BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	R18-
AMENDMENTS TO	)	(Rulemaking – Air)
35 ILL. ADM. CODE 225.233,	)	
MULTI-POLLUTANT STANDARDS (MPS)	)	

TABLE OF CONTENTS OF REGULATORY SUBMITTAL

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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NOTICE

TO: Don Brown
Clerk
Illinois Pollution Control Board
James R. Thompson Center
100 West Randolph St., Suite 11-500
Chicago, IL 60601-3218

Andrew Armstrong
Division Chief of Environmental Enforcement
Office of the Attorney General
100 West Randolph St., Suite 1200
Chicago, IL 60601

Office of Legal Services
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702-1271

PLEASE TAKE NOTICE that I have today filed with the Office of the Clerk of the Illinois Pollution Control Board the RULEMAKING PROPOSAL entitled "AMENDMENTS TO 35 ILL. ADM. CODE 225.233, MULTI-POLLUTANT STANDARDS (MPS)," MOTION FOR EXPEDITED REVIEW, AND APPEARANCES of the Illinois Environmental Protection Agency, a copy of which is herewith served upon you.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Gina Roccaforte
Gina Roccaforte
Assistant Counsel
Division of Legal Counsel

DATED: October 2, 2017

1021 North Grand Avenue East
P. O. Box 19276
Springfield, IL 62794-9276
217/782-5544

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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APPEARANCE

The undersigned hereby enters her appearance as an attorney on behalf of the Illinois Environmental Protection Agency.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Dana Vetterhoffer
Dana Vetterhoffer
Deputy General Counsel
Division of Legal Counsel

DATED: October 2, 2017

1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276
217/782-5544
dana.vetterhoffer@illinois.gov

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By: /s/ Gina Roccaforte
Gina Roccaforte
Assistant Counsel
Division of Legal Counsel

DATED: October 2, 2017

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P.O. Box 19276
Springfield, Illinois 62794-9276
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gina.roccaforte@illinois.gov

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ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
PROPOSAL OF REGULATIONS

The Illinois Environmental Protection Agency moves that the Illinois Pollution Control Board adopt the attached regulations.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: 
Alec Messina
Director

DATED: October 2, 2017

1021 North Grand Avenue East
P. O. Box 19276
Springfield, IL 62794-9276
217/782-5544

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CONSENT TO RECEIPT OF E-MAIL SERVICE

I, the undersigned, authorize the service of documents on me by e-mail in lieu of receiving paper documents in the above-captioned proceeding. My e-mail address to receive service is as follows:

dana.vetterhoffer@illinois.gov

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Dana Vetterhoffer
Dana Vetterhoffer
Deputy General Counsel
Division of Legal Counsel

DATED: October 2, 2017

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CONSENT TO RECEIPT OF E-MAIL SERVICE

I, the undersigned, authorize the service of documents on me by e-mail in lieu of receiving paper documents in the above-captioned proceeding. My e-mail address to receive service is as follows:

gina.roccaforte@illinois.gov

Respectfully submitted,

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

By: /s/ Gina Roccaforte
Gina Roccaforte
Assistant Counsel
Division of Legal Counsel

DATED: October 2, 2017

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CERTIFICATION OF ORIGINATION

NOW COMES the Illinois Environmental Protection Agency to certify in accordance with 35 Ill. Adm. Code 102.202(i) that this proposal for amendments to 35 Ill. Adm. Code 225.233 amends the most recent version of the rules as published on the Illinois Pollution Control Board's Web site.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Gina Roccaforte
Gina Roccaforte
Assistant Counsel
Division of Legal Counsel

DATED: October 2, 2017

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MOTION FOR EXPEDITED REVIEW

NOW COMES Proponent, the Illinois Environmental Protection Agency ("Illinois EPA"), by its attorney, and pursuant to 35 Ill. Adm. Code 101.512, respectfully submits this Motion for Expedited Review ("Motion"). In support of its Motion, the Illinois EPA states as follows:

1. The Multi-Pollutant Standard ("MPS") establishes control requirements and standards for nitrogen oxide and sulfur dioxide, as well as for emissions of mercury, under 35 Ill. Adm. Code 225, Control of Emissions from Large Combustion Sources. This proposed rulemaking provides certain coal-fired electrical generating units ("EGUs") with additional flexibility in complying with the MPS.

2. In 2007 and in compliance with the MPS, Dynegy Midwest Generation, Inc., and Ameren Energy Resources filed notices of intent that such owners of eligible EGUs elected to demonstrate compliance with the MPS under Section 225.233. 35 Ill. Adm. Code 225.233(b).

3. The Dynegy MPS Group consists of Units 1, 2, and 3 at the Baldwin Energy Complex, Unit 9 at the Havana Power Station, Units 1 and 2 at the Hennepin Power Station, Units 1 and 2 at the Vermilion Power Station, and Units 4 and 5 at the Wood River Power Station (the Vermilion and Wood River Power Stations are no longer in operation).

4. The Ameren MPS Group consists of Units 1 and 2 at the Coffeen Power Station, Unit 1 at the Duck Creek Power Station, Units 1, 2, and 3 at the E.D. Edwards Power Station,

Units 5 and 6 at the Hutsonville Power Station, Units 1, 2, 3, 4, 5, and 6 at the Joppa Power Station, Units 1, 2, 3, 4, and 5 at the Meredosia Power Station, and Units 1 and 2 at the Newton Power Station (the Hutsonville and Meredosia Power Stations, in addition to E.D. Edwards Unit 1 and Newton Unit 2, are no longer in operation).

5. Because of a transaction agreement with Ameren Corporation that included significant changes in ownership of the coal-fired EGUs in Illinois, Dynegy is now the sole owner of EGUs subject to the MPS. It currently possesses EGUs in two separate MPS Groups that are subject to different MPS emission rates and is therefore unable to benefit from the fleet-wide operational flexibility originally intended by the MPS. 35 Ill. Adm. Code 225.233(e)(1) through (e)(3). The Illinois EPA's proposal amends the MPS to combine the two MPS Groups into one; the sooner these new provisions are effectuated, the sooner the operational flexibility can be utilized.

6. The MPS sets forth annual emission standards for NO_x and SO_2. *Id.* The Illinois EPA's proposal amends those annual standards beginning January 1, 2018, i.e. the beginning of the next compliance period. Ensuring this rulemaking is promulgated as expeditiously as possible would simplify compliance determinations for both the Agency and the affected sources, and would allow affected sources the maximum amount of time to plan for compliance with whichever set of standards is in place in the upcoming year.

7. In light of the foregoing, it is necessary to expedite review in this matter.

8. As required by 35 Ill. Adm. Code Section 101.512, this Motion is accompanied by an Affirmation attesting that the facts cited herein are true.

WHEREFORE, for the reasons set forth above, the Illinois EPA respectfully requests that the Board grant this Motion and expedite review in this matter and proceed to First Notice immediately.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Gina Roccaforte
Gina Roccaforte
Assistant Counsel
Division of Legal Counsel

DATED: October 2, 2017

1021 North Grand Avenue East
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AFFIRMATION

I, Gina Roccaforte, under oath, hereby state and affirm that I am an Assistant Counsel for the Illinois EPA and the facts cited in the foregoing Motion for Expedited Review are true and correct to the best of my information and belief.

Gina Roccaforte
Assistant Counsel
Division of Legal Counsel

SUBSCRIBED AND SWORN TO BEFORE ME
This 2nd day of October, 2017

Notary Public

OFFICIAL SEAL
DAWN A. HOLLIS
NOTARY PUBLIC, STATE OF ILLINOIS
MY COMMISSION EXPIRES 03-21-2021

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

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STATEMENT OF REASONS

I. INTRODUCTION

The Illinois Environmental Protection Agency ("Illinois EPA" or "Agency") submits this Statement of Reasons to the Illinois Pollution Control Board ("Board") pursuant to Sections 27 and 28 of the Environmental Protection Act ("Act") (415 ILCS 5/27 and 28) and 35 Ill. Adm. Code 102.202 in support of the attached proposal of regulations. This proposed rulemaking is intended to provide flexibility for certain electrical generating units ("EGUs") in the State in complying with the Multi-Pollutant Standards ("MPS") under 35 Ill. Adm. Code 225, Control of Emissions from Large Combustion Sources, referred to as the Illinois Mercury Rule.

II. STATEMENT OF FACTS

On December 21, 2006, the Board adopted a proposal to reduce emissions of mercury from coal-fired electrical generating units in the State. *See, In the Matter of: Proposed New 35 Ill. Adm. Code 225, Control of Emissions from Large Combustion Sources (Mercury)*, R06-25 (December 21, 2006). This proposal consisted of 35 Ill. Adm. Code 225, Control of Emissions from Large Combustion Sources, which contained Subpart A, General Provisions, and Subpart B, Control of Mercury Emissions from Coal-Fired Electric Generating Units. The rule established limitations on mercury emissions. Alternatively, sources could comply with the MPS, which provided additional time to comply with the mercury limitations in

exchange for compliance with mercury control technology requirements and emission limits for sulfur dioxide ("SO_2") and nitrogen oxides ("NO_x").

