 1) The identification of each EGU that will be complying with this Subpart B by means of the multi-pollutant standards contained in this Section, with evidence that the owner has identified all EGUs that it owned in Illinois as of July 1, 2006 and which commenced commercial operation on or before December 31, 2004;
- 2) If an EGU identified in subsection (b)(1) of this Section is also owned or operated by a person different than the owner submitting the notice of intent, a demonstration that the submitter has the right to commit the EGU

or authorization from the responsible official for the EGU accepting the application;

- 3) The Base Emission Rates for the EGUs, with copies of supporting data and calculations;
- 4) A summary of the current control devices installed and operating on each EGU and identification of the additional control devices that will likely be needed for the each EGU to comply with emission control requirements of this Section, including identification of each EGU in the MPS group that will be addressed by subsection (c)(1)(B) of this Section, with information showing that the eligibility criteria for this subsection (b) are satisfied; and
- 5) Identification of each EGU that is scheduled for permanent shut down, as provided by Section 225.235, which will not be part of the MPS Group and which will not be demonstrating compliance with this Subpart B pursuant to this Section.

c) Control Technology Requirements for Emissions of Mercury.

1) Requirements for EGUs in an MPS Group.

- A) For each EGU in an MPS Group other than an EGU that is addressed by subsection (c)(1)(B) of this Section for the period beginning July 1, 2009 (or December 31, 2009 for an EGU for which an SO₂ scrubber or fabric filter is being installed to be in operation by December 31, 2009), and ending on December 31, 2014 (or such earlier date that the EGU is subject to the mercury emission standard in subsection (d)(1) of this Section), the owner or operator of the EGU must install, to the extent not already installed, and properly operate and maintain one of the following emission control devices:
 - i) A Halogenated Activated Carbon Injection System, complying with the sorbent injection requirements of subsection (c)(2) of this Section, except as may be otherwise provided by subsection (c)(4) of this Section, and followed by a Cold-Side Electrostatic Precipitator or Fabric Filter; or
 - ii) If the boiler fires bituminous coal, a Selective Catalytic Reduction (SCR) System and an SO₂ Scrubber.
- B) An owner of an EGU in an MPS Group has two options under this subsection (c). For an MPS Group that contains EGUs smaller than 90 gross MW in capacity, the owner may designate any such

EGUs to be not subject to subsection (c)(1)(A) of this Section. Or, for an MPS Group that contains EGUs with gross MW capacity of less than 115 MW, the owner may designate any such EGUs to be not subject to subsection (c)(1)(A) of this Section, provided that the aggregate gross MW capacity of the designated EGUs does not exceed 4% of the total gross MW capacity of the MPS Group. For any EGU subject to one of these two options, unless the EGU is subject to the emission standards in subsection (d)(2) of this Section, beginning on January 1, 2013, and continuing until such date that the owner or operator of the EGU commits to comply with the mercury emission standard in subsection (d)(2) of this Section, the owner or operator of the EGU must install and properly operate and maintain a Halogenated Activated Carbon Injection System that complies with the sorbent injection requirements of subsection (c)(2) of this Section, except as may be otherwise provided by subsection (c)(4) of this Section, and followed by either a Cold-Side Electrostatic Precipitator or Fabric Filter. The use of a properly installed, operated, and maintained Halogenated Activated Carbon Injection System that meets the sorbent injection requirements of subsection (c)(2) of this Section is defined as the "principal control technique."

- 2) For each EGU for which injection of halogenated activated carbon is required by subsection (c)(1) of this Section, the owner or operator of the EGU must inject halogenated activated carbon in an optimum manner, which, except as provided in subsection (c)(4) of this Section, is defined as all of the following:
 - A) The use of an injection system designed for effective absorption of mercury, considering the configuration of the EGU and its ductwork;
 - B) The injection of halogenated activated carbon manufactured by Alstom, Norit, or Sorbent Technologies, Calgon Carbon's FLUEPAC CF Plus, or Calgon Carbon's FLUEPAC MC Plus, or the injection of any other halogenated activated carbon or sorbent that the owner or operator of the EGU has demonstrated to have similar or better effectiveness for control of mercury emissions; and
 - C) The injection of sorbent at the following minimum rates, as applicable:
 - i) For an EGU firing subbituminous coal, 5.0 lbs per million actual cubic feet or, for any cyclone-fired EGU that will install a scrubber and baghouse by December 31, 2012, and

which already meets an emission rate of 0.020 lbs mercury/GWh gross electrical output or at least 75 percent reduction of input mercury, 2.5 lbs per million actual cubic feet;

