BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	R18-20
AMENDMENTS TO	)	(Rulemaking – Air)
35 ILL. ADM. CODE 225.233,	)	
MULTI-POLLUTANT STANDARDS (MPS)	)	

NOTICE

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

SEE ATTACHED SERVICE LIST

PLEASE TAKE NOTICE that I have today electronically filed with the Office of the Clerk of the Illinois Pollution Control Board the POST-HEARING COMMENTS OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, a copy of which is herewith served upon you.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

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DATED: June 1, 2018

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POST-HEARING COMMENTS OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

NOW COMES the Illinois Environmental Protection Agency ("Illinois EPA" or "Agency"), by its attorneys, and respectfully submits its post-hearing comments in the above rulemaking proceeding. The Illinois EPA appreciates the efforts of the Illinois Pollution Control Board ("Board") in this rulemaking proposal to amend 35 Ill. Adm. Code 225.233, Multi-Pollutant Standards ("MPS").

The Board held three hearings in this matter, at which the Agency and various other participants provided testimony and responded to questions, and members of the public provided comments: the first hearing was held in Peoria on January 17-18, 2018; the second hearing in Edwardsville on March 6-7, 2018; and the third hearing in Springfield on April 16-17, 2018.

Background

Dynegy Midwest Generation, LLC, Illinois Power Generating Company, Illinois Power Resources Generating, LLC and Electric Energy, Inc. (collectively, "Dynegy")[1] approached the Illinois EPA and requested changes to the MPS, so that the Dynegy and Ameren MPS Groups could be combined into a single MPS Group (as all electrical generating units ("EGUs") in both MPS Groups are currently under common ownership) to allow the company the flexibility of

[1] The merger between Dynegy and Vistra Energy Corp. ("Vistra") closed on April 9, 2018, with Vistra as the surviving company. The Illinois EPA uses the name "Dynegy" throughout its Comments, with the understanding that these EGUs are now owned by Vistra.

using its entire fleet to meet emissions standards. Dynegy also requested that the nitrogen oxides ("NO_x") annual, NO_x seasonal, and sulfur dioxide ("SO_2") annual emission rates be replaced with mass emission limits.

As explained by the Illinois EPA and Dynegy throughout this rulemaking, a main objective of the proposed amendments is to provide operational flexibility to Dynegy by combining the two MPS groups into one group that is subject to one set of mass emission limits for the entire fleet, thereby eliminating the need for Dynegy to operate some of its EGUs at a financial loss at certain times to comply with the MPS. *Illinois EPA's Technical Support Document* ("*TSD*") at 5-6; Prefiled Testimony of Rick Diericx, at 8-10 (hereafter "Exhibit 14")[2]; Prefiled Testimony of Dean Ellis, at 10-11 (hereafter "Exhibit 15"); Transcripts ("Tr.") of the Jan. 17, Jan. 18, Mar. 6, and Apr. 17, 2018 Public Hearings. In response, the Illinois EPA developed the proposed amendments that eliminate the rate-based standards and replace them with mass-based emission limitations, intended to provide Dynegy with the flexibility to offer, bid, and dispatch subject EGUs in an economically efficient manner while maintaining air quality in Illinois.

Allowable Emissions

The Illinois EPA's proposed amendments reflect its efforts to take the current rate-based standards under the MPS and convert them to mass-based emission limitations while protecting air quality. Its approach in doing so and its proposal are fairly simple. The Agency has proposed NO_x and SO_2 mass-based emission limitations that are both 1) below the emission levels allowed under the current rate-based standards; and 2) below the emission levels that were determined to

[2] The exhibits cited in this document are labeled according to the Board's Exhibit List, available on the Board's website.

be necessary to achieve the visibility improvement goals discussed in the Regional Haze State Implementation Plan ("SIP").

First, the Agency calculated the emission levels currently allowed by the MPS by multiplying the rated capacity of each of the units that will operate in the proposed combined MPS Group by the MPS emission rate that currently applies to the units in each MPS Group. *Illinois EPA's TSD* at 8-11. This method is consistent with how the Agency regularly calculates maximum allowable emissions,[3] is objective, and is the method the United States Environmental Protection Agency ("USEPA") uses when evaluating the environmental impact of State plan submittals. Email and Attachment from Douglas Aburano with USEPA and David Bloomberg with Illinois EPA (hereafter "Exhibit 47"); Tr. Apr. 17, 2018 at 79-87. The Agency's calculation of currently allowable emissions yielded 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. *Illinois EPA's TSD* at 9-11. No one in this rulemaking has disputed the accuracy of the Agency's calculations.

The Agency then compared the above amounts with the emissions anticipated under Illinois' Regional Haze SIP, as the MPS regulations were relied upon in that SIP. The Regional Haze SIP anticipates a total of 27,951 tons of annual NO_x emissions from the EGUs in both current MPS Groups and a total of 55,953 tons of annual SO_2 emissions; while not enforceable limitations *per se*, these are the emission levels determined to be necessary to achieve the visibility improvement goals discussed in the SIP and are considered to be SIP commitments by the Agency.[4] Tr. Jan. 17, 2018 at 129-30; *Illinois EPA's TSD* at 19.

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[3] Allowable emissions are generally defined as the emission rate of a stationary source calculated using the maximum rated capacity of the source (unless the source is subject to federally enforceable permit conditions or other such federally enforceable limits which restrict the operating rate, or hours of operation, or both) and the emissions rate specified as a federally enforceable permit condition. *See, e.g.*, 35 Ill. Adm. Code 203.107.

[4] 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. *Illinois EPA's TSD* at 19. The EGUs in the MPS Groups are not currently prohibited from emitting more than was anticipated in the Regional Haze SIP. *Id.* Therefore, increases in

Next, the Agency considered the impact of mass-based limits on actual emissions. As explained in detail in the *Illinois EPA's TSD*, such analysis was difficult because various factors independent of the MPS impact utilization and resulting emissions of EGUs, including economic conditions, weather, and the price of natural gas. *Illinois EPA's TSD* at 11-12. For example, while utilization of the EGUs in the existing MPS Groups has been relatively low in recent years, that could potentially change if 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. Tr. Mar. 6, 2018 at 139.

Based on the above, the Agency ultimately proposed to the Board limits below currently allowable limits, and below the emissions anticipated under the SIP: an annual limit of 25,000 tons per year for NOx, an annual limit of 55,000 tons per year for SO_2, and 11,500 tons for seasonal NOx. After the first hearing, the Agency proposed reducing the SO_2 cap to 49,000 tons per year in an effort to compromise with participants who oppose the rule revision; this proposed limitation is less than the level of emissions the Illinois Attorney General's Office ("Illinois AGO") calculated under its methodology, discussed at length during the first hearing.