In 2007 and in compliance with the MPS, Dynegy Midwest Generation, Inc., and Ameren Energy Resources ("AER"), as authorized agent for Ameren Energy Generating Company, AmerenEnergy Resources Generating Company, and Electric Energy, Inc., (collectively "Ameren") filed notices of intent that such owners of eligible EGUs elected to demonstrate compliance with the MPS. Accordingly, the current Dynegy MPS Group consists of Units 1, 2, and 3 at the Baldwin Energy Complex ("Baldwin"); Unit 9 at the Havana Power Station ("Havana"); Units 1 and 2 at the Hennepin Power Station ("Hennepin"); Units 1 and 2 at the Vermilion Power Station; and Units 4 and 5 at the Wood River Power Station (the Vermilion and Wood River Power Stations are no longer in operation). The current Ameren MPS Group consists of Units 1 and 2 at the Coffeen Power Station ("Coffeen"); Unit 1 at the Duck Creek Power Station ("Duck Creek"); Units 1, 2, and 3 at the E.D. Edwards Power Station ("E.D. Edwards"); Units 5 and 6 at the Hutsonville Power Station; Units 1, 2, 3, 4, 5, and 6 at the Joppa Power Station ("Joppa"); Units 1, 2, 3, 4, and 5 at the Meredosia Power Station; and Units 1 and 2 at the Newton Power Station ("Newton") (the Hutsonville and Meredosia Power Stations, in addition to E.D. Edwards Unit 1 and Newton Unit 2, are no longer in operation).

In March 2014, Ameren Corporation ("Ameren Corp."), AER's parent company, announced that it was exiting the merchant generating business in Illinois. *See, Dynegy to Acquire Ameren Energy Resources, Expanding Illinois Portfolio*, (2013), http://phx.corporate-ir.net/phoenix.zhtml?c=147906&p=irol-newsArticle_Print&ID=1796097 (last visited August 23, 2017). Ameren Corp. entered into a

transaction agreement with Illinois Power Holdings, LLC, ("IPH") an indirect subsidiary of Dynegy Inc. ("Dynegy"). *Id.* IPH ultimately acquired the five active generating plants in the Ameren MPS Group (Coffeen, Duck Creek, E.D. Edwards, Joppa, and Newton). *See, Illinois Power Holdings Completes Acquisition of Ameren Energy Resources*, (2013), http://phx.corporate-ir.net/phoenix.zhtml?c=147906&p=irol-newsArticle_Print&ID=1881131 (last visited August 23, 2017). As a result of the transaction agreement with Ameren, Dynegy is currently the owner of all EGUs subject to the MPS; these EGUs, however, are in two separate MPS Groups that are subject to different MPS emission rates.

Consequently, in or around November 2016, Dynegy approached the Illinois EPA, requesting that changes be made to the MPS. Specifically, Dynegy requested that the Dynegy and Ameren MPS Groups be combined into a single MPS Group to allow the company the flexibility of using its entire fleet to meet emissions standards and to simplify compliance. Dynegy also requested that the NO_x annual, NO_x seasonal, and SO_2 annual emission rates be replaced with mass emission limits to provide the company with additional operational flexibility and economic stability. In response, the Illinois EPA developed proposed rule revisions that address Dynegy's requests while safeguarding air quality.

III. PURPOSE AND EFFECT OF THE PROPOSAL

A. MPS Revisions

As discussed above, this rulemaking proposal has been prepared to provide flexibility for certain EGUs in the State in complying with the MPS.[1] Section 225.233(e)(1) and (2), which applies to the Dynegy MPS Group, provides in pertinent part:

[1] This rulemaking is also consistent with Executive Order 2016-13, which provided for a comprehensive review of State agency administrative rules and policies to promote, among others, economic development and

e) Emission Standards for NO_x and SO_2.

1) NO_x Emission Standards.

A) Beginning in calendar year 2012 and continuing in each calendar thereafter, for the EGUs in each MPS Group, the owner and operator of the EGUs must comply with an overall NOx 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 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.

2) SO_2 Emission Standards.

* * *

B) Beginning in calendar year 2015 and continuing 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 SO_2 of 0.25 lbs/million Btu or a rate equivalent to 35 percent of the Base Rate of SO_2 emissions, whichever is more stringent.

35 Ill. Adm. Code 225.233(e)(1) and (2). However, Section 225.233(e)(3), which applies to the Ameren MPS Group, provides in pertinent part:

3) Ameren MPS Group Multi-Pollutant Standard

* * *

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.

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increased government effectiveness, while ensuring transparency and proper public input. *See, Executive Order Establishing the Illinois Competitiveness Council, Executive Order 2016-13*, (2016).

* * *

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) SO_2 Emission Standards

* * *

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 SO_2 annual emission rate of 0.23 lb /million Btu.

35 Ill. Adm. Code 225.233(e)(3). As can be seen, the EGUs in the Dynegy MPS Group and those in the Ameren MPS Group are subject to different NO_x and SO_2 emission standards under the MPS, even though all EGUs are currently under common ownership.

The Illinois EPA's proposal establishes a single MPS group consisting of all currently operational EGUs from the Dynegy and Ameren MPS Groups. The rule provides that, on and after January 1, 2018, 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 listed EGUs are transferred to a different owner, such EGU or EGUs will become a separate MPS Group on and after the date of transfer. Under the Illinois EPA's proposal, "transfer" means sale, conveyance, transfer, or other change in ownership of an EGU. No other EGUs except for those listed are subject to the requirements of Section 225.233.

This regulatory proposal also eliminates rate-based standards, and instead requires the MPS Group to comply with the following mass emissions limitations or "caps" – combined annual NO_x emissions of no more than 25,000 tons per year; combined NO_x emissions from May 1 to September 30 of each year of no more than 11,500 tons; and combined annual SO_2 emissions of no more than 55,000 tons per year. In addition to the annual SO_2 mass emissions limitation for the combined MPS Group, this proposal also provides that Joppa Units 1, 2, 3, 4, 5, and 6 must not emit combined annual SO_2 emissions in excess of 19,860 tons. This separate mass emission limit for the Joppa facility is included in the proposal to ensure the Massac County area will not become an SO_2 nonattainment area under the federal Data Requirements Rule due to Joppa's emissions, and that additional modeling to determine attainment under such Rule will not be necessary for the area. *See*, *Technical Support Document for Proposed Rule Amendments for Multi-Pollutant Standards Electrical Generating Units*, AQPSTR 17-06, September 2017 ("*Technical Support Document*"), at 6-7.

In addition to the NO_x mass emissions limitations for the combined MPS Group, this proposal requires Baldwin Units 1 and 2, Coffeen Units 1 and 2, Duck Creek Unit 1, E.D. Edwards Unit 3, and Havana Unit 9 (i.e., all EGUs currently equipped with Selective Catalytic Reduction ("SCR") to control NO_x emissions) to comply with a combined NO_x average emission rate of no more than 0.10 pound per million British thermal units ("lb/mmBtu") from May 1 to September 30. Averaging is only allowed among EGUs in the same MPS Group; for example, if two of the above EGUs are sold and become a new MPS Group, such EGUs can only average with one another in meeting the 0.10 lb/mmBtu rate. Furthermore, the proposed amendments require that these units operate each existing SCR control system on each EGU in accordance with good operating practices and at all times

when the unit it serves is in operation, provided that such operation of the SCR control system is consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for the SCR control system. Moreover, during any such period in which the SCR is not operational, the owner and operator must minimize emissions to the extent reasonably practicable. This seasonal emission rate and operational requirement ensure continuation of a high level of NO_x control by such units.

The proposal also includes provisions governing the transfer of sources with EGUs in an MPS Group to a new owner/operator. The proposed rule provides that such a transfer entails lowering the mass emissions cap for the "transferor" MPS Group, and creating a new mass emissions cap for the "transferee" MPS Group. For the MPS Group from which EGUs are transferred, the respective mass emissions limitation is adjusted by subtracting a specified allocation amount attributable to the transferred facility from the tonnage cap. Allocation amounts for NO_x annual, NO_x seasonal, and SO_2 annual emissions are set forth in the proposal for each facility, and were calculated based upon historical emissions and the level of control at each facility. For the new MPS Group consisting of the transferred EGUs, the unit allocation amount attributable to the transferred facility becomes the mass emission cap for such Group. The proposed rule provides, however, that if *all* the EGUs in the proposed combined MPS Group are transferred to the same owner on the same date, the mass emission caps are not adjusted and the allocation amounts do not apply.

As transfers may take place at any point during the annual and seasonal compliance periods set forth in the proposed rule, the Illinois EPA proposes to clarify in subsection (f)(1)(C) that 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 Section

225.233 for the entire applicable compliance period. In determining compliance, such owner and operator must include in their calculations emissions from the EGUs for the entire applicable compliance period; the prior owner and operator shall not include in their calculations emissions from the EGUs for such applicable compliance period.

For example, the proposed combined MPS Group is subject to an annual tonnage cap for NO_x emissions of 25,000 tons per year. If in March 2020, the owner of the MPS Group transfers Baldwin, which has a NO_x allocation amount of 6,000 tons per year, to a new owner, the MPS Group's annual NO_x cap of 25,000 tons per year would be reduced to 19,000 tons per year. The owner and operator of the original MPS Group would be required to comply with this adjusted limit in 2020 and would not include NO_x emissions from Baldwin EGUs (even those that occurred in January and February) in calculations determining compliance with that limit. The owner of the new MPS Group consisting of the acquired Baldwin EGUs would be subject to an annual tonnage cap for NO_x emissions of 6,000 tons per year beginning in 2020, and would be required to include Baldwin EGUs' NO_x emissions for the entire 2020 calendar year in its calculations determining compliance. The same is true as it applies to the other emissions standards. For example, as to the seasonal NO_x emission rate set forth in Section 225.233(e)(1)(E)(ii) or the seasonal NO_x emission limits set forth in subsections (e) and (f), if EGUs are transferred before or during the May 1 through September 30 time frame, the owner of the new MPS Group must include the transferred EGUs' NO_x emissions for the entire May 1 through September 30 time period in its calculations determining compliance.

The proposal also includes notification requirements in the event of the transfer of EGUs, as well as recordkeeping and reporting requirements.