- ii) For an EGU firing bituminous coal, 10.0 lbs per million actual cubic feet for any cyclone-fired EGU that will install a scrubber and baghouse by December 31, 2012, and which already meets an emission rate of 0.020 lb mercury/GWh gross electrical output or at least 75 percent reduction of input mercury, 5.0 lbs per million actual cubic feet;
 - iii) For an EGU firing a blend of subbituminous and bituminous coal, a rate that is the weighted average of the above rates, based on the blend of coal being fired; or
 - iv) A rate or rates set lower by the Agency, in writing, than the rate specified in any of subsections (c)(2)(C)(i), (c)(2)(C)(ii), or (c)(2)(C)(iii) of this Section on a unit-specific basis, provided that the owner or operator of the EGU has demonstrated that such rate or rates are needed so that carbon injection will not increase particulate matter emissions or opacity so as to threaten noncompliance with applicable requirements for particulate matter or opacity.
- D) For the purposes of subsection (c)(2)(C) of this Section, the flue gas flow shall be the gas flow rate in the stack for all units except for those equipped with activated carbon injection prior to a hot-side electrostatic precipitator; for units equipped with activated carbon injection prior to a hot-side electrostatic precipitator, the flue gas flow rate shall be the gas flow rate at the inlet to the hot-side electrostatic precipitator, which shall be determined as the stack flow rate adjusted through the use of Charles' Law for the differences in gas temperatures in the stack and at the inlet to the electrostatic precipitator ($V_{esp} = V_{stack} \times T_{esp}/T_{stack}$, where V = gas flow rate in acf and T = gas temperature in Kelvin or Rankine
- 3) The owner or operator of an EGU that seeks to operate an EGU with an activated carbon injection rate or rates that are set on a unit-specific basis pursuant to subsection (c)(2)(C)(iv) of this Section must submit an application to the Agency proposing such rate or rates, and must meet the requirements of subsections (c)(3)(A) and (c)(3)(B) of this Section, subject to the limitations of subsections (c)(3)(C) and (c)(3)(D) of this Section:
- A) The application must be submitted as an application for a new or revised federally enforceable operating permit for the EGU, and it

must include a summary of relevant mercury emission data for the EGU, the unit-specific injection rate or rates that are proposed, and detailed information to support the proposed injection rate or rates; and

- B) This application must be submitted no later than the date that activated carbon must first be injected. For example, the owner or operator of an EGU that must inject activated carbon pursuant to subsection (c)(1)(A) of this subsection must apply for unit-specific injection rate or rates by July 1, 2009. Thereafter, the owner or operator of the EGU may supplement its application; and
 - C) Any decision of the Agency denying a permit or granting a permit with conditions that set a lower injection rate or rates may be appealed to the Board pursuant to Section 39 of the Act; and
 - D) The owner or operator of an EGU may operate at the injection rate or rates proposed in its application until a final decision is made on the application, including a final decision on any appeal to the Board.
- 4) During any evaluation of the effectiveness of a listed sorbent, an alternative sorbent, or other technique to control mercury emissions, the owner or operator of an EGU need not comply with the requirements of subsection (c)(2) of this Section for any system needed to carry out the evaluation, as further provided as follows:
- A) The owner or operator of the EGU must conduct the evaluation in accordance with a formal evaluation program submitted to the Agency at least 30 days prior to commencement of the evaluation;
 - B) The duration and scope of the evaluation may not exceed the duration and scope reasonably needed to complete the desired evaluation of the alternative control technique, as initially addressed by the owner or operator in a support document submitted with the evaluation program;
 - C) The owner or operator of the EGU must submit a report to the Agency no later than 30 days after the conclusion of the evaluation that describes the evaluation conducted and which provides the results of the evaluation; and
 - D) If the evaluation of the alternative control technique shows less effective control of mercury emissions from the EGU than was achieved with the principal control technique, the owner or operator of the EGU must resume use of the principal control technique. If the evaluation of the alternative control technique