Finally, the Agency consulted with USEPA to ensure that these limits and the Agency's methods of calculation were federally sanctioned. As mentioned above, the MPS is part of Illinois' Regional Haze SIP. Any amendments to the MPS adopted by the Board must be submitted to USEPA as a SIP revision. Section 110(l) of the Clean Air Act ("CAA") sets forth the requirements for SIP revisions and provides as follows:

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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. However, emissions greater than those anticipated would cause the Illinois EPA to impose additional limits on Dynegy or other emission units within the State. *Id.*

(l) Plan revisions

Each revision to an implementation plan submitted by a State under this chapter shall be adopted by such State after reasonable notice and public hearing. The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 7501 of this title), or any other applicable requirement of this chapter.

42 U.S.C. § 7410(l).

As the Illinois EPA has informed the Board, USEPA Region V has evaluated this proposal, agrees with the Agency's calculations, agrees that an allowable-to-allowable comparison is the appropriate analysis to determine compliance with anti-backsliding requirements, and agrees that the proposed amendments represent a reduction in allowable emissions; therefore, Region V advised that it is likely approvable as a revision to the Illinois Regional Haze SIP. *Illinois EPA's Statement of Reasons* at 11; *Illinois EPA's TSD* at 3; Tr. Jan. 17, 2018 at 36-37; and Email from Douglas Aburano to David Bloomberg, Aug. 22, 2017 (hereafter "Exhibit 13").

In its testimony, the Illinois AGO claimed that the USEPA "has consistently take[n] the position that an 'anti-backsliding' analysis under Section 110(l) requires consideration of a proposed SIP amendment's impact on 'actual,' not allowable, emissions." April 3, 2018, Prefiled Testimony of Andrew Armstrong, at 5 (hereafter "Exhibit 37"). The Illinois AGO is simply wrong. The Agency testified that it has conducted numerous 110(l) demonstrations and in each one has been required by USEPA to analyze allowable emissions, an exercise that is generally more onerous than one involving actual emissions. Tr. Apr. 17, 2018 at 69-72.

Despite this testimony, the Illinois AGO continued to claim otherwise, so the Illinois EPA went a step further; it requested and received confirmation directly from USEPA that USEPA typically requires a comparison of allowable emissions under the currently approved SIP

to the allowable emissions under the SIP revisions under consideration for approval. Ex. 37 at 5; Ex. 47. Accordingly, an allowable-to-allowable comparison is generally required for every SIP revision, as performed by the Illinois EPA for this rulemaking proposal. Ex. 47. USEPA explained, "An 'actuals-to-actuals' comparison is impossible because 'actuals' can only be measured after they have happened. You cannot predict what the future actual emissions from a source will be. The best you can do is place an upper limit (i.e. an allowable limit) that sources are required to emit below." Ex. 47.[5] The Agency presented the email and attachment at the hearing, definitively establishing that a comparison of allowable emissions is the metric by which USEPA will judge the environmental impact and the approvability of any amendments to the MPS.

The Agency's well-reasoned, logical approach to establishing mass-based limitations that correspond to the current rate-based standards stands in stark comparison to the approach advocated by the Illinois AGO, which argues that mass emission limitations should instead be based on various unpredictable factors that change from year to year. Specifically, it urges the Board to utilize data from prior years that have been "cherry-picked" by the AGO. This approach is confusing, subjective, and problematic, as highlighted by the AGO's own testimony.

In its initial testimony, the Illinois AGO argued that the Agency's proposed limits are too high and "reflect an increase in allowable pollution." Ex. 37 at 16. It claimed that the MPS

[5] The Illinois AGO asked the hearing officer to clarify at hearing that the above statements were not "from the US EPA" but rather represented "a public comment of two employees from the US EPA . . . Whether these folks have the authority to speak for the entire nation is questionable at this point." Tr. Apr. 17, 2018 at 89. Regardless of the semantics, statements of even two employees of USEPA regarding 110 (l) demonstrations and what USEPA does and does not require, one of whom is USEPA headquarters' designated "110(l) expert," are more authoritative than those of the Illinois AGO, which does not conduct 110(l) demonstrations, has never conducted a 110(l) demonstration, and admittedly has not spoken to any employee of USEPA regarding the 110(l) demonstration required for this rulemaking. Tr. Apr. 17, 2018 at 13-14. Further, the Agency notes that other participants have submitted into the record phone call transcripts and news articles purporting to quote Vistra CEO Curtis Morgan, to support their view of Vistra's position without supporting evidence or verification. Tr. Apr. 17, 2018 at 31-33 and 193-195.

Groups' "actual potential to emit," a novel term the Agency is wholly unfamiliar with, should be calculated differently than the typical way the Agency calculates allowable emissions. Ex. 37 at 14-20. The Illinois AGO provided the Board a "theoretical" or "analytical" exercise whereby it determined "actual potential to emit" under the current MPS utilizing only 2016-unit level emission rates for the cleanest plants running at maximum heat input.[6] Ex. 9 at 17-20; Tr. Jan. 17, 2018 at 175; and Tr. Mar. 7, 2018 at 42. Pursuant to this exercise, it indicated that "the total maximum allowable SO_2 emissions under the current MPS should be considered no more than 49,305 tons using the 2016 unit-level emission rates," and total maximum allowable NO_x emissions under the current MPS "should be considered no more than 29,140 tons." Prefiled Testimony of James P. Gignac at 18-19 (hereafter "Exhibit 9").

Subsequently, after the Agency proposed a compromise in which it supported a reduction of the SO_2 emission limitation to 49,000 tons per year, an emission level below the Illinois AGO's calculated "actual potential to emit," the Illinois AGO submitted prefiled testimony for the third hearing urging the Board to instead rely on a *different* exercise using 2017 unit-specific emission rates and 2002 unit-specific heat inputs. Ex. 37. At the third hearing, the Illinois EPA explained in detail why a calculation based upon these parameters is faulty and problematic. Tr. Apr. 17, 2018 at 133-43. The Illinois AGO used unit-specific heat input data from 2002 for each of the affected units. While the Illinois AGO implied this was appropriate or equivalent to the Agency's methods regarding the Regional Haze SIP, unit-specific heat input data is problematic because the proportional use of the currently operating units and the pollution control equipment at those units is much different today than it was in 2002. Likewise, the use of unit-specific

[6] According to Dynegy, 2016 was not a representative year for operations of the MPS units; in fact, the fleet average capacity factor for 2016 was the lowest it has been in years. Dynegy's Prefiled Answers to Questions from the Illinois Environmental Protection Agency, at 1 (hereafter "Exhibit 17").

actual emission rates from 2017 is inappropriate because they are again taken from a single year that may not be representative, and because the Illinois AGO used actual emission rates rather than the allowable MPS emission rates. By using these two factors, the Illinois AGO would inappropriately restrict these units according to the specific unit usage from 2002 and actual emission rates in 2017.