B. Impact on Allowable Emissions

Currently, allowable emissions for the Dynegy MPS and Ameren MPS EGUs are not specified in the rule, but combined allowable emissions can be calculated using the currently applicable emission rates and rated capacity of each unit in the proposed combined MPS Group. Doing so arrives at a total of 32,841 tons per year for NO_x, 66,354 tons per year for SO_2, and 13,766 tons for seasonal NO_x. *See*, *Technical Support Document* at 9-11. As stated earlier, under this rulemaking, the MPS emission rates are replaced with mass emissions limitations or "caps." The proposed caps are 25,000 tons per year for NO_x, 55,000 tons per year for SO_2, and 11,500 tons for seasonal NO_x. Accordingly, this proposal results in lower allowable emissions from the EGUs comprising the MPS Group.

C. Impact on Actual Emissions

As explained in detail in the Illinois EPA's *Technical Support Document*, the impact of the Illinois EPA's proposal on actual emissions is difficult to assess. Various factors independent of the MPS impact utilization and resulting emissions of EGUs, including economic conditions, weather, and the price of natural gas. *Technical Support Document* at 11-12. So, while utilization/emissions of the EGUs in the existing MPS Groups have been lower than the Illinois EPA's proposed mass emission limits in recent years, that could potentially change if, for example, the price of natural gas rises or weather conditions cause an increased demand for electricity. This change could occur regardless of whether the EGUs are subject to the current rate-based standards or the proposed mass emission caps.

D. State Implementation Plan Revision under the Clean Air Act

The Illinois Regional Haze State Implementation Plan ("SIP") is affected by this rulemaking proposal. On June 24, 2011, the Illinois EPA submitted subsections (a), (b), (e),

and (g) of Section 225.233, among others, to USEPA for approval as part of Illinois' plan to address the visibility protection requirements of Section 169A of the Clean Air Act ("CAA"), 42 U.S.C. § 7491, and the Regional Haze Rule, as codified in 40 CFR § 51.308. *See, Approval and Promulgation of Air Quality Implementation Plans; Illinois; Regional Haze,* 77 *Fed. Reg.* 3966 (January 26, 2012). On July 6, 2012, USEPA approved the submittal as part of Illinois' Regional Haze SIP. *See, Approval and Promulgation of Air Quality Implementation Plans; Illinois; Regional Haze,* 77 *Fed. Reg.* 39943 (July 6, 2012). The Illinois EPA is, therefore, required to submit subsequent amendments to the applicable subsections of this Section to USEPA as a revision to the Regional Haze SIP. *See,* 40 CFR § 51.104. SIP revisions are required to undergo public notice and opportunity for hearing before they are submitted to USEPA for approval under 40 CFR §51.102 and Appendix V to Part 51. The Board's procedural rules provide for notice that meets this requirement, as set forth under 35 Ill. Adm. Code 102.416. To be adequate, the notice must describe the revisions, in this case the amendatory provisions to Section 225.233, and specify that the adopted rule will be submitted as a SIP revision to USEPA. Therefore, the Illinois EPA requests that the Board include the following or similar language in its notice of hearing regarding this rulemaking:

> If adopted by the Board, the Illinois EPA will submit this proposal to the United States Environmental Protection Agency ("USEPA") for review and approval as a revision to the Illinois Regional Haze State Implementation Plan ("SIP") to address the visibility protection requirements of Section 169A of the Federal Clean Air Act for Federal Class I areas. 42 U.S.C. § 7491. The revisions submitted to USEPA will include not only the amendments to current regulatory provisions under this proposal, but also the newly created provisions, as well as an analysis demonstrating that the proposal does not interfere with attainment or maintenance of any applicable National Ambient Air Quality Standard, reasonable further progress, or any other applicable requirement of the Clean Air Act ("CAA"). This notice is intended to satisfy the requirements of Section 110(l) of the CAA, 42 U.S.C. § 7410(l) (public notice for SIP revisions).

For both pollutants, NO_x and SO_2, allowable emissions from the EGUs in the MPS Group under this proposal will be less than the anticipated emissions set forth in Illinois' SIP submittals[2] under the current MPS rate-based standards. *Technical Support Document* at 18-19. The Regional Haze SIP submittals anticipated a total of 27,951 tons of annual NO_x emissions from the EGUs in both current MPS Groups. *Id.* at 19. This rulemaking proposes an annual mass emissions limitation for the EGUs in the proposed MPS Group of 25,000 tons. The Regional Haze SIP submittals anticipated a total of 55,953 tons of annual SO_2 emissions from the EGUs in both current MPS Groups. *Id.* This rulemaking proposes an annual mass emissions limitation for the proposed MPS Group of 55,000 tons. Consequently, the proposed mass emissions limitations for the EGUs in the proposed combined MPS Group are sufficient to limit both pollutants to less than what was determined to be necessary to achieve the visibility improvement goals discussed in the Regional Haze SIP submittals.[3] *Id.*

USEPA, Region V, has reviewed the Illinois EPA's proposal and indicated that it is likely approvable as a revision to Illinois' Regional Haze SIP.

IV. GEOGRAPHIC REGIONS AND SOURCES AFFECTED

The proposed regulations affect the following EGUs currently under Dynegy ownership: Units 1, 2, and 3 at Baldwin in Randolph County; Units 1 and 2 at Coffeen in

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[2] These submittals consist of Illinois' original Regional Haze SIP Submittal, and *Illinois' Five-Year Progress Report for Regional Haze State Implementation Plan*, AQPSTR 16-11, October 2016, submitted to USEPA on February 2, 2017.

[3] The anticipated emission reductions that were expected due to the MPS, and used for the purposes of the Regional Haze Rule, were based on a 2002 base year. *Technical Support Document* at 19. The EGUs in the MPS Groups are not currently prohibited from emitting more than was anticipated in the Regional Haze SIP submittals. *Id.* Therefore, increases in utilization of the affected units could have previously, or could still in the absence of the mass-based emission limits proposed in this rulemaking, result in emissions greater than those that were anticipated in the Regional Haze SIP submittals. *Id.*

Montgomery County; Unit 1 at Duck Creek in Fulton County; Units 2 and 3 at E.D. Edwards in Peoria County; Unit 9 at Havana in Mason County; Units 1 and 2 at Hennepin in Putnam County; Units 1, 2, 3, 4, 5, and 6 at Joppa in Massac County; and Unit 1 at Newton in Jasper County. These EGUs are located in Central and Southern Illinois.

V. TECHNICAL FEASIBILITY AND ECONOMIC REASONABLENESS

The Illinois EPA's analysis, explained in the *Technical Support Document*, demonstrates the technical feasibility and economic reasonableness of this proposed rulemaking. The amendments to Section 225.233 were requested by Dynegy, the only source impacted by such revisions.

VI. COMMUNICATION WITH INTERESTED PARTIES

The Illinois EPA engaged in outreach on this proposal. On July 27, 2017, the Illinois EPA provided a draft of the proposed amendments to Section 225.233 to various stakeholders, environmental groups, the Office of the Attorney General, and Region V of USEPA, soliciting comments on the proposal. On August 9, 2017, representatives of the Illinois EPA met with representatives of approximately 12 environmental and community groups and answered questions regarding the proposal and its impact on air quality, shared technical information, and were available to respond to any other inquiries regarding the rulemaking. The Illinois EPA also participated in conference calls with other stakeholders, including the Office of the Attorney General.

The Illinois EPA received several comments on the draft rule language and considered such comments. These regulations are being proposed after the interested parties have had an opportunity to review the proposal and discuss any issues with the Illinois EPA.

VII. SYNOPSIS OF TESTIMONY

The Illinois EPA anticipates calling Rory Davis, Environmental Protection Engineer, Air Quality Planning Section ("AQPS"), Illinois EPA's Bureau of Air ("BOA"), as a witness at hearing. Mr. Davis will testify regarding the amendments proposed by the Illinois EPA. Written testimony will be submitted prior to hearing in accordance with the Board's procedural rules. Mr. Davis will be available for questions, as will David Bloomberg, Manager, AQPS, BOA.

VIII. THE ILLINOIS EPA'S PROPOSAL

The following is a Section-by-Section summary of the Illinois EPA's proposal.

35 Ill. Adm. Code 225

Subpart B: Control of Mercury Emissions from Coal-Fired Electric Generating Units

Section 225.233 Multi-Pollutant Standards (MPS)

The Illinois EPA proposes to amend Section 225.233 by adding subsection (a)(4) to provide that, notwithstanding any contrary provision in subsection (a), on and after January 1, 2018, 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 no other EGUs except for those listed are subject to the requirements of this Section.

The Illinois EPA also proposes to amend subsection (e)(1)(A) and (B) to provide that the rate-based NO_x emission limits continue through calendar year 2017, and to add

subsection (e)(1)(C) to provide that except as otherwise provided in subsection (f) (governing the transfer of EGUs), 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. In addition, the Illinois EPA proposes to add subsection (e)(1)(D) to provide that except as otherwise provided in subsection (f), 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. Furthermore, the Illinois EPA proposes to add subsection (e)(1)(E) to provide that on and after January 1, 2018, the owner and operator of any 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) comply with a combined NO_x average emission rate of no more than 0.10 lb/mmBtu from May 1 to September 30, where averaging is only allowed among EGUs in the same MPS Group, and (ii) operate each existing SCR control system on each EGU in accordance with good operating practices and at all times when the unit it serves is in operation, provided that such operation of the SCR control system is consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for the SCR control system. During any such period in which the SCR is not operational, the owner and operator must minimize emissions to the extent reasonably practicable. All NO_x emissions from each EGU, regardless of whether the SCR is operational or non-operational, must be included in determining compliance with the emission standards set forth under subsections (e)(1)(C), (e)(1)(D), and (f)(1), as applicable.