shows comparable effectiveness to the principal control technique, the owner or operator of the EGU may either continue to use the alternative control technique in a manner that is at least as effective as the principal control technique, or it may resume use of the principal control technique. If the evaluation of the alternative control technique shows more effective control of mercury emissions than the control technique, the owner or operator of the EGU must continue to use the alternative control technique in a manner that is more effective than the principal control technique, so long as it continues to be subject to this subsection (c).

- 5) In addition to complying with the applicable recordkeeping and monitoring requirements in Sections 225.240 through 225.290, the owner or operator of an EGU that elects to comply with this Subpart B by means of this Section must also comply with the following additional requirements:
 - A) For the first 36 months that injection of sorbent is required, it must maintain records of the usage of sorbent, the fluegas flow rate from the EGU (and, if the unit is equipped with activated carbon injection prior to a hot-side electrostatic precipitator, flue gas temperature at the inlet of the hot-side electrostatic precipitator and in the stack), and the sorbent feed rate, in pounds per million actual cubic feet of flue, on a weekly average;
 - B) After the first 36 months that injection of sorbent is required, it must monitor activated sorbent feed rate to the EGU, gas flow rate in the stack, and, if the unit is equipped with activated carbon injection prior to a hot-side electrostatic precipitator, flue gas temperature at the inlet of the hot-side electrostatic precipitator and in the stack. It must automatically record this data and the sorbent carbon feed rate, in pounds per million actual cubic feet of flue gas, on an hourly average; and
 - C) If a blend of bituminous and subbituminous coal is fired in the EGU, it must keep records of the amount of each type of coal burned and the required injection rate for injection of activated carbon, on a weekly basis.
- 6) Until June 30, 2012, as an alternative to the CEMS or excepted monitoring system (sorbent trap system) monitoring, recordkeeping, and reporting requirements in Sections 225.240 through 225.290, the owner or operator of an EGU may elect to comply with the emissions testing, monitoring, recordkeeping, and reporting requirements in Section 225.239(c), (d), (e), (f)(1) and (2), (h)(2), (i)(3) and (4), and (j)(1).

- 7) In addition to complying with the applicable reporting requirements in Sections 225.240 through 225.290, the owner or operator of an EGU that elects to comply with this Subpart B by means of this Section must also submit quarterly reports for the recordkeeping and monitoring conducted pursuant to subsection (c)(5) of this Section.
- d) Emission Standards for Mercury.
- 1) For each EGU in an MPS Group that is not addressed by subsection (c)(1)(B) of this Section, beginning January 1, 2015 (or such earlier date when the owner or operator of the EGU notifies the Agency that it will comply with these standards) and continuing thereafter, the owner or operator of the EGU must comply with one of the following standards on a rolling 12-month basis:
 - A) An emission standard of 0.0080 lb mercury/GWh gross electrical output; or
 - B) A minimum 90-percent reduction of input mercury.
 - 2) For each EGU in an MPS Group that has been addressed under subsection (c)(1)(B) of this Section, beginning on the date when the owner or operator of the EGU notifies the Agency that it will comply with these standards and continuing thereafter, the owner or operator of the EGU must comply with one of the following standards on a rolling 12-month basis:
 - A) An emission standard of 0.0080 lb mercury/GWh gross electrical output; or
 - B) A minimum 90-percent reduction of input mercury.
 - 3) Compliance with the mercury emission standard or reduction requirement of this subsection (d) must be calculated in accordance with Section 225.230(a) or (d), or Section 225.232 until December 31, 2013.
 - 4) Until June 30, 2012, as an alternative to demonstrating compliance with the emissions standards in this subsection (d), the owner or operator of an EGU may elect to comply with the emissions testing requirements in Section 225.239(a)(4), (b), (c), (d), (e), (f), (g), (h), (i), and (j) of this Subpart.
- e) Emission Standards for NO_x and SO₂.
- 1) NO_x Emission Standards.