The Illinois AGO also used methods that were inconsistent with each other in calculating the contributions from the Dynegy and Ameren MPS Groups. The Dynegy MPS Group's contribution to the Illinois AGO's suggested limit was calculated by applying the 2002 and 2017 data sets it used. The Illinois AGO then used a different method to calculate the Ameren MPS Group's contribution because the use of their chosen data sets would have resulted in theoretical noncompliance with current MPS limits. This theoretical noncompliance only illustrates the inappropriateness of both the data sets used and the Illinois AGO's attempt to combine them into a single analysis.

The Agency provided the Board a more detailed explanation of its issues with the peculiar methodology behind the AGO's suggested SO_2 cap of 34,094 tons per year at the third hearing in this matter, outlining why it is not a meaningful or well-reasoned alternative to the approach taken by the Agency. Tr. Apr. 17, 2018 at 133-43. In addition, the testimony and suggested cap, as well as the other various numbers that have been put forth by the Illinois AGO throughout the rulemaking process, truly demonstrate the subjectivity of the Illinois AGO's approach and that there is a multitude of ways to calculate an emissions cap when one makes arbitrary choices about which historic variables and data to use.

The Illinois AGO has attempted to support its method of establishing emission limitations by arguing that the Board has adopted regulations "predicated upon actual annual emissions" in

the past, in R09-10, a prior rulemaking that amended the MPS. Tr. Apr. 17, 2018 at 40; *In the Matter of: Amendments to 35 Ill. Adm. Code 225, Control of Emissions from Large Combustion Sources (Mercury Monitoring)*, R09-10 ("R09-10"); Ex. 9 at 5. The AGO claims that the Agency's current analysis of allowable emissions "differs radically" from its analysis in this prior rulemaking, where the Agency "projected emissions using actual historical heat inputs just as [the Illinois AGO] argue[s] is necessary in this rulemaking. In other words . . . the Agency's analysis in R09-10 was based on projected actual emissions." Tr. Apr. 17, 2018 at 35, 41.

However, the Agency's and Board's approach in R09-10 is *not* comparable to the methods of analysis formulated and advocated by the Illinois AGO in this rulemaking. In R09-10, the Board adopted adjusted SO_2 and NO_x emission rates for specified years as applicable to Ameren. R09-10, Opinion and Order of the Board Final Notice, 6 (June 18, 2009). An evaluation performed in the fall of 2008 confirmed that Ameren's proposal resulted in a projected environmental benefit of 842 tons of emissions. R09-10, Opinion and Order of the Board Second Notice, 16 (April 16, 2009). From the data derived by reports provided by Ameren, the Illinois EPA calculated an average heat input (based upon the three highest years between 2000 and 2008) for the Ameren MPS Group from 2010 through 2020 and multiplied that constant value by SO_2 and NO_x emission rates to determine the total tons of SO_2 and NO_x for the given period. There are several distinctions that should be noted in comparing R09-10 and this rulemaking at hand.

First, actual emission rates from previous years were not used in any analysis undertaken by the Agency in R09-10, as were used in the Illinois AGO's analysis in this rulemaking to reach its suggested SO_2 limit of 34,094. The Agency in all analyses, then and now, has used allowable emission rates from the MPS units as a comparison to proposed rule amendments. Additionally,

the Agency also did not use, and would never use, actual emissions from a single year, as was done in the Illinois AGO's analysis. This would lead to a variety of different possible outcomes based on the choice of year, as is evident in the various estimates for limits that the Illinois AGO has suggested might be appropriate throughout this rulemaking.

Furthermore, the Agency has not used full capacity figures for heat input for proposing appropriate limits for SO_2 in this rulemaking, as was implied by the Illinois AGO in its discussion of R09-10. Tr. Apr. 17, 2018 at 40-41. If the Agency had done so, it would have proposed 66,354 tons as the annual SO_2 limit as explained in the *Technical Support Document. Illinois EPA's TSD* at 9. Instead, the Agency proposed a limit of 55,000 tons (later lowered to 49,000 tons) annually to maintain commitments made in its Regional Haze SIP. This would constitute a reduction in allowable emissions for the proposed combined MPS Group from full capacity estimates.

Additionally, the alterations that were made to the emission rates and their implementation schedules in R09-10 were not proposed by the Agency, nor were they based on an Agency analysis of appropriate limits or the timing of those limits. Those alterations to the limits and schedule were requested by Ameren based upon what Ameren determined it could comply with given its plans for operation and pollution control upgrades at that time. The Agency neither supported nor opposed those alterations, but did provide an analysis that showed that the amended limits and schedule would provide a projected environmental benefit over the subsequent 11 years, and then beyond the year 2020.[7]

[7] Further, R09-10 highlights why projecting future emissions from the electrical generation sector is so difficult. The projections in R09-10 were based on the Agency's and Ameren's most educated analyses, which underwent Board review, but due to the variability of the power market those projections of actual emissions turned out to be significantly overestimated. Those estimates projected that total SO_2 emissions in the years 2010-2017 would be 532,447 tons, while the Ameren MPS Group's actual SO_2 emissions have been 350,581 tons over that period, an overestimate of 181,886 tons or approximately 52%.

For these reasons, comparison of the underlying circumstances and analyses in these two rulemakings is inapt. Using this comparison as support for the Illinois AGO's argument for a suggested SO_2 limit of 34,094 tons per year is likewise inappropriate. The Illinois AGO's projections would restrict operations at the EGUs to about 51% of capacity, a limitation based on methods completely different than those used in R09-10. Such a restriction on operation goes far beyond what the Agency or the Board has previously considered a projected environmental benefit and seeks to limit the sources to levels that would represent their lowest historical utilization without consideration for the many factors previously discussed by the Agency that could cause utilization to increase.

In addition, while the Illinois AGO may continue to oppose the Agency's reliance on allowable emission reductions as indicators of environmental impact, this is the same analysis that USEPA utilizes in assessing the impact of State regulations submitted for approval to determine whether such regulations represent backsliding under Section 110(l) of the CAA, a fact that simply cannot be (and has not been) reasonably disputed by the AGO in this proceeding. It is an objective method immune from the unpredictabilities and uncertainties inherent in an analysis based on projecting actual emissions. As has been amply supported, and as explained again in more detail above, the Agency's proposal complies with Section 110(l) of the CAA and will not interfere with any CAA requirement, including attainment of the National Ambient Air Quality Standards ("NAAQS").