The Illinois EPA also proposes to amend subsection (e)(2)(B) by providing that the rate-based SO_2 emission limits continue through calendar year 2017, and to add subsection (e)(2)(C) to provide that except as otherwise provided in subsection (f), 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 SO_2 emissions in excess of 55,000 tons from all EGUs. Moreover, under new subsection (e)(2)(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 SO_2 emissions in excess of 19,860 tons from such EGUs.

The Illinois EPA proposes to delete subsection (e)(3) in its entirety because it contains the provisions relating to the Ameren MPS Group Multi-Pollutant Standard, which is being subsumed by this proposal. Subsection (e)(4) is also being deleted and replaced by the proposed provisions under subsection (i).

The Illinois EPA proposes to add subsection (f) governing the transfer of EGUs in an MPS Group. In the case of a transfer, 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), 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) that are attributable to the transferred EGUs.

For a new MPS Group consisting of the acquired EGUs, 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, combined seasonal NO_x emissions, and combined annual

SO_2 emissions in excess of the applicable annual NO_x, seasonal NO_x, and annual SO_2 limitation from all EGUs. The applicable annual NO_x, seasonal NO_x, and annual SO_2 limitation shall be the sum of the allocation amounts attributable to all EGUs in the MPS Group set forth in Columns A, B, and C, respectively, of subsection (f)(2).

Furthermore, notwithstanding subsections (f)(1)(B)(i) through (iii), if all the EGUs set forth under subsection (a)(4)(A) are transferred to the same owner on the same date, the owner and operator of the EGUs in the new MPS Group must comply with the emission limitations under subsection (e); the allocation amounts in subsection (f)(2) shall not apply.

Additionally, subsection (f)(1)(C) provides that the owner and operator of the EGUs as of the last day of the applicable compliance period must demonstrate compliance with the emission standards for the entire applicable compliance period. In determining compliance, such owner and operator must include in their calculations emissions from the EGUs for the entire applicable compliance period; the prior owner and operator shall not include in their calculations emissions from the EGUs for such applicable compliance period. Subsection (f)(1)(D) provides that nothing in this subsection shall be construed to relieve owners and operators of EGUs in an MPS Group from any of the other requirements set forth in this Section, including the mercury standards under subsection (d). The Illinois EPA also proposes to include notification of transfer requirements for both the transferring and acquiring owners under subsection (f).

The Illinois EPA proposes to delete subsection (g). Since this provision only applied during the first year of the MPS, it is now obsolete. The Illinois EPA is also proposing to add subsections (h) and (i) to address recordkeeping and reporting requirements. Under subsection (h), on and after January 1, 2018, the owner and operator of the EGUs in an MPS

Group must keep and maintain all records necessary to demonstrate compliance with this Section, including but not limited to (i) all emissions monitoring information gathered in accordance with 40 CFR 75, and (ii) copies of all reports and compliance certifications required under subsection (i). 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 Illinois EPA within 30 days after receipt of a written request by the Illinois EPA.

Under subsection (i), prior to January 1, 2018, compliance with the NO_x and SO_2 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 Illinois EPA. 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 under subsection (i)(2)(A) and (B), which includes the submission of compliance reports and certifications.

The Illinois EPA proposes to add the requirement under subsection (i)(3) that for each EGU in an MPS Group, the owner or operator must notify the Illinois EPA of deviations from any of the requirements of this Section within 30 days after discovery of the deviations. At a minimum, these notifications must include a description of such deviations, a discussion of the possible cause of such deviations, and a description of any corrective actions and preventative measures taken.

Furthermore, the Illinois EPA proposes to add a notification requirement under subsection (i)(4) that within 30 days of the beginning of a period during which the SCR

control system on any of Baldwin Unit 1, Baldwin Unit 2, Coffeen Unit 1, Coffeen Unit 2, Duck Creek Unit 1, E.D. Edwards Unit 3, or Havana Unit 9 is not operated when the EGU it serves is in operation, the owner and operator must notify the Agency's Bureau of Air, Compliance Section, in writing. This notification must include, at a minimum, a description of why the SCR control system was not operated, the time frames during which the SCR control system was not operated, and the steps taken to minimize emissions during those time frames.

IX. CONCLUSION

For the reasons stated above, the Illinois EPA hereby submits this regulatory proposal and requests the Board to adopt these rules for the State of Illinois.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Gina Roccaforte
Gina Roccaforte
Assistant Counsel
Division of Legal Counsel

DATED: October 2, 2017

1021 N. Grand Ave. East
P.O. Box 19276
Springfield, IL 62794-9276
(217) 782-5544

POLLUTION CONTROL BOARD

NOTICE OF PROPOSED AMENDMENTS

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
225.263 Monitoring of Gross Electrical Output
225.265 Coal Analysis for Input Mercury Levels

SUBPART E: CAIR NO_x OZONE SEASON TRADING PROGRAM

SUBPART F: COMBINED POLLUTANT STANDARDS

225.630 Permanent Shut-Downs (Repealed)
225.635 Requirements for CAIR SO_2, 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 R18-__ 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 SO_2, 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 SO_2 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 SO_2 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 SO_2.

1) NO_x Emission Standards.

A) Beginning in calendar year 2012 and continuing <u>through calendar year 2017</u>~~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 any 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 comply with the following:

i) Operate each existing SCR control system on each EGU in accordance with good operating practices and at all times when the unit it serves is in operation, provided that such operation of the SCR control system is consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for the SCR control system. During any such period in which the SCR is not operational, the owner and operator must minimize emissions to the extent reasonably practicable. All NO_x emissions from each EGU, regardless of whether the SCR is operational or non-operational, must be included in determining compliance with the emission standards set

forth under subsections (e)(1)(C), (e)(1)(D), and (f)(1) of this Section, as applicable.

ii) From May 1 to September 30, comply with a combined NO_x average emission rate of no more than 0.10 lb/mmBtu. Averaging is only allowed among EGUs in the same MPS Group.

2) SO_2 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 SO_2 annual emission rate of 0.33 lb/million Btu or a rate equivalent to 44 percent of the Base Rate of SO_2 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 Group~~ing~~, the owner and operator of the EGUs must comply with an overall annual emission rate for SO_2 of 0.25 lbs/million Btu or a rate equivalent to 35 percent of the Base Rate of SO_2 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 SO_2 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 SO_2 emissions in excess of 19,860 tons from such EGUs.

~~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) SO_2 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 SO_2 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 SO_2 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 SO_2 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 SO_2 annual emission rate of 0.23 lb /million Btu.~~

~~4) Compliance with the NO_x and SO_2 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.~~

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 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.

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 SO_2 emissions in excess of the applicable annual SO_2 limitation from all EGUs. The applicable annual SO_2 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.

iv) Notwithstanding subsections (f)(1)(B)(i) through (iii) above, if all the EGUs set forth under subsection (a)(4)(A) of this Section are transferred to the same owner on the same date, the owner and operator of the EGUs in the new MPS Group must comply with the emission limitations under subsection (e) of this Section; the allocation amounts in subsection (f)(2) of this Section shall not apply.

C) 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. In determining compliance, such owner and operator must include in their calculations emissions from the EGUs for the entire applicable compliance period; the prior owner and operator shall not include in their calculations emissions from the EGUs for such applicable compliance period.

D) Nothing in this subsection (f) shall be construed to relieve owners and operators of EGUs in an MPS Group from any of the other requirements set forth in this Section, including the mercury standards under subsection (d) of this Section.

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

		Column A. NO_x Allocation Amount (TPY) in the Event of Transfer	Column B. NO_x Allocation Amount (May 1 - Sept 30 Tons) in the Event of Transfer	Column C. SO_2 Allocation Amount (TPY) in the Event of Transfer
A)	Baldwin	6,000	2,700	6,000
B)	Havana	1,800	810	1,500
C)	Hennepin	1,500	675	6,000
D)	Coffeen	2,000	900	250
E)	Duck Creek	1,400	630	250
F)	Edwards	3,000	1,350	10,000
G)	Joppa	5,200	2,340	18,000
H)	Newton	2,700	1,215	10,000

3) 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 SO_2 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 SO_2 emissions limitation that are applicable to the acquiring owner and operator's MPS Group; and

v) Date of transfer.

~~g~~f) Requirements for NO_x and SO_2 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 SO_2 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 (g‡) 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 SO_2 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 (g‡), NO_x and SO_2 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 SO_2 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 (g~~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 SO_2.~~

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 necessary 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 and compliance certifications required under subsection (i) of this Section.

i) Reporting.

1) Prior to January 1, 2018, compliance with the NO_x and SO_2 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 annual 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 SO_2, expressed in tons, for all Joppa EGUs.

iv) A statement indicating whether each existing SCR control system on Baldwin Units 1 and 2, Coffeen Units 1 and 2, Duck Creek Unit 1, E.D. Edwards Unit 3, and Havana Unit 9 was operated in accordance with good operating practices and at all times when the unit it serves was in operation, consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for the SCR control system.

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 seasonal 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, as applicable.

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, as applicable under subsection (e)(1)(E)(ii) of this Section.

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 notify the Agency of deviations from any of the requirements of this Section within 30 days after discovery of the deviations. At a minimum, these notifications must include a description of such deviations, a discussion of the possible cause of such deviations, and a description of any corrective actions and preventative measures taken.

4) Within 30 days of the beginning of a period during which the SCR control system on any of Baldwin Unit 1, Baldwin Unit 2, Coffeen Unit 1, Coffeen Unit 2, Duck Creek Unit 1, E.D. Edwards Unit 3, or Havana Unit 9 is not operated when the EGU it serves is in operation, the owner and operator must notify the Agency's Bureau of Air, Compliance Section, in writing. This notification must include, at a minimum, a description of why the SCR control system was not operated, the time frames during

which the SCR control system was not operated, and the steps taken to minimize emissions during those time frames.