- A) Beginning in calendar year 2012 and continuing through calendar year 2017 in each calendar thereafter, for the EGUs in each MPS Group, the owner and operator of the EGUs must comply with an overall NO_x annual emission rate of no more than 0.11 lb/million Btu or an emission rate equivalent to 52 percent of the Base Annual Rate of NO_x emissions, whichever is more stringent.
 - B) Beginning in the 2012 ozone season and continuing through the 2017 and continuing in each ozone season thereafter, for the EGUs in each MPS Group, the owner and operator of the EGUs must comply with an overall NO_x seasonal emission rate of no more than 0.11 lb/million Btu or an emission rate equivalent to 80 percent of the Base Seasonal Rate of NO_x emissions, whichever is more stringent.
 - C) Except as otherwise provided in subsection (f) of this Section, beginning in calendar year 2018 and continuing in each calendar year thereafter, the owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined annual NO_x emissions in excess of 25,000 tons from all EGUs.
 - D) Except as otherwise provided in subsection (f) of this Section, beginning in the year 2018 and continuing in each year thereafter, from May 1 to September 30, the owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined NO_x emissions in excess of 11,500 tons from all EGUs.
 - E) On and after January 1, 2018, the owner and operator of Baldwin Units 1 and 2; Coffeen Units 1 and 2; Duck Creek Unit 1; E.D. Edwards Unit 3; and Havana Unit 9 must:
 - i) Operate existing SCR control systems on the EGUs in accordance with good operating practices and at all times the EGUs are operating; and
 - ii) From May 1 to September 30, comply with a combined NO_x average emission rate of no more than 0.10 lb/mmBtu.
- 2) SO₂ Emission Standards.
- A) Beginning in calendar year 2013 and continuing in calendar year 2014, for the EGUs in each MPS Group, the owner and operator of the EGUs must comply with an overall SO₂ annual emission rate

of 0.33 lb/million Btu or a rate equivalent to 44 percent of the Base Rate of SO₂ emissions, whichever is more stringent.

- B) Beginning in calendar year 2015 and continuing through calendar year 2017 in each calendar year thereafter, for the EGUs in each MPS Grouping, the owner and operator of the EGUs must comply with an overall annual emission rate for SO₂ of 0.25 lbs/million Btu or a rate equivalent to 35 percent of the Base Rate of SO₂ emissions, whichever is more stringent.
 - C) Except as otherwise provided in subsection (f) of this Section, beginning in calendar year 2018 and continuing in each calendar year thereafter, the owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined annual SO₂ emissions in excess of 55,000 tons from all EGUs.
 - D) Beginning in calendar year 2018 and continuing in each calendar year thereafter, the owner and operator of Joppa Units 1, 2, 3, 4, 5, and 6 must not cause or allow to be discharged into the atmosphere combined annual SO₂ emissions in excess of 19,860 tons from such EGUs.
- f) Transfer of EGUs in an MPS Group.
- 1) If EGUs in an MPS Group are transferred to a different owner:
 - A) For the MPS Group from which EGUs are transferred: The combined emissions limitations for the MPS Group set forth in subsections (e)(1) and (e)(2) of this Section, as applicable, must be adjusted by subtracting from those limitations the applicable allocation amounts set forth in Columns A, B, and C in subsection (f)(2) of this Section that are attributable to the transferred EGUs. The owner and operator of the MPS Group must comply with the adjusted emissions limitations beginning in the calendar year in which the transfer takes place.
 - B) For a new MPS Group consisting of the acquired EGUs:
 - i) The owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined annual NO_x emissions in excess of the applicable annual NO_x limitation from all EGUs. The applicable annual NO_x limitation shall be the sum of the allocation amounts attributable to all EGUs in the MPS

Group set forth in Column A of subsection (f)(2) of this Section.

ii) From May 1 to September 30, the owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined NO_x emissions in excess of the applicable seasonal NO_x limitation from all EGUs. The applicable seasonal NO_x limitation shall be the sum of the allocation amounts attributable to all EGUs in the MPS Group set forth in Column B of subsection (f)(2) of this Section.

iii) The owner and operator of the EGUs in an MPS Group must not cause or allow to be discharged into the atmosphere combined annual SO₂ emissions in excess of the applicable annual SO₂ limitation from all EGUs. The applicable annual SO₂ limitation shall be the sum of the unit allocation amounts attributable to all EGUs in the MPS Group set forth in Column C of subsection (f)(2) of this Section.