Air Quality

Many statements have been made in this rulemaking regarding the impact of the Agency's proposed amendments on air quality. The Illinois AGO claims that "there is no environmental protection or pollution control resulting from these proposed modifications." Ex.

9 at 13. In addition, one commenter stated, in part. "The lack of air monitoring suggests to me that air quality is not a concern of the Illinois EPA," and another commenter urged the Board to "not take a step backwards on our air quality." Tr. Apr. 16, 2018 at 18, 25.

As the Agency has explained several times, the MPS was not designed or relied upon to specifically protect local air quality, nor *can* an annual standard covering multiple plants across a wide geographic area be reasonably expected to ensure short-term air quality in specific local areas. Illinois Environmental Protection Agency's Responses to Prefiled Questions, Jan. 12, 2018, at 34 (hereafter "Exhibit 6"); Tr. Mar. 6, 2018 at 163. In fact, the MPS is not part of any SIP that is currently being relied upon to implement any federal air quality standard. Tr. Jan. 17, 2018 at 35. Instead, the Agency relies upon other regulations in addition to the MPS to ensure local air quality is safe, and those regulations are not changing. Despite that, the Illinois EPA analyzed potential impacts of its proposal on air quality and demonstrated that federal standards will continue to be protected in Illinois, and that Illinois air quality has consistently improved in the areas surrounding Dynegy's facilities.

Impact on the NAAQS

The Agency has provided the Board with evidence demonstrating that its proposal will not interfere with air quality, specifically the NAAQS, federal air quality standards specifically designed to protect human health within an adequate margin of safety. First, the Agency explained that all of the EGUs in the MPS Groups are subject to other limitations, both under different rules and under the Agency's proposal, that restrict NO_x and SO_2 emissions; these limitations will continue to apply, even if utilization of specific plants increases or decreases under the current MPS regulations or under any amendments adopted by the Board. As outlined in detail in charts provided to the Board by Dynegy and the Agency, these additional provisions

include the federal acid rain rules, Cross-State Air Pollution Rule, the Mercury Air Toxics Rule, state regulations, and consent decrees. The units at the E.D. Edwards Power Station, for example, are subject to hourly SO_2 emissions limitations under 35 Ill. Adm. Code 214.603, limits that were previously demonstrated to ensure the NAAQS will not be violated and which will remain unchanged by the Board's adoption of the Agency's proposed amendments to the MPS. Ex. 6, Attachment 2; Dynegy's Prefiled Answers to Questions from the Illinois Pollution Control Board, Attachment A (hereafter "Exhibit 16"); and Illinois Environmental Protection Agency's Responses and Information Requested from January Hearings, Feb. 16, 2018, at 6 (hereafter "Exhibit 29").

As part of this proposal, the units at the Joppa Power Station would be subject to an additional combined annual SO_2 emissions limitation of 19,860 tons to ensure the Massac County area will not become an SO_2 nonattainment area under the federal Data Requirements Rule ("DRR") due to Joppa's emissions, and that additional modeling to determine attainment under such Rule will not be necessary for the area. *Illinois EPA's TSD* at 6-7. Furthermore, 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 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 from May 1 to September 30; this additional limitation is intended to ensure continuation of a high level of NO_x control by such units. *Illinois EPA's Statement of Reasons* at 7.

Next, the Agency explained that it analyzed prior modeling conducted under both the DRR and the Agency's attainment demonstration for the Pekin nonattainment area, to assess the

possible impacts of the proposed amendments on the SO_2 NAAQS. The Newton, Hennepin, Joppa, and Baldwin sources were modeled to satisfy requirements of the DRR, and review of prior modeling demonstrated that all areas, except the Joppa area, had design values well below the level where attainment of the NAAQS would be threatened. Ex. 6 at 9; Ex. 29 at 7-12.

Furthermore, the DRR requires that Illinois annually review areas where SO_2 emissions increase by more than 15% to determine if further modeling is necessary in relation to the SO_2 NAAQS, so if actual emissions increase near the locations of the above facilities moving forward, the Agency will again evaluate the NAAQS and take appropriate steps at that time as needed. *Id.* The Edwards, Havana, and Duck Creek sources were modeled for the attainment demonstration for the Pekin nonattainment area; concentrations were close to the NAAQS design value, but only because maximum allowable emissions from all sources of emissions were modeled for the purpose of demonstrating attainment in the area. Ex. 29 at 11-12. The Agency also noted that this analysis showed the NAAQS was maintained in all of these areas even though modeled emissions from the affected sources exceeded the proposed emissions cap for all of the Dynegy facilities. *Id.*; Tr. Apr. 17, 2018 at 104. The Agency explained at hearings that, based on the above, its proposal includes a separate limit applicable only to the Joppa facility because it is the only plant where emissions are close enough to the NAAQS to warrant a specific local limitation. Tr. Jan. 17, 2018 at 30; Tr. March 6, 2018 at 128.

Air Quality Near Facilities

In addition to the above, in response to comments claiming that, generally, the air quality in the Peoria/Pekin area has deteriorated or at least not improved over the course of many years, the Agency provided the Board with an analysis demonstrating improving air quality across the areas near Dynegy's facilities. Ex. 29 at 5-6. SO_2, NO_x, and $PM_{2.5}$ emissions from the E.D.

Edwards Power Station have all significantly decreased. *Id.* SO_2 emissions from the Edwards source were as high as 76,410 tons in 1997, but have since decreased to a low of 5,890 tons in 2016 – a 92% reduction in emissions. *Id.* NO_x emissions were as high as 13,523 tons in 1997, while they were only 1,763 tons in 2016 – a decrease of 87%. *Id.* $PM_{2.5}$ emissions have decreased from 79 tons in 2004 to 23 tons in 2017 – a 71% reduction. *Id.*