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

TECHNICAL SUPPORT DOCUMENT

for

PROPOSED RULE AMENDMENTS FOR MULTI-POLLUTANT STANDARDS ELECTRICAL GENERATION UNITS

AQPSTR 17-06

September 2017

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
1021 NORTH GRAND AVENUE EAST
P.O. BOX 19276
SPRINGFIELD, IL 62794-9276

Table of Contents

List of Tables

List of Acronyms

Agency	Illinois Environmental Protection Agency
CAA	Clean Air Act
CAAPP	Clean Air Act Permit Program
EGU	electrical generation unit
Illinois EPA	Illinois Environmental Protection Agency
IPCB	Illinois Pollution Control Board
IPH	Illinois Power Holdings, LLC
MISO	Midcontinent Independent System Operator
mmBtu	million British thermal units
MPS	Multi-Pollutant Standards
NAAQS	National Ambient Air Quality Standard
NO_x	nitrogen oxides
RFP	Reasonable Further Progress
SIP	State Implementation Plan
SO_2	sulfur dioxide
TPY	tons per year
USEPA	United State Environmental Protection Agency
35 IAC	Title 35 of the Illinois Administrative Code

1.0 Executive Summary

The Illinois Environmental Protection Agency ("Illinois EPA" or "Agency") is proposing amendments to Title 35 of the Illinois Administrative Code ("35 IAC") to amend Part 225 to modify emission limits for electrical generating units ("EGUs") that are regulated by the Multi-Pollutant Standards ("MPS").

The affected units are currently subject to fleet-wide emission rates for nitrogen oxides ("NO_x") and sulfur dioxide ("SO_2") in Section 225.233(e). These fleet-wide emission rates apply to two groups of EGUs: 10 units owned and operated by Dynegy Midwest Generation at the time of the adoption of the MPS in Part 225, and 21 units that were owned and operated by Ameren Energy Resources ("Ameren") at that time. Of those 31 MPS units, 18 are still operating, and all of them are currently owned and operated by Dynegy Inc. ("Dynegy") or its subsidiary.

The proposed amendments combine the two MPS groups and provide emission limits for NO_x and SO_2 in terms of mass emissions that would apply to a combined group consisting of all MPS units still in operation. These mass emission limits would reduce allowable mass emissions for the new combined group while also providing operational flexibility to the operator.

Additionally, the Agency, in the proposed amendments, has included provisions that ensure that the modified emission limits do not interfere with attainment or maintenance of any National Ambient Air Quality Standards ("NAAQS"), and do not interfere with reasonable further progress ("RFP") toward attainment of any NAAQS or any other applicable requirement of the Clean Air Act ("CAA"). These provisions include a separate annual mass emission cap for SO_2 at the Joppa facility, and additional rate-based limits for NO_x during the Ozone Season for specified units.

The purpose of this document is to provide technical support for the rulemaking, to provide a more detailed explanation of the proposed amendments and their impacts, and to demonstrate that the proposed amendments are consistent with the requirements of Section 110(l) of the CAA.

The proposed amendments are technically feasible and economically reasonable for the affected sources. The proposed amendments are also likely approvable as a revision to Illinois' State Implementation Plan ("SIP") with regard to the Regional Haze Rule and in accordance with Section 110(l) of the CAA.

2.0 Introduction

The MPS, found in 35 IAC Part 225, Control of Emissions from Large Combustion Sources, was adopted December 21, 2006 (IPCB R2006-025). Part 225 was intended to reduce mercury emissions from coal-fired EGUs. Section 225.233, containing the MPS, was included as an alternative compliance option, and delayed the effective date of more stringent mercury standards in exchange for emission reductions of NO_x and SO_2 at the MPS units. Since the MPS regulations were promulgated, pollution control equipment has been installed on a number of EGUs, while others have ceased operation, in the Dynegy and Ameren MPS groups. The current MPS rule does not specifically require installation of any additional pollution control equipment.

The MPS was amended in 2009 to include Section 225.233(e)(3), containing specific MPS provisions for units owned and operated by Ameren. These amendments were made during a rulemaking to address mercury monitoring requirements (IPCB R2009-010), and were adopted July 15, 2009. There are currently two MPS groups in Illinois: The Dynegy MPS Group that is required to comply with NO_x and SO_2 emission standards in Section 225.233(e)(1) and (2), and the Ameren MPS Group that is required to comply with NO_x and SO_2 emission standards in Section 225.233(e)(3).

2.1 MPS NO_x Emission Rates

The MPS for the Dynegy MPS Group requires those units to meet a fleet-wide annual NO_x emission rate of 0.11 lb/mmBtu, or a rate equivalent to 52 percent of the group's Base Annual Rate, whichever is more stringent. The MPS also requires the Dynegy MPS Group to meet a fleet-wide Ozone Season NO_x emission rate of 0.11 lb/mmBtu, or an emission rate equivalent to 80 percent of the Base Seasonal Rate, whichever is more stringent. For both the annual and seasonal requirements, the Dynegy MPS Group is required to meet fleet-wide NO_x emission rates of 0.10 lb/mmBtu, based on the greater stringency of a limit calculated from those units' Base Annual and Base Ozone Season NO_x Rates. These rates were effective beginning in the 2012 calendar year and the 2012 Ozone Season respectively.

Units belonging to the Ameren MPS Group were required to meet a fleet-wide Ozone Season NO_x emission rate of 0.11 lb/mmBtu beginning in 2010. Units in the Ameren MPS Group were also required to meet an annual NO_x emission rate of 0.14 lb/mmBtu in 2010 and 2011, and were required to begin meeting an annual NO_x emission rate of 0.11 lb/mmBtu beginning in 2012.

2.2 MPS SO_2 Emission Rates

The Dynegy MPS Group units were required to meet a fleet-wide annual SO_2 emission rate of 0.33 lb/mmBtu or a rate equivalent to 44 percent of the Base Rate of SO_2 emissions, whichever was more stringent, in the 2013 and 2014 calendar years. Beginning in the 2015 calendar year the Dynegy MPS Group was required to meet a fleet-wide annual SO_2 emission rate of 0.25 lb/mmBtu or a rate equivalent to 35 percent of the Base Rate of SO_2 emissions, whichever was more stringent. The Dynegy MPS Group is currently required to meet a fleet-wide SO_2 emission rate of 0.19 lb/mmBtu based on the greater stringency of a limit calculated from those units' Base Rate of SO_2 emissions. This is the final rate for the Dynegy MPS Group and is effective for all future years.

The Ameren MPS Group units were required to meet a fleet-wide annual SO_2 emission rate of 0.50 lb/mmBtu beginning in 2010 and through calendar year 2013. The Ameren MPS Group units were required to meet a fleet-wide annual SO_2 emission rate of 0.43 lb/mmBtu in calendar year 2014, and 0.25 lb/mmBtu in calendar years 2015 and 2016. Beginning in calendar year 2017, the Ameren MPS Group was required to meet a fleet-wide SO_2 emission rate of 0.23 lb/mmBtu. While the Ameren MPS Group has had variances granted by the Illinois Pollution Control Board ("IPCB") adjusting the MPS SO_2 provisions, there are currently no variances still in effect with regard to the MPS, and the fleet-wide SO_2 emission rate is effective for 2017 and future years.

2.3 MPS Group Ownership

In 2013, the operating units in the Ameren MPS Group were purchased by Illinois Power Holdings, LLC ("IPH"), a wholly owned, indirect subsidiary of Dynegy. The purchased EGUs were the Coffeen, Duck Creek, E.D. Edwards, Joppa, and Newton facilities. Control of the Meredosia and Hutsonville facilities was transferred to AmerenEnergy Medina Valley Cogen LLC. The permits to operate those two sources have been withdrawn.

The remaining operating units in the Ameren MPS Group are Coffeen Units 1 and 2; Duck Creek Unit 1; E.D. Edwards Units 2 and 3; Joppa Units 1, 2, 3, 4, 5, and 6; and Newton Unit 1. These units are all currently owned by Dynegy's subsidiary, IPH.

The remaining operating units in the Dynegy MPS Group are Baldwin Units 1, 2, and 3; Havana Unit 9; and Hennepin Units 1 and 2. The permits to operate the sources at Vermillion and Wood River have been withdrawn.

All permitted and operating units in the Dynegy MPS Group and the Ameren MPS Group are owned and operated by Dynegy or its subsidiary IPH.

2.4 Basis for Rulemaking

In late 2016, Dynegy requested that the Illinois EPA consider modifying the MPS to combine the Dynegy and Ameren MPS Groups into a single MPS Group, and to consider limiting emissions of a new combined group in terms of mass emissions, rather than in terms of emission rates.

Dynegy requested combining the two MPS Groups because all the units in both groups are owned by the company. This combination would reduce administrative and compliance issues associated with operating the two groups as separate concerns with regard to the MPS.

Dynegy requested mass based limits for the combined group to provide the company with operational flexibility. Dynegy informed the Agency that in recent years the structure of the current 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. Dynegy also suggested that a mass-based limit for a new combined MPS Group could be used to reduce allowable emissions of NO_x and SO_2 from the group as a whole.

The proposed modification of the MPS rule is intended to address these requests while continuing to maintain air quality. While the EGUs affected by this rulemaking are currently meeting their fleet-wide average emission rates, the combination of these MPS Groups under the proposed mass emission limits will allow greater operational flexibility as well as regulatory certainty moving forward as scenarios involving the individual sources may arise.

3.0 Proposed Amendments

3.1 Combination of MPS Groups

Illinois EPA is proposing amendments to Section 225.233(a)(4)(A) to identify the specific units that will constitute the combined MPS Group. The EGUs to be included in the combined MPS Group are:

- 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.