C) If any of the EGUs specified in subsection (e)(1)(E) of this Section are transferred to a different owner, the new owner and operator of the EGU or EGUs must comply with the provisions of subsections (e)(1)(E)(i) and (e)(1)(E)(ii) of this Section on and after the date of transfer. If the transfer takes place between May 1 and September 30, the new owner and operator must demonstrate compliance with the provisions of subsection (e)(1)(E)(ii) of this Section for the entire May 1 through September 30 compliance period.

D) The owner and operator of the EGUs as of the last day of the applicable compliance period must demonstrate compliance with the emission standards of this Section for the entire applicable compliance period.

2) Allocation Amounts in the Event of Transfer of EGUs.

<u>Column A.</u>	<u>Column B.</u>	<u>Column C.</u>
<u>NO_x</u>	<u>NO_x</u>	<u>SO₂</u>
<u>Allocation</u>	<u>Allocation</u>	<u>Allocation</u>
<u>Amount</u>	<u>Amount (May</u>	<u>Amount</u>
<u>(TPY) in the</u>	<u>1 - Sept 30</u>	<u>(TPY) in the</u>
<u>Event of</u>	<u>Tons) in the</u>	<u>Event of</u>
<u>Transfer</u>	<u>Event of</u>	<u>Transfer</u>
	<u>Transfer</u>	

A)	Baldwin	6,000	2,400	6,000
B)	Havana	1,800	720	1,500
C)	Hennepin	1,500	600	6,000
D)	Coffeen	2,000	800	250
E)	Duck Creek	1,400	560	250
F)	Edwards	3,000	1,200	10,000
G)	Joppa	5,200	2,080	18,000
H)	Newton	2,700	1,080	10,000

4) If EGUs in an MPS Group are transferred to a different owner:

- A) The transferring owner must notify the Agency's Bureau of Air, Compliance Section, in writing within seven days of the date of transfer. The notification must include the following information:
- i) Name and address of the transferring owner and operator;
 - ii) List of the EGUs transferred;
 - iii) For the remaining EGUs in the MPS Group, calculations pursuant to subsection (f)(1)(A) of this Section demonstrating the adjusted combined annual NO_x emissions limitation, the adjusted combined NO_x emissions limitation from May 1 to September 30, and the adjusted combined annual SO₂ emissions limitation that are applicable to the MPS Group;
 - iv) Name and address of the new owner and operator; and
 - v) Date of transfer.
- B) The acquiring owner must notify the Agency's Bureau of Air, Compliance Section, in writing within seven days of the date of transfer. The notification must include the following information:
- i) Name and address of the acquiring owner and operator;
 - ii) Name and address of the transferring owner and operator;

- iii) List of the EGUs acquired;
- iv) Calculations pursuant to subsection (f)(1)(B) of this Section demonstrating the combined annual NO_x emissions limitation, the combined NO_x emissions limitation from May 1 to September 30, and the combined annual SO₂ emissions limitation that are applicable to the acquiring owner and operator's MPS Group; and
- v) Date of transfer.

~~3) Ameren MPS Group Multi-Pollutant Standard~~

~~A) Notwithstanding the provisions of subsections (e)(1) and (2) of this Section, this subsection (e)(3) applies to the Ameren MPS Group as described in the notice of intent submitted by Ameren Energy Resources in accordance with subsection (b) of this Section.~~

~~B) NO_x Emission Standards.~~

~~i) Beginning in the 2010 ozone season and continuing in each ozone season thereafter, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall NO_x seasonal emission rate of no more than 0.11 lb/million Btu.~~

~~ii) Beginning in calendar year 2010 and continuing in calendar year 2011, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall NO_x annual emission rate of no more than 0.14 lb/million Btu.~~