Since 1983, SO_2 concentrations in Pekin have decreased 82% measured as an annual average, and 90% measured as an hourly 99th percentile. *Id.* Moreover, the SO_2 regulations promulgated in 2015 helped bring about a dramatic drop in hourly SO_2 concentrations over the past few years. *Id.* SO_2 concentrations have decreased 86% since 1983 in Peoria measured as an annual average and 76% measured as an hourly 99th percentile. *Id.* Additionally, $PM_{2.5}$ concentrations have decreased 53% in Peoria since 1999. *Id.* The Illinois EPA further examined information from other SO_2 monitors near Dynegy facilities, all of which showed great decreases in SO_2 concentrations over time. *Id.* Data demonstrate a 98% decrease in East St. Louis SO_2 measured both annually and as the hourly 99th percentile; a 70% decrease annually and 95% decrease as the hourly 99th percentile for Oglesby; and a 96% annual decrease and 98% hourly 99th percentile decrease in Wood River. *Id.* The Agency also reviewed data from other $PM_{2.5}$ and NO_2 monitors near Dynegy facilities, all of which also show large decreases in pollutant concentrations. *Id.*

Further, in a May 8, 2018, letter to the USEPA, the Illinois EPA requested a revised designation for the entire State of Illinois from "unclassifiable" to "attainment/unclassifiable" for the 2012 primary annual $PM_{2.5}$ NAAQS. *See, e.g.*, Tr. Mar. 6, 2018 at 129-30. The last three consecutive years (2015-2017) of quality assured, certified ambient air monitoring data collected by the Illinois EPA and the Cook County Department of Environment and Sustainability

demonstrates that the entire State of Illinois is currently meeting the 2012 annual $PM_{2.5}$ NAAQS. *Id.*

Health Impacts

In response to Agency filings and testimony suggesting that the NAAQS is an appropriate standard to rely upon for the protection of human health, testimony was provided by Brian Urbaszewski on behalf of Environmental Groups suggesting the proposal could result in negative health impacts, even if the NAAQS are maintained. For the reasons set forth below, however, the Board should give Mr. Urbaszewski's testimony no weight. In general, Mr. Urbaszewski's prefiled testimony and testimony before the Board are beyond his expertise and draw conclusions with respect to this rulemaking that are incorrect and unsupported. He selectively quotes from the 1,000-plus pages of materials attached to his prefiled testimony that contain information directly contradicting his conclusions. Tr. Mar. 7, 2018 at 59.

Unsupported Conclusions

Mr. Urbaszewski states that the current MPS rule "has prevented SO2 'hotspots' and prevented many short-term spikes in SO2 that have been tied to health effects." Prefiled Testimony of Brian Urbaszewski, Feb. 6, 2018 (hereafter "Exhibit 34"). However, nowhere in his prefiled testimony does he provide any evidence for this conclusion, or indeed even mention the topic until the conclusion of the document. He did not define what would constitute a "hotspot" or a "spike," nor did he give any reasonable mechanism by which the current MPS rule would prevent such occurrences. In responses to questions at hearing regarding these "spikes" and "hot spots," he indicated that those were his own, imprecise terms, and that he could not identify the emission or pollution levels or a timeframe that would correspond to these terms. Tr. Mar. 7, 2018 at 71-72. When the Agency asked Mr. Urbaszewski to detail specific instances

where the current MPS rule prevented short-term increases that he would consider "spikes" in SO_2, he was unable to provide any, admitting he had not done any analysis to support this claim and that it was just what he "would expect." Tr. Mar. 7, 2018 at 74.

Throughout his testimony, Mr. Urbaszewski selects passages from voluminous documents that are misleading without additional context, such that he incorrectly implies that his testimony characterizes the position of the USEPA and other bodies. For example, when discussing exposure to "spikes," he claims:

> For SO2, it is short term spikes that trigger measurable health harms. But short spikes are hard to measure, so U.S. EPA set a longer-term average (i.e. hourly) that is sufficiently low in order to limit excessive short-term spikes and also the magnitude of spikes. Even then, U.S. EPA expressed concerns that this method under-estimated potential exposure

Id.; *see also* Tr. Mar. 7, 2018 at 82-84. Mr. Urbaszewski then quotes from the USEPA Risk and Exposure Assessment to Support the Review of the Primary SO_2 NAAQS: Final Report ("Final Report"), July 2009, attached to his testimony as Exhibit 4, at page 302:

> These results may suggest that a single peak approach (i.e., 24 peak concentrations per day) for estimating the number of persons and days with 5-minute SO2 exposures as a surrogate for all possible peak exposure events may lead to an under-estimate in the number of potential exposures.

Id.

There are several problems with this passage. Mr. Urbaszewski's claim that "short spikes are hard to measure" is incorrect. As explained at hearing by the Agency, SO_2 monitors in Illinois and throughout the United States are capable of measuring one-minute and five-minute readings, and these readings are reported and publicly available. Tr. Mar. 7, 2018 at 103. Mr. Urbaszewski's implication that it is this difficulty in monitoring that led USEPA to set a longer-term average standard, and his assertion that setting a 1-hour limit results in "underestimated exposures" to SO_2, are likewise incorrect. Tr. Mar. 7, 2018 at 83. This is not the reason a 1-hour

standard was chosen and has nothing to do with the passage he then quotes. A 1-hour standard was selected by USEPA because setting the standard at 75 parts per billion ("ppb") on a 1 hour-basis, a level much lower than exposure levels at which health effects are observed, is adequate to limit or eliminate the risk that higher exposure levels occur on a shorter-term basis, such as a five-minute exposure of greater than 200 ppb. Ex. 34, Final Report at 302-10.

Finally, Mr. Urbaszewski's claim that USEPA expressed concerns that setting a longer-term standard underestimated potential exposure is inaccurate. *Id.*; *see also* Tr. Mar. 7, 2018 at 84. In the material Mr. Urbaszewski cited to, what USEPA expressed concerns about was the single peak modeling approach initially used for estimating the number of potential exposures. USEPA acknowledged that this specific approach may have underestimated such exposures, and remedied the problem by using a multiple peak modeling approach for estimating simulated exposures in the study. *Id.* at 302. USEPA discussed this remedy in detail over the next eight pages of the Final Report, which was not mentioned or acknowledged by Mr. Urbaszewski.

In other words, the material that Mr. Urbaszewski quoted from USEPA's Final Report in no way supports the assertions that he was attempting to make. On the contrary, the excerpt is a good example of how thorough USEPA has been when revising a NAAQS, which even Mr. Urbaszewski acknowledged, which supports the Agency's position that compliance with the NAAQS is the proper method by which health impacts should be determined. Tr. Mar. 7, 2018 at 67-68.