3.2 Mass Emission Limits for Combined MPS Group

Illinois EPA is proposing amendments to Section 225.233(e) to remove or "sunset" language related to the emission rate standards for each MPS group, and to insert language limiting the combined MPS Group to mass emission limits for the entire Group.

The proposed annual SO_2 mass emission limit for the combined MPS Group is 55,000 tons for all units in the Group.

The proposed annual NO_x mass emission limit for the combined MPS Group is 25,000 tons for all units in the Group. The proposed Ozone Season NO_x mass emission limit for the combined MPS Group is 11,500 tons for all units in the Group. It should be noted that the term "Ozone Season" here applies to the time period from May 1 to September 30. While the length of the Ozone Season can vary for different areas, previous and current federal trading programs for NO_x (such as the Clean Air Interstate Rule and the Cross-State Air Pollution Rule) have defined this period as the Ozone Season for the purposes of source compliance. For the purposes of the rule amendments and for this document, this is the period that is referred to as the Ozone Season.

3.3 Additional SO_2 Limits

In addition to the SO_2 mass emission limit for the combined MPS Group, Illinois EPA proposes limiting combined SO_2 emissions from all units at Joppa (1, 2, 3, 4, 5, and 6) to 19,860 tons annually. This separate mass emission limit for the Joppa facility is included in the proposed amendments to ensure that the area around the source would not be at risk of becoming a nonattainment area for the SO_2 NAAQS. The area around the Joppa source was previously modeled, based on actual emissions

for the years 2012 to 2014, and modeled SO_2 concentrations in the area were at approximately 85 percent of the standard. In the final *Data Requirements Rule for the 2010 1-Hour Sulfur Dioxide (SO2) Primary National Ambient Air Quality Standard (NAAQS)* (80 Fed. Reg. 51052), the federal rule that required the 2012 to 2014 modeling, USEPA gave general guidelines for when additional modeling may be necessary:

> *EPA recommends as a general guideline that the air agency should conduct additional modeling (using the most recent actual emissions as inputs) for an area if (1) the original modeling level was equal to or greater than 90 percent of the standard, and there is any increase in emissions in the area; or (2) if the original modeling level was between 50 percent and 90 percent of the standard, and emissions in the area increased by 15 percent or more.*

The additional separate mass emission limit for the Joppa units ensures that the area will not become an SO_2 nonattainment area under the Data Requirements Rule due to Joppa's emissions, and that additional modeling to determine attainment will not be necessary for the area.

3.4 Additional NO_x Limits

In addition to the NO_x mass emission limit for the combined MPS Group, Illinois EPA proposes a rate-based standard during the Ozone Season for those units in the combined MPS Group that are currently equipped with Selective Catalytic Reduction ("SCR") to control emissions of NO_x. The proposed NO_x Ozone Season average emission rate is 0.10 lb/mmBtu for the following units:

- Baldwin Units 1 and 2;
- Coffeen Units 1 and 2;
- Duck Creek Unit 1;
- E.D. Edwards Unit 3; and
- Havana Unit 9.

Additionally, the proposed Section 225.233(e)(1)(E)(i), requires that these controls will continue to be operated in accordance with good operating practices and at all times when the unit it serves is in operation, provided that such operation of the SCR control system is consistent with the technological limitations, manufacturers' specifications, and good engineering and maintenance practices for the SCR control system. This requirement is above and beyond the NO_x mass emissions limits previously discussed.

3.5 MPS Groups in the Event of an EGU Ownership Transfer

The proposed amendments to Section 225.233(f) were included to detail the requirements in the event of a transfer of ownership of one or more sources with EGUs in the proposed combined MPS Group. In such a situation, the EGUs at the source or sources being transferred would be removed from the combined MPS Group, and the Group's mass emission limit for SO_2, NO_x, and Ozone Season NO_x would be reduced by values corresponding to the unit or units as set forth in Section 225.233(f)(2).

In the event of a transfer of ownership of one or more sources with EGUs in the proposed combined MPS Group, the EGUs at the transferred source or sources become a new MPS Group. The new MPS

Group is then required to meet mass emission limits for SO_2, NO_x, and Ozone Season NO_x equal to the sum of the values corresponding to the source or sources in Section 225.233(f)(2).

The values in Section 225.233(f)(2) are based upon the historical emissions from the pertinent Dynegy sources and the control equipment currently installed at each source. These values allow for transferred sources to operate under new ownership at emission levels consistent with operation in prior years and in their current configurations.

4.0 Technical Feasibility and Economic Reasonableness

The proposed amendments are both technically feasible and economically reasonable. The owner/operator of the affected sources has agreed that the emission limits contained in the proposed amendments are achievable. The proposed amendments are likewise economically reasonable, as they have been proposed to provide operational flexibility to the affected sources, and will not cause adverse economic impact.

5.0 Environmental Impact

Determining precise estimates for the environmental impact of the proposed amendments, in terms of actual emissions from the affected sources, is problematic as a number of factors independent of the MPS can impact actual emissions, as discussed below. The proposed amendments replace fleet-wide rate-based standards in the MPS with fleet-wide mass emission limits. This change in the method of measurement of emissions for compliance will result in lower allowable emissions from the operating units that comprise the proposed combined MPS Group. It should also be noted that nothing in the proposed amendments relieves the affected sources from obligations to comply with the federal Cross State Air Pollution Rule or the unit- and source-specific SO_2 limits found in 35 IAC Part 214.

5.1 Allowable Emissions Under the Current and Proposed MPS

Table 1 shows allowable emissions under the current MPS rate-based standards for SO_2. Table 2 shows allowable emissions under the current MPS rate-based standards for NO_x. Table 3 shows allowable emissions under the current MPS rate-based standards for NO_x during the Ozone Season. These allowable emissions have been calculated using the rated capacity of each of the units that will operate in the proposed combined MPS Group and the emission rate that applies to each such unit currently under the MPS.

Table 1. Allowable SO_2 Emissions Under Current MPS

Plant	Unit	Nominal Capacity (mmBtu/hr)	MPS Rate (lb/mmBtu)	Allowable Emissions (TPY)
Baldwin	1	6,439	0.19	5,359
Baldwin	2	5,985	0.19	4,981
Baldwin	3	6,400	0.19	5,326
Havana	9	5,518	0.19	4,592
Hennepin	1	802	0.19	667
Hennepin	2	2,518	0.19	2,095
Coffeen	1	3,282	0.23	3,306
Coffeen	2	5,544	0.23	5,585
Duck Creek	1	5,025	0.23	5,062
E D Edwards	2	3,321	0.23	3,346
E D Edwards	3	4,594	0.23	4,628
Joppa	1	2,300	0.23	2,317
Joppa	2	2,300	0.23	2,317
Joppa	3	2,300	0.23	2,317
Joppa	4	2,300	0.23	2,317
Joppa	5	2,300	0.23	2,317
Joppa	6	2,300	0.23	2,317
Newton	1	7,449	0.23	7,504
Total				**66,354**

Table 2. Allowable NO_x Emissions Under Current MPS

Plant	Unit	Nominal Capacity (mmBtu/hr)	MPS Rate (lb/mmBtu)	Allowable Emissions (TPY)
Baldwin	1	6,439	0.1	2,820
Baldwin	2	5,985	0.1	2,621
Baldwin	3	6,400	0.1	2,803
Havana	9	5,518	0.1	2,417
Hennepin	1	802	0.1	351
Hennepin	2	2,518	0.1	1,103
Coffeen	1	3,282	0.11	1,581
Coffeen	2	5,544	0.11	2,671
Duck Creek	1	5,025	0.11	2,421
E D Edwards	2	3,321	0.11	1,600
E D Edwards	3	4,594	0.11	2,213
Joppa	1	2,300	0.11	1,108
Joppa	2	2,300	0.11	1,108
Joppa	3	2,300	0.11	1,108
Joppa	4	2,300	0.11	1,108
Joppa	5	2,300	0.11	1,108
Joppa	6	2,300	0.11	1,108
Newton	1	7,449	0.11	3,589
Total				**32,841**

Table 3. Allowable Ozone Season NO_x Emissions Under Current MPS

Plant	Unit	Nominal Capacity (mmBtu/hr)	MPS Rate	Allowable Emissions (TPY)
Baldwin	1	6,439	0.1	1,182
Baldwin	2	5,985	0.1	1,099
Baldwin	3	6400	0.1	1,175
Havana	9	5,518	0.1	1,013
Hennepin	1	802	0.1	147
Hennepin	2	2,518	0.1	462
Coffeen	1	3,282	0.11	663
Coffeen	2	5,544	0.11	1,120
Duck Creek	1	5,025	0.11	1,015
E D Edwards	2	3,321	0.11	671
E D Edwards	3	4,594	0.11	928
Joppa	1	2,300	0.11	465
Joppa	2	2,300	0.11	465
Joppa	3	2,300	0.11	465
Joppa	4	2,300	0.11	465
Joppa	5	2,300	0.11	465
Joppa	6	2,300	0.11	465
Newton	1	7,449	0.11	1,504
Total				**13,766**

The proposed amendments would limit the combined MPS Group to 55,000 tons of SO_2 annually rather than the calculated 66,354 tons of allowable annual emissions under the current MPS. The proposed amendments would also limit the combined MPS Group to 25,000 tons of NO_x annually rather than the calculated 32,841 tons of allowable annual emissions under the current MPS. Finally, the proposed amendments would limit the combined MPS Group to 11,500 tons of NO_x during the Ozone Season rather than the calculated 13,766 tons of allowable annual emissions under the current MPS. Note that these comparisons only consider the units that will be in the new proposed MPS Group, rather than including all units that were part of both existing MPS Groups but have subsequently ceased operation.