~~iii) Beginning in calendar year 2012 and continuing in each calendar year thereafter, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall NO_x annual emission rate of no more than 0.11 lb/million Btu.~~

~~C) SO₂ Emission Standards~~

~~i) Beginning in calendar year 2010 and continuing in each calendar year through 2013, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall SO₂ annual emission rate of 0.50 lb/million Btu.~~

- ii) ~~In calendar year 2014, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall SO₂ annual emission rate of 0.43 lb/million Btu.~~
 - iii) ~~Beginning in calendar year 2015 and continuing in calendar year 2016, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall SO₂ annual emission rate of 0.25 lb/million Btu.~~
 - iv) ~~Beginning in calendar year 2017 and continuing in each calendar year thereafter, for the EGUs in the Ameren MPS Group, the owner and operator of the EGUs must comply with an overall SO₂ annual emission rate of 0.23 lb/million Btu.~~
- 4) ~~Compliance with the NO_x and SO₂ emission standards must be demonstrated in accordance with Sections 225.310, 225.410, and 225.510. The owner or operator of EGUs must complete the demonstration of compliance before March 1 of the following year for annual standards and before November 1 for seasonal standards, by which date a compliance report must be submitted to the Agency.~~

gf) Requirements for NO_x and SO₂ Allowances.

- 1) The owner or operator of EGUs in an MPS Group must not sell or trade to any person or otherwise exchange with or give to any person NO_x allowances allocated to the EGUs in the MPS Group for vintage years 2012 and beyond that would otherwise be available for sale, trade, or exchange as a result of actions taken to comply with the standards in subsection (e) of this Section. Such allowances that are not retired for compliance must be surrendered to the Agency on an annual basis, beginning in calendar year 2013. This provision does not apply to the use, sale, exchange, gift, or trade of allowances among the EGUs in an MPS Group.
- 2) The owners or operators of EGUs in an MPS Group must not sell or trade to any person or otherwise exchange with or give to any person SO₂ allowances allocated to the EGUs in the MPS Group for vintage years 2013 and beyond that would otherwise be available for sale or trade as a result of actions taken to comply with the standards in subsection (e) of this Section. Such allowances that are not retired for compliance, or otherwise surrendered pursuant to a consent decree to which the State of Illinois is a party, must be surrendered to the Agency on an annual basis, beginning in calendar year 2014. This provision does not apply to the use,

sale, exchange, gift, or trade of allowances among the EGUs in an MPS Group.

- 3) The provisions of this subsection (f) do not restrict or inhibit the sale or trading of allowances that become available from one or more EGUs in a MPS Group as a result of holding allowances that represent over-compliance with the NO_x or SO₂ standard in subsection (e) of this Section, once such a standard becomes effective, whether such over-compliance results from control equipment, fuel changes, changes in the method of operation, unit shut downs, or other reasons.
- 4) For purposes of this subsection (f), NO_x and SO₂ allowances mean allowances necessary for compliance with Sections 225.310, 225.410, or 225.510, 40 CFR 72, or Subparts AA and AAAA of 40 CFR 96, or any future federal NO_x or SO₂ emissions trading programs that modify or replace these programs. This Section does not prohibit the owner or operator of EGUs in an MPS Group from purchasing or otherwise obtaining allowances from other sources as allowed by law for purposes of complying with federal or state requirements, except as specifically set forth in this Section.
- 5) By March 1, 2010, and continuing each year thereafter, the owner or operator of EGUs in an MPS Group must submit a report to the Agency that demonstrates compliance with the requirements of this subsection (f) for the previous calendar year, and which includes identification of any allowances that have been surrendered to the USEPA or to the Agency and any allowances that were sold, gifted, used, exchanged, or traded because they became available due to over-compliance. All allowances that are required to be surrendered must be surrendered by August 31, unless USEPA has not yet deducted the allowances from the previous year. A final report must be submitted to the Agency by August 31 of each year, verifying that the actions described in the initial report have taken place or, if such actions have not taken place, an explanation of all changes that have occurred and the reasons for such changes. If USEPA has not deducted the allowances from the previous year by August 31, the final report will be due, and all allowances required to be surrendered must be surrendered, within 30 days after such deduction occurs.

h) Recordkeeping.