USEPA's Determination of the SO_2 NAAQS

Mr. Urbaszewski claims that, in setting the SO_2 standard, "literature that USEPA relied upon shows that health effects occur in as little as five minutes of exposure, definitely below 200 parts per billion, and perhaps below 100 parts per billion." *Id.* at 69. This is misleading. From

Exhibit 5 of his own testimony submittal, which is the final rule revising the SO_2 NAAQS, 75 Fed. Reg. 35520 (June 22, 2010), the information for the Human Exposure and Health Risk Characterization illustrates that 400 ppb is the lowest level of exposure at which a meaningful (i.e., statistically significant) correlation between SO_2 concentrations and respiratory symptoms can be made with confidence and that observations of some decrements in lung function among some individuals in the study cannot be confidently attributed to the SO_2 concentration of 200 ppb. Ex. 34, Exhibit 5 at 35527-29. The study found no lung function or respiratory symptoms could be discerned when comparing SO_2 concentrations of 100 ppb and filtered air with no SO_2 or other pollutants. *Id.* The USEPA set the NAAQS at a level that protected 97-99% of asthmatic children from a five-minute exposure of 200 ppb once per year. *Id.* at 35542. The Agency could not find anything in the testimony package that might support Mr. Urbaszewski's claims of health effects "definitely below 200 parts per billion, and perhaps below 100 parts per billion."

In reviewing Mr. Urbaszewski's testimony, the Board may get the impression that USEPA did not consider the impact of SO_2 on sensitive groups like asthmatics or children. This is not the case. For USEPA's final rule revising the SO_2 NAAQS, the studies conducted were characterized almost exclusively in terms of the protection that each potential standard afforded to asthmatic children in the study area. *Id.* at 35541-42.

Regarding why a 1-hour standard of 75 ppb was chosen by USEPA, Mr. Urbaszewski selected passages from USEPA's final rule revising the SO_2 NAAQS in an apparent attempt to persuade the Board that USEPA disregarded evidence that a lower standard should have been selected. USEPA's final rule demonstrates otherwise. The studies and evidence Mr. Urbaszewski cited were considered by USEPA to be "not strong" or not statistically significant.

Id. 35541-42. USEPA did a great deal of analysis on SO_2 concentrations ranging from 50 ppb to 150 ppb. In short, it determined that a level of 50 ppb was likely too low, and any evidence of health effects was weak due to the confounding effects of additional pollutants. Other evidence indicated that a standard of 100 ppb may not provide adequate protection, so the USEPA essentially split the difference and chose a standard of 75 ppb. *Id.* While there were no individual studies of a standard of 75 ppb, a statistical interpolation was used to estimate that a standard of 75 ppb was adequate to protect health, even in the studies that indicated the most sensitivity to SO_2 concentrations. *Id.* USEPA determined that 75 ppb on an hourly basis was appropriate to protect human health with an adequate margin of safety, and from a thorough reading of the materials Mr. Urbaszewski himself submitted, it is clear that USEPA's analysis was thorough and conservative in this regard. *Id.*

The written testimony of Mr. Urbaszewski repeatedly misinterprets or misrepresents the scientific literature about which he was testifying and is incorrect regarding SO_2 monitoring, the health impacts of SO_2 concentrations studied, and the process by which the NAAQS was set, including the analyses USEPA undertook as part of that process. Mr. Urbaszewski admitted that he was not an expert in the fields on which he was testifying, and his testimony reflects a lack of understanding regarding USEPA's findings on the health effects of SO_2 for sensitive groups relative to the NAAQS, yet he was the only witness on the topic put forth by the Environmental Groups. Tr. Mar. 7, 2018 at 79. As discussed above, his testimony and responses at hearing did not support his assertions and conclusions and should be disregarded by the Board.

Environmental Protection Act

The Board has clear authority under the Environmental Protection Act ("Act") to adopt the Agency's proposal. Section 5(b) of the Act states, "[t]he Board shall determine, define and

implement the environmental control standards applicable in the State of Illinois and may adopt rules and regulations in accordance with Title VII of this Act." 415 ILCS 5/5(b). Section 8 of the Act states, in part, "[i]t is the purpose of this Title to restore, maintain, and enhance the purity of the air of this State in order to protect health, welfare, property, and the quality of life. . ." 415 ILCS 5/8. In addition, under Section 10 of the Act, "[t]he Board, pursuant to procedures prescribed in Title VII of this Act, may adopt regulations to promote the purposes of this Title." 415 ILCS 5/10.

The Illinois AGO has claimed throughout this rulemaking that "the Board should withdraw the [Illinois EPA's] proposed amendments and reject and dismiss this rulemaking for its failure to restore, maintain, or enhance air quality in Illinois." Ex. 9 at 2; Tr. Jan. 17, 2018 at 172; Tr. Jan. 18, 2018 at 9, 11. The Illinois AGO claims that "[t]he proposed amendments would not benefit air quality, but rather would allow increased pollution and weaken an important State public health program." *Id.*

The AGO's reasoning is flawed for several reasons. Section 8 of the Act sets forth a broad, general statement of purpose using terms that are likewise broad and, in fact, undefined under the Act. The AGO itself was unable to identify any specified level the Act requires air quality to be "restored" to, admitting that the Act does not specify concentrations of pollution that should be reached. Tr. Jan. 18, 2018 at 11. The AGO set forth its own interpretation, opining that the air pollution should be reduced "as much as possible." *Id.* The AGO further indicated that the Board, in reviewing previous rulemaking proposals, has looked for a "projected environmental benefit" or "environmental benefit." Prefiled Answers to Questions by Illinois EPA for James Gignac at 2 (hereafter "Exhibit 12"); Tr. Jan. 18, 2018 at 11.

This interpretation, however, is not supported by either the Act or Board regulations. Nothing requires the Board to adopt regulations reducing pollution "as much as possible," an ambiguous standard that, to the Agency's knowledge, is not utilized by the Board. Similarly, nothing requires the Board to find environmental benefit in a rulemaking (particularly as there are numerous rulemakings that are emissions-neutral, such as identical-in-substance rules, incorporation by reference rules, procedural rule amendments, updates or "clean-up" rules, rules extending compliance deadlines, sunsets of rules that are no longer beneficial or applicable, etc.), and the AGO itself acknowledged that there are many ways to quantify "benefit." Tr. Jan. 18, 2018 at 23.

Nonetheless, even *if* the Board were required to find a pollution reduction or environmental benefit, the Agency's proposal fully satisfies that criteria. The proposal results in lower allowable emissions from the EGUs comprising the MPS Group than under the current MPS: 25,000 tons per year for NO_x versus 32,841; 49,000 tons per year for SO_2 versus 66,354; and 11,500 tons for seasonal NO_x versus 13,766. *Illinois EPA's TSD* at 9-11; Ex. 29 at 2. In other words, the EGUs are allowed to emit more under the current rules than under the Agency's proposal, meaning the Agency's proposal protects and maintains air quality. Furthermore, the allowable emissions from the EGUs in the MPS Group under this proposal will be less than the anticipated emissions under the current MPS rate-based standards set forth in Illinois' Regional Haze SIP: 25,000 tons of annual NO_x emissions from the EGUs in both current MPS Groups versus 27,951; and 49,000 tons of annual SO_2 emissions from the EGUs in both current MPS Groups versus 55,953. *Illinois EPA's TSD* at 18-19; Ex. 29 at 2.