5.2 Factors Impacting EGU Emissions

As previously stated, determining precise estimates for the environmental impact of the proposed amendments, in terms of actual emissions from the affected sources, is problematic due to several factors. Among the factors that can impact the utilization and emissions from EGUs are the weather throughout the year, fuel prices for coal and natural gas, and the general strength of the economy over a given period.

While utilization and emissions of the affected sources have been lower than the proposed mass emission limits for NO_x and SO_2 in recent years, it is necessary for the proposed regulation to allow for necessary utilization in various scenarios involving weather and economic conditions while also having a mass emission limit that is lower than current calculated allowable emissions.

A major factor in the lower utilization of coal-fired EGUs in the most recent years is the historically low price for natural gas. Electricity is dispatched to the power grid by the Midcontinent Independent System Operator ("MISO") on a lowest-cost basis. Operators must bid a price for electricity from a given EGU, and the unit is then dispatched by MISO after lower-cost units, and before higher-cost units. Due to the low cost of natural gas in recent years, much more electricity from gas-fired EGUs has been dispatched ahead of coal-fired units. In a potential future scenario where the price of natural gas increases to nearer the historical norms, utilization and emissions from other EGUs would also increase.

The general strength of the economy in the region is also a factor that can affect utilization and emissions from coal-fired EGUs. In addition to fuel cost impacting which EGUs are dispatched, demand for electricity also affects utilization and emissions from EGUs. When there is greater general demand for electricity, more units are dispatched on the lowest-cost basis. During periods of high demand, higher-cost units are dispatched, and utilization and emissions across the region increase. Recent years have seen weaker demand for electricity due to energy efficiency measures and a weaker economy. Additionally, because there have been a number of coal-fired units retired in recent years, a high demand year may result in greater utilization rates on a unit-basis from the remaining operating units. In a scenario involving robust economic growth and activity, utilization and emissions from EGUs would also increase.

The greatest and most unpredictable factor that affects utilization and emissions from EGUs is the weather. Demand for electricity is significantly higher during years with hotter summers and colder winters relative to historical averages. In recent years, the Midwest has experienced relatively mild summers and winters. However, in a scenario involving a relatively hot summer, a relatively cold winter, or both, utilization and emissions from EGUs would increase.

Due to the above factors impacting EGU utilization, Illinois EPA has proposed mass emission limits for the proposed combined MPS Group that are lower than calculated allowable emission limits from the current rate-based limits, but which allow for emissions that could occur from greater utilization of the affected units.

5.3 Historical Emissions of the Affected Units

Tables 4, 5, and 6 show, respectively, the historical heat input, NO_x emissions, and SO_2 emissions of the affected units that would become the combined MPS Group under the proposed amendments. The historical heat input demonstrates that the utilization from these units has been relatively low in more recent years, which is reflected in lower emissions of NO_x and SO_2 in those years. However, this utilization could change in the future due to the factors discussed above.

Table 4. Historical Heat Input of the Affected Units

Plant	2010	2011	2012	2013	2014	2015	2016
Baldwin	42,860,896	37,783,602	43,725,328	39,629,830	32,456,229	37,866,256	32,659,083
Baldwin	46,480,909	45,092,055	38,467,310	46,281,964	42,613,958	28,230,422	38,830,110
Baldwin	34,012,081	50,791,868	48,467,691	41,921,039	44,089,201	42,135,390	30,643,341
Havana	35,225,775	36,833,553	32,957,602	34,312,338	31,583,549	23,344,525	30,279,146
Hennepin	5,916,688	5,907,566	5,255,799	3,662,676	4,720,259	4,601,595	4,417,514
Hennepin	19,085,795	18,309,065	18,303,983	13,966,816	14,008,763	12,788,515	12,095,937
Coffeen	24,410,806	23,901,997	19,425,263	18,461,732	20,571,870	15,993,139	15,328,145
Coffeen	32,608,370	33,598,366	34,734,221	32,217,458	35,557,130	33,529,517	33,234,005
Duck Creek	28,849,323	24,159,532	25,219,962	23,561,779	22,385,698	22,722,935	23,470,382
E D Edwards	17,992,114	20,921,358	17,880,205	18,193,244	18,609,882	16,917,465	10,948,007
E D Edwards	26,068,920	25,293,516	18,872,502	22,552,954	20,704,034	13,527,349	17,244,294
Joppa	14,851,874	14,397,390	12,687,192	12,547,946	12,635,915	9,580,656	7,703,571
Joppa	14,204,176	11,839,036	12,343,639	12,120,069	12,687,892	8,655,055	7,518,431
Joppa	13,382,030	13,628,892	11,223,231	11,530,620	12,153,206	8,363,510	4,327,176
Joppa	14,331,786	14,356,229	12,426,971	12,272,250	12,939,835	9,138,359	6,811,839
Joppa	14,188,501	14,674,513	10,838,724	12,289,122	11,893,458	9,581,988	4,027,068
Joppa	14,506,686	14,927,835	12,063,815	12,069,593	13,094,796	8,445,632	4,937,499
Newton	42,601,247	39,488,197	35,688,037	31,216,532	32,214,778	27,378,355	23,918,941
Total	441,577,975	445,904,572	410,581,475	398,807,962	394,920,453	332,800,661	308,394,490

Table 5. Historical NO_x Emissions of the Affected Units

Plant	2010	2011	2012	2013	2014	2015	2016
Baldwin	1,075	1,129	1,610	1,388	1,188	1,384	1,214
Baldwin	1,129	1,300	1,375	1,670	1,475	985	1,428
Baldwin	1,558	2,343	2,125	1,902	2,040	1,879	1,397
Havana	583	1,148	1,219	1,336	1,181	892	1,188
Hennepin	390	389	381	259	347	317	330
Hennepin	1,245	1,194	1,313	989	1,019	893	873
Coffeen	702	590	703	635	656	567	490
Coffeen	884	860	1,270	1,251	1,223	1,048	1,207
Duck Creek	1,144	1,125	1,247	1,268	1,065	1,012	1,071
E D Edwards	1,969	2,091	1,891	1,752	1,723	1,683	1,153
E D Edwards	651	613	611	777	704	458	609
Joppa	876	862	774	730	701	548	430
Joppa	841	728	758	711	710	502	428
Joppa	728	762	599	614	654	458	219
Joppa	778	802	662	657	696	501	340
Joppa	805	821	604	670	602	515	219
Joppa	824	835	669	657	662	441	259
Newton	2,056	1,969	1,946	1,583	1,440	1,226	1,070
Total	**18,236**	**19,560**	**19,757**	**18,849**	**18,085**	**15,308**	**13,925**

Table 6. Historical SO_2 Emissions of the Affected Units

Plant	2010	2011	2012	2013	2014	2015	2016
Baldwin	7,907	7,332	1,591	1,513	1,213	1,503	1,275
Baldwin	8,981	9,974	6,765	1,714	1,490	1,062	1,577
Baldwin	5,201	1,753	1,847	1,576	1,706	1,595	1,168
Havana	7,458	7,784	5,814	1,130	1,068	858	1,141
Hennepin	1,452	1,489	1,313	883	1,002	1,048	1,099
Hennepin	4,691	4,601	4,593	3,396	2,959	2,922	2,966
Coffeen	86	36	43	61	22	21	13
Coffeen	125	47	60	47	10	16	20
Duck Creek	756	167	296	231	240	78	10
E D Edwards	4,338	4,900	4,871	4,107	4,021	3,609	2,306
E D Edwards	5,557	5,548	4,958	4,852	4,244	2,826	3,584
Joppa	4,497	4,506	3,005	2,843	3,080	2,360	1,576
Joppa	4,300	3,695	2,918	2,741	3,093	2,131	1,562
Joppa	4,111	4,325	2,727	2,622	2,950	2,070	911
Joppa	4,387	4,536	3,007	2,783	3,137	2,268	1,333
Joppa	4,254	4,527	2,521	2,802	2,866	2,332	1,015
Joppa	4,348	4,591	2,812	2,751	3,154	2,070	1,237
Newton	12,975	10,817	10,538	7,270	8,126	6,938	4,827
Total	**85,424**	**80,629**	**59,680**	**43,324**	**44,382**	**35,707**	**27,621**

6.0 State Implementation Plan Considerations

Illinois is required to submit any changes to the limits for NO_x and SO_2 in the MPS to the United States Environmental Protection Agency ("USEPA") as a revision to Illinois' State Implementation Plan ("SIP"). Section 110(l) of the CAA prohibits USEPA from approving a SIP revision if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress, or any other applicable requirement of the CAA. The purpose of this section of the document is to demonstrate that the proposed amendments are approvable as a SIP revision pursuant to the CAA Section 110(l).

6.1 Illinois' Regional Haze Plan

The limits for NO_x and SO_2 in the MPS were a major component of Illinois' SIP submittal for meeting the requirements of the federal Regional Haze Rule. The Regional Haze Rule requires states to implement measures to reduce emissions of pollutants that cause visibility impairment or haze in national parks and wilderness areas that were designated by the rule as Class I areas.

The proposed amendments do not interfere with meeting the pollution reduction goals that were set forth in Illinois' original Regional Haze SIP submitted in 2011, nor do they interfere with meeting the

goals that were restated in the Five-Year Progress Report for the Illinois Regional Haze SIP, submitted in February of 2017. In both documents, the same figures were used for estimating the quantity of emission reductions anticipated from the EGUs in the Dynegy and Ameren MPS Groups. Tables 7 and 8 show the NO_x and SO_2 emission reductions and emissions that were projected from the EGUs in both MPS Groups under the final MPS rate-based limits at the time of Illinois' original Regional Haze SIP submittal. These data and projections are taken from the *Technical Support Document for Best Available Retrofit Technology Under the Regional Haze Rule* that was submitted as an attachment to the SIP submittal.