On and after January 1, 2018, the owner and operator of the EGUs in an MPS Group must keep and maintain all records used to demonstrate compliance with this Section, including but not limited to those listed in subsections (h)(1) and (h)(2). Copies of such records must be kept at the source and maintained for at least five years from the date the document is created and must be submitted by

the owner and operator to the Agency within 30 days after receipt of a written request by the Agency.

- 1) All emissions monitoring information gathered in accordance with 40 CFR 75.
- 2) Copies of all reports, compliance certifications, and other documents necessary to demonstrate compliance with the requirements of this Section.

i) Reporting.

- 1) Prior to January 1, 2018, compliance with the NO_x and SO₂ emission standards must be demonstrated in accordance with Sections 225.310, 225.410, and 225.510. The owner or operator of EGUs must complete the demonstration of compliance before March 1 of the following year for annual standards and before November 1 for seasonal standards, by which date a compliance report must be submitted to the Agency.
- 2) On and after January 1, 2018, the owner and operator of the EGUs in an MPS Group must demonstrate compliance with the applicable requirements set forth in this Section as set forth below.
 - A) Beginning in 2019, the owner and operator of EGUs in an MPS Group must submit to the Agency's Bureau of Air, Compliance Section, a report demonstrating compliance with the emissions standards under subsections (e)(1)(C), (e)(2)(C), (e)(2)(D), and (f)(1) of this Section, as applicable, and with the requirements under subsection (e)(1)(E)(i) of this Section, as applicable, on or before March 1 of each year. Such compliance report must include the following for the preceding calendar year:
 - i) Actual emissions of each pollutant, expressed in tons, for each individual EGU in the MPS Group.
 - ii) Combined actual emissions of each pollutant, expressed in tons, for all EGUs in the MPS Group.
 - iii) Combined actual emissions of SO₂, expressed in tons, for all Joppa EGUs.
 - iv) A statement indicating whether the SCR control systems on Baldwin Units 1 and 2; Coffeen Units 1 and 2; Duck Creek Unit 1; E.D. Edwards Unit 3; and Havana Unit 9 were operated at all times such EGUs were operating and in accordance with good operating practices.

v) A statement indicating whether the EGUs in an MPS Group were operated in compliance with the requirements of this Section.

vi) A certification by a responsible official that states the following:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

B) By November 1 of each year, the owner and operator of EGUs in an MPS Group must submit to the Agency's Bureau of Air, Compliance Section, a report demonstrating compliance with the emissions standards under subsections (e)(1)(D), (e)(1)(E)(ii), and (f)(1) of this Section, as applicable. Such compliance report must include the following for the preceding May 1 through September 30:

i) Actual emissions of NO_x, expressed in tons, for each individual EGU in the MPS Group.

ii) Combined actual emissions of NO_x, expressed in tons, of all EGUs in the MPS Group.

iii) NO_x average emission rate (lbs/mmBtu) for each of Baldwin Units 1 and 2; Coffeen Units 1 and 2; Duck Creek Unit 1; E.D. Edwards Unit 3; and Havana Unit 9.

iv) Combined NO_x average emission rate (lbs/mmBtu) for Baldwin Units 1 and 2; Coffeen Units 1 and 2; Duck Creek Unit 1; E.D. Edwards Unit 3; and Havana Unit 9.

v) A statement indicating whether the EGUs in an MPS Group were operated in compliance with the requirements of this Section.

- vi) A certification by a responsible official that states the following:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

- 3) For each EGU in an MPS Group, the owner or operator must promptly notify the Agency of deviations from any of the requirements of this Section. At a minimum, these notifications must include a description of such deviations within 30 days after discovery of the deviations, a discussion of the possible cause of such deviations, and a description of any corrective actions and preventative measures taken.