The Financial Position of Dynegy/Vistra

Much has been made in this rulemaking of Dynegy's financial position and whether it operates at a loss. From the Agency's perspective, however, the overall financial position or health of Dynegy has never been the primary driver of this rulemaking. The Environmental Groups have spent considerable effort attempting to dispel an assertion that the Agency has never made or used as a justification for the rule: that because the current MPS regulations cause some units to run at a loss at certain times, Dynegy as a whole operates at a loss. This has never been a contention put forth by the Illinois EPA. Rather, the Agency has noted throughout the proceedings that the financial losses driving the proposed amendments are occurring at the unit level. Ex. 6 at 14-15, 21-23. Representatives of Dynegy have explained that the losses occur because Dynegy must bid certain EGUs into the MISO energy market at prices below the EGUs' costs, thereby incurring a loss in operating these EGUs. Ex. 15 at 10-11; Tr. Jan. 18, 2018 at 102-04, 130-32, 137-40, 162-64. This scenario is primarily a function of rate-based standards, the costs of unit operation, and the way electricity is dispatched. *Id.* The proposed amendments therefore eliminate the rate-based standards and replace them with mass-based emission limitations, intended to provide the owner of the EGUs with the flexibility to offer, bid, and dispatch these EGUs in an economically efficient manner while maintaining air quality.

The Board asked Tamara Dzubay, the Environmental Groups' witness testifying to her review of Dynegy's financial records, to cite to the relevant sections of the Act that would require the Board to place relevance on whether or not the regulated entity is cash flow negative or positive. In response, Ms. Dzubay cited to Section 27 of the Act because it "states that in deciding on a rule, the Board shall take into account the economic reasonableness of measuring or reducing the particular type of pollution." Tr. Apr. 17, 2018 at 65. This is not the correct

analysis of economic reasonableness, nor should it be used by the Board in deciding upon the Agency's proposal. Ms. Dzubay misunderstands this provision and its relevance to the Board's adoption of rules.

Section 27 of the Act states, in part:

> In promulgating regulations under this Act, the Board shall take into account the existing physical conditions, the character of the area involved, including the character of surrounding land uses, zoning classifications, the nature of the existing air quality, or receiving body of water, as the case may be, and the technical feasibility and economic reasonableness of measuring or reducing the particular type of pollution.

415 ILCS 5/27(a).

In *E.P.A. v. Pollution Control Board*, the Court states that in considering economic reasonableness, "[h]istorically, the Board has employed a cost-benefit analysis in its proceedings, which generally has involved measuring the cost of implementing pollution control technology against the benefit to the public in reducing pollution." 308 Ill. App. 3d 741, 751 (2d Dist. 1999) (citing *EPA v. Lindgren Foundry Co.*, Ill. Pollution Control Bd. Op. 70-1 (Sept. 25, 1970)). The focus is on the cost to the regulated entity, not on such entity's financial history and profit margins. Environmental Groups would like to use Section 27 of the Act as a hammer against a company rather than a shield against unreasonable requirements that cannot be achieved without great financial burden.

The Environmental Groups have improperly created a standard by which Dynegy must prove financial hardship and profit loss in order to support the Illinois EPA's proposed amendments. This is not the proper standard and is not a position that the Board should adopt.

Allocation Amounts in the Event of Transfer or Shutdown

While the Agency does not believe that allocation amounts in the event of a shutdown are necessary, and it does not recommend that the Board include such amounts in the rule language,

the Illinois EPA provides shutdown allocation amounts for each cap being considered by the Board in response to the Board's request at the third hearing. Attached is a version of the MPS rule that includes allocation amounts in the event of transfer or shutdown of EGUs for an annual SO_2 emissions cap of 49,000 tons per year. *See* Attachment 1. Also attached are the allocation amounts in the event of transfer or shutdown of EGUs for annual SO_2 caps of 55,000 tons, 44,920 tons, and 34,094 tons. *See* Attachments 2, 3, and 4.[8] In the event that the Board promulgates this rule with an annual SO_2 emissions cap other than 49,000 tons per year, the allocation amounts for a different annual cap can be substituted into the amended rule provisions.

In order to calculate the transfer allocation amounts in the Agency's initial proposal, the Agency considered the installed pollution control equipment at each facility, the proportion of heat input from each facility in the proposed combined MPS Group, and information from Dynegy regarding operations at the affected sources. However, when the Agency supported a revised SO_2 cap of 49,000 tons per year, it calculated new transfer allocation amounts that are reduced in proportion to the new cap. In calculating transfer allocation amounts for SO_2 caps of 44,920 and 34,094 tons per year, the Agency employed the same proportional method. In all cases, the numbers were rounded. *See* Attachments 3 and 4.

The shutdown allocation amounts were then calculated at 50% of the suggested transfer allocation amounts for each cap being considered and are provided on a unit-level basis. The Agency calculated shutdown allocation amounts at 50% of the transfer amounts because generation lost at those units will likely need to be made up for by other units in the area, as has been discussed by the Agency at various times in this rulemaking. This is especially true at a

[8] The NO_x values for transfer and shutdown remain unchanged in the attachments, as the Board did not request that the Agency identify amounts for any alternative limitations.

facility like Joppa, where the retirement of one or more units out of six would likely result in the other units at the facility operating more in response.

The unit-specific values are calculated by each unit's proportion of heat input at the given facility. For instance, the SO_2 transfer allocation amount for the Hennepin facility, at the 49,000-ton cap, is 5,400 tons per year. The shutdown allocation amount for the entire facility would be 2,700 tons, or half of the transfer amount of 5,400 tons. However, the shutdown allocation for Unit 2, which is 2,050 tons, is much greater than for Unit 1, which is 650 tons, because Unit 2's capacity is approximately three times that of Unit 1's capacity. In calculating shutdown allocation amounts for annual SO_2 caps of 55,000 tons, 44,920 tons, and 34,094 tons, the Agency employed the same method. *See* Attachments 2, 3, and 4. The Agency provides unit-level shutdown allocation amounts because not all units at a facility may be shut down. Transfer allocation amounts are given on a facility-level because it is very unlikely that a single unit of a facility would be sold alone to a new owner.