Table 7. Regional Haze SIP Projected NO_x Emissions from the EGUs in the Current MPS Groups

Plant	Unit	2002 Actual Heat Input (1000 mmBtu)	Base Year Emission Rate (Lbs/ mmBtu)	Base Year Emissions (Tons)	Current MPS Emission Rate (Lbs/ mmBtu)	Projected Emissions Under Current MPS Rate (Tons)	Tons/Year Reduction
Baldwin	1	43,884	0.55	12,119	0.1	2,194	9,925
Baldwin	2	37,135	0.4	7,405	0.1	1,857	5,548
Baldwin	3	46,403	0.12	2,850	0.1	2,386	464
Havana	9	28,514	0.27	3,901	0.1	1,477	2,424
Hennepin	1	4,684	0.32	760	0.1	245	515
Hennepin	2	17,575	0.33	2,862	0.1	841	2,021
Vermilion	1	5,311	0.37	986	0.1	269	717
Vermilion	2	6,741	0.37	1,231	0.1	321	910
Wood River	4	5,561	0.19	521	0.1	271	250
Wood River	5	17,611	0.22	1,903	0.1	846	1,057
Coffeen	1	18,570	0.53	4,918	0.11	1,018	3,900
Coffeen	2	37,545	0.5	9,422	0.11	2,101	7,321
Duck Creek	1	22,635	0.47	5,328	0.11	1,254	4,074
E D Edwards	1	6,417	0.41	1,306	0.11	343	963
E D Edwards	2	17,222	0.45	3,901	0.11	973	2,928
E D Edwards	3	15,972	0.46	3,639	0.11	844	2,795
Hutsonville	5	3,161	0.57	897	0.11	170	727
Hutsonville	6	3,443	0.52	902	0.11	196	706
Joppa	1	13,548	0.13	876	0.11	741	135
Joppa	2	16,258	0.13	1,048	0.11	885	163
Joppa	3	15,396	0.13	1,030	0.11	876	154
Joppa	4	13,402	0.13	904	0.11	770	134
Joppa	5	15,094	0.12	939	0.11	864	75
Joppa	6	16,063	0.12	999	0.11	919	80
Meredosia	1	1,134	0.51	292	0.11	65	227
Meredosia	2	1,337	0.5	336	0.11	75	261
Meredosia	3	1,069	0.51	271	0.11	57	214
Meredosia	4	1,406	0.51	357	0.11	76	281
Meredosia	5	10,810	0.47	2,524	0.11	578	1,946
Newton	1	40,631	0.15	3,037	0.11	2,224	813
Newton	2	38,533	0.11	2,215	0.11	2,215	0
				79,679		**27,951**	**51,728**

Table 8. Regional Haze SIP Projected SO_2 Emissions from the EGUs in the Current MPS Groups

Plant	Unit	2002 Actual Heat Input (1000 mmBtu)	Base Year Emission Rate (Lbs/ mmBtu)	Base Year Emissions (Tons)	Current MPS Emission Rate (Lbs/ mmBtu)	Projected Emissions Under Current MPS Rate (Tons)	Tons/Year Reduction
Baldwin	1	43,884	0.41	9,053	0.19	4,226	4,827
Baldwin	2	37,135	0.39	7,283	0.19	3,569	3,714
Baldwin	3	46,403	0.43	9,931	0.19	4,363	5,568
Havana	9	28,514	0.9	12,815	0.19	2,693	10,122
Hennepin	1	4,684	0.43	1,000	0.19	438	562
Hennepin	2	17,575	0.43	3,792	0.19	1,683	2,109
Vermilion	1	5,311	2.75	7,293	0.19	495	6,798
Vermilion	2	6,741	2.74	9,224	0.19	629	8,595
Wood River	4	5,561	0.55	1,536	0.19	535	1,001
Wood River	5	17,611	0.65	5,726	0.19	1,675	4,051
Coffeen	1	18,570	1.54	14,332	0.23	2,169	12,163
Coffeen	2	37,545	1.49	27,999	0.23	4,346	23,653
Duck Creek	1	22,635	0.97	11,026	0.23	2,651	8,375
E D Edwards	1	6,417	3.55	11,399	0.23	747	10,652
E D Edwards	2	17,222	1.7	14,666	0.23	2,008	12,658
E D Edwards	3	15,972	1.21	9,683	0.23	1,857	7,826
Hutsonville	5	3,161	4.53	7,163	0.23	367	6,796
Hutsonville	6	3,443	4.53	7,791	0.23	389	7,402
Joppa	1	13,548	0.51	3,441	0.23	1,544	1,897
Joppa	2	16,258	0.51	4,139	0.23	1,863	2,276
Joppa	3	15,396	0.51	3,947	0.23	1,792	2,155
Joppa	4	13,402	0.52	3,488	0.23	1,545	1,943
Joppa	5	15,094	0.52	3,932	0.23	1,743	2,189
Joppa	6	16,063	0.52	4,182	0.23	1,853	2,329
Meredosia	1	1,134	5.02	2,844	0.23	128	2,716
Meredosia	2	1,337	5.02	3,356	0.23	154	3,202
Meredosia	3	1,069	5.04	2,694	0.23	123	2,571
Meredosia	4	1,406	5	3,518	0.23	165	3,353
Meredosia	5	10,810	2.34	12,639	0.23	1,234	11,405
Newton	1	40,631	0.45	9,046	0.23	4,577	4,469
Newton	2	38,533	0.46	8,823	0.23	4,392	4,431
				237,761		55,953	181,808

The maximum allowable NO_x and SO_2 emissions from the EGUs in the proposed combined MPS Group under the proposed mass emission limits will be less than the anticipated emissions set forth in

the Regional Haze SIP submittals under the current and final MPS rate-based limits. The total of anticipated NO_x emissions set forth in the Regional Haze SIP submittals from all EGUs in both current MPS Groups is 27,951 tons annually. The proposed amendments include an annual mass emission limit for the combined MPS Group of 25,000 tons. The total of anticipated SO_2 emissions set forth in the Regional Haze SIP submittals from all EGUs in both current MPS Groups is 55,953 tons annually. The proposed amendments contain an annual mass emission limit for the combined MPS Group of 55,000 tons. As such, the proposed mass emission limits for the combined MPS Group are sufficient to limit total emissions of both pollutants to less than the levels that were determined to be necessary to achieve the visibility improvement goals discussed in the Regional Haze SIP submittals, which satisfies the requirements under Section 110(l) of the CAA.

It should be noted that under the current rate-based MPS emission standards, there is no specified maximum limit on emissions of either NO_x or SO_2 for the MPS Groups. The anticipated emission reductions that were expected as a result of the MPS, and used for the purposes of the Regional Haze Rule, were based on a 2002 base year. The EGUs in the MPS Groups are not currently prohibited from emitting more than was anticipated in the Regional Haze SIP submittals. As previously stated, increases in utilization of the affected units could have previously, or could still in the absence of the mass-based emission limits proposed in this rulemaking, result in emissions greater than those that were anticipated in the Regional Haze SIP submittals.

6.2 Other Requirements Related to CAA Section 110(l)

The demonstration that the proposed amendments are approvable as a SIP revision pursuant to CAA Section 110(l) relies upon Tables 1 and 2 showing that the calculated allowable emissions of the affected EGUs for NO_x and SO_2 will be lower under the proposed amendments than under the current MPS rate-based standards. Tables 7 and 8 also demonstrate that total allowable emissions of NO_x and SO_2 from EGUs in the proposed combined MPS group will be less than the total projected NO_x and SO_2 emissions from the current MPS groups when Illinois' Regional Haze SIP was submitted and approved.

As discussed in Section 5.2, emissions from the affected units could vary due to increased or decreased utilization in a given year. This is also true for emissions of other criteria pollutants. However, the proposed amendments do not involve any changes to the allowable emissions of carbon monoxide, ammonia, particulate matter, or volatile organic compounds from the affected sources. Thus, the Agency has not prepared a ton for ton comparison for these pollutants because there will be no change in the allowable emission standards for the affected units when comparing current rules and the proposed amendments.

Additionally, if adopted, the MPS mass emission limits will be effective for the 2018 calendar year and thereafter, and the current MPS standards will be in place through the 2017 calendar year. So, the amended limits are equivalent or more stringent than the previous standards, and are quantifiable, permanent, surplus, enforceable, and contemporaneous.

STATE OF ILLINOIS)
) **SS**
COUNTY OF SANGAMON)
)

CERTIFICATE OF SERVICE

I, the undersigned, an attorney, state that I have served the attached RULEMAKING PROPOSAL entitled "AMENDMENTS TO 35 ILL. ADM. CODE 225.233, MULTI-POLLUTANT STANDARDS (MPS)," MOTION FOR EXPEDITED REVIEW, AND APPEARANCES upon the person to whom it is directed, by placing a copy in an envelope addressed to:

Don Brown
Clerk
Illinois Pollution Control Board
James R. Thompson Center
100 West Randolph St., Suite 11-500
Chicago, IL 60601-3218

Andrew Armstrong
Division Chief of Environmental Enforcement
Office of the Attorney General
100 West Randolph St., Suite 1200
Chicago, IL 60601

Office of Legal Services
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702-1271

and mailing it by first-class mail from Springfield, Illinois, with sufficient postage affixed.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY,

/s/ Gina Roccaforte
Gina Roccaforte
Assistant Counsel
Division of Legal Counsel

Dated: October 2, 2017

1021 North Grand Avenue East
Springfield, Illinois 62794-9276
(217) 782-5544