~~g) Notwithstanding 35 Ill. Adm. Code 201.146(hhh), until an EGU has complied with the applicable emission standards of subsections (d) and (e) of this Section for 12 months, the owner or operator of the EGU must obtain a construction permit for any new or modified air pollution control equipment that it proposes to construct for control of emissions of mercury, NO_x, or SO₂.~~

(Source: Amended at __ Ill. Reg. ____, effective _____)

Attachment K

Email from Renee Cipriano, Schiff Hardin, to Gina Roccaforte, IEPA (June 9, 2017, 2:44pm CST)

Roccaforte, Gina

From: Cipriano, Renee <RCipriano@schiffhardin.com>
Sent: Friday, June 09, 2017 2:44 PM
To: Roccaforte, Gina
Subject: [External]
Attachments: Revised Proposal for Transfer Sale Tons.pdf

Hi Gina: As requested, the revised allocations. Thank you. Have a good weekend! Renee

This message and any attachments may contain confidential information protected by the attorney-client or other privilege. If you believe that it has been sent to you in error, please reply to the sender that you received the message in error. Then delete it. Thank you.

MED

IEPA - DIVISION OF RECORDS MANAGEMENT
RELEASABLE

AUG 25 2017

REVIEWER: MED

Revised Proposal to Modify Section 225.233(f)(3) Unit Allocation Amounts in the Event of Transfer or Sale of EGUs

Station	Column A. Station NOx Allocation Amount (TPY) in the Event of Transfer	Column B. Station NOx Allocation Amount (May 1 – Sept 30 Tons) in the Event of Transfer	Column C. Station SO2 Allocation Amount (TPY) in the Event of Transfer
Baldwin	6,000	2,700	6,000
Havana	1,800	810	1,500
Hennepin	1,500	675	6,000
Coffeen	2,000	900	250
Duck Creek	1,400	630	250
Edwards	3,000	1,350	10,000
Joppa	5,200	2,340	18,000
Newton	2,700	1,215	10,000

IEPA - DIVISION OF RECORDS MANAGEMENT
RELEASABLE

AUG 25 2017

REVIEWER: MED

Attachment L

Illinois MPS Proposed Rule Change—Negotiated Terms
(Mar. 22, 2017)

March 22, 2017

Illinois MPS Proposed Rule Change – Negotiated Terms

1. The Illinois EPA will expeditiously seek changes to the Multi-Pollutant Standard (MPS) in a proposed rulemaking before the Illinois Pollution Control Board. Dynegey agrees to promptly provide Illinois EPA with any and all technical/operational information needed to support the proposed rulemaking.
2. The MPS proposal will combine the IPH and DMG MPS groups into a single merged group.
3. The MPS proposal will replace the MPS rate limits with the following permanent tonnage caps that will not be changed as the result of unit retirements:
 - a. Annual SO₂
 - i. 55,000 tons for the merged MPS group, and
 - ii. Of that cap for the merged MPS group, Joppa Power Station may not emit more than 19,860 tons SO₂ annually.
 - b. Annual NO_x
 - i. 25,000 tons for the merged MPS group
 - c. Ozone season (May 1 – September 30) NO_x
 - i. 11,500 tons for the merged MPS group,
 - ii. A requirement to operate existing SCR control systems on operating units in accordance with good operating practices, and
 - iii. An ozone season average limit of 0.10 #NO_x/mmBtu for the group of operating SCR units.
4. Newton Unit 2 will be removed from Newton's CAAPP permit and a requirement to retire the unit may be included in the revised MPS rule.
5. Changes to synchronize the Illinois Mercury Rule with the federal MATS will not be included in this MPS rule change proposal.

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In the Matter of:)
)
AMENDMENTS TO) R2018-20
) (Rulemaking – Air)
35 ILL. ADM. CODE 225.233,)
MULTI-POLLUTANT STANDARDS (MPS))

CERTIFICATE OF SERVICE

The undersigned certifies that a true copy of the foregoing **NOTICE OF FILING and ENVIRONMENTAL GROUPS' PREFILED QUESTIONS FOR RORY DAVIS, ENGINEER, AIR POLLUTION CONTROL DIVISION, ILLINOIS ENVIRONMENTAL PROTECTION AGENCY** on behalf of the Environmental Law & Policy Center in R2018-20 were served upon the attached service list by e-mail on January 2, 2018.



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