Incorporation of New Requirements into Permits

Throughout the hearings, the Agency fielded several questions about how the MPS amendments would be incorporated into the sources' permits. Tr. Mar. 6, 2018 at 149; 162; 182; 188. The Agency has internally verified that the answers provided by its witnesses related to permits were correct. Any new emission limitations adopted by the Board under this rulemaking that apply to affected sources would be incorporated into the sources' Clean Air Act Permit Program ("CAAPP") permits through a permit reopening or renewal, just as would happen following amendments to any other rule. It should be noted that any new requirements adopted by the Board apply to affected sources regardless of whether or when such requirements are incorporated into CAAPP permits.

New Source Review

The Agency also received questions at the third hearing about how new sources are permitted. Tr. Apr. 17 at 228-30. New Source Review ("NSR") is the general term for the preconstruction review and permitting programs applicable to new and modified major stationary sources of air pollutants regulated under the CAA. *See* 42 U.S.C. §7470 *et seq.*; 42 U.S.C. §7501 *et seq*. There are two distinct NSR programs that can apply to a project based on the air quality in the area in which a project is located and whether the project's emissions make it a major project. In areas that attain the NAAQS, the Prevention of Significant Deterioration ("PSD") program governs. Currently, the Illinois EPA administers the PSD program in Illinois under authority provided by Section 9.1 of the Act and a delegation agreement with USEPA authorizing Illinois to enforce the federal PSD rules. *See* 40 CFR § 52.21. In an area that does not attain the NAAQS for a pollutant, Nonattainment NSR ("NA NSR") governs and takes the place of PSD for the nonattainment pollutant. *See* 35 Ill. Adm. Code Part 203.

If the emissions from a proposed new stationary source or the increase in emissions from a modification to an existing source meet the relevant criteria to be considered major, additional "case-by-case" requirements apply to the project. These case-by-case requirements include a control technology element, either Best Available Control Technology or Lowest Achievable Emission Rate, and an air quality-related element, either an analysis of the air quality impacts of the project or accompanying emission offsets. The provisions of NA NSR are generally more stringent than PSD, with lower applicability thresholds and more rigorous substantive requirements. A single project could be subject to both NA NSR and PSD if it entailed emissions that exceeded the major source threshold for a pollutant for which the area was nonattainment and a pollutant for which the area was attainment.

Conclusion

The Illinois EPA requests that the Board adopt its amended proposal combining the two MPS groups and setting mass-based emission limits of 49,000 tons per year for SO_2, 25,000 tons per year for annual NO_x emissions, and 11,500 tons per year for NO_x seasonal emissions.

WHEREFORE, as provided herein, the Illinois EPA has offered considerable testimony and technical support demonstrating the adequacy of its proposed amendments in this proceeding to date. Therefore, the Illinois EPA respectfully requests that the Board adopt the rulemaking proposal.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
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Attachment 1

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.

5) 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 through calendar year 2017, 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 2017ozone season, 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 subsections (f) and (g), 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 subsections (f) and (g), 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), and (g)(1), 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, for the EGUs in each MPS Group, 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 subsections (f) and (g), 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 49,000 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.

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) 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).

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).

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).

iv) 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.

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, the 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 the 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).

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	5,400
B)	Havana	1,800	810	1,350
C)	Hennepin	1,500	675	5,400
D)	Coffeen	2,000	900	225
E)	Duck Creek	1,400	630	225
F)	Edwards	3,000	1,350	9,000
G)	Joppa	5,200	2,340	16,200
H)	Newton	2,700	1,215	9,000

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 after 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) 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 after 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) 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) Shutdown of EGUs in an MPS Group

1) If one or more EGUs in an MPS Group are permanently shut down:

A) Such EGU or EGUs are no longer part of an MPS Group and no longer subject to the requirements of this Section.

B) 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 (g)(2) that are attributable to the shutdown EGU or EGUs. The owner and operator of the MPS Group must comply with the adjusted emissions limitations, beginning with the compliance period or periods during which the permanent shutdown occurs. For purposes of this Section, "permanent shutdown" occurs on the date the owner or operator of the EGUs submits a written request to the Agency to modify its operating permit to reflect the shutdown of the EGU or EGUs, or to withdraw the permit for the source.

C) Nothing in this subsection (g) 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).

2) Allocation Amounts in the Event of Shutdown of EGUs

		Column A. NO_x Allocation Amount (TPY) in the Event of Shutdown	Column B. NO_x Allocation Amount (May 1 - Sept 30 Tons) in the Event of Shutdown	Column C. SO_2 Allocation Amount (TPY) in the Event of Shutdown
A)	Baldwin 1	1,030	460	920
B)	Baldwin 2	950	430	860
C)	Baldwin 3	1,020	460	920
D)	Havana 9	900	400	675
E)	Hennepin 1	180	80	650
F)	Hennepin 2	570	250	2,050
G)	Coffeen 1	370	170	40
H)	Coffeen 2	630	280	70
I)	Duck Creek 1	700	320	110
J)	Edwards 2	630	280	1,900
K)	Edwards 3	870	390	2,600
L)	Joppa 1	435	195	1,350
M)	Joppa 2	435	195	1,350
N)	Joppa 3	435	195	1,350
O)	Joppa 4	435	195	1,350
P)	Joppa 5	435	195	1,350

Q)	Joppa 6	435	195	1,350
R)	Newton 1	1,350	610	4,500

3) If one or more EGUs in an MPS Group are permanently shut down:

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

i) Name and address of the owner and operator;

ii) List of the EGUs permanently shut down;

iii) For the remaining EGUs in the MPS Group, calculations pursuant to subsection (g)(1)(B) 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; and

iv) Date of permanent shutdown.

hg) 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). 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). 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 (hf) 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), 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 (hf), 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 (hf) 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 will 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.

ih) 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 (ih)(1) and (ih)(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 (~~j~~i) of this Section.

~~j~~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 as set forth in this subsection (~~j~~i)(2).

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), and (g)(1), as applicable, and with the requirements under subsection (e)(1)(E)(i), as applicable, on or before March 1 of each year. The 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), and (g)(1), as applicable. The 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).

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 the deviations, a discussion of the possible cause of the deviations, and a description of any corrective actions and preventative measures taken.

4) Within 30 days after 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.

Attachment 2

Section 225.233(e)(2)(C)

C) Except as otherwise provided in subsections (f) and (g), 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.

Section 225.233(g)(2)

2) Allocation Amounts in the Event of Shutdown of EGUs

		Column A. NO_x Allocation Amount (TPY) in the Event of Shutdown	Column B. NO_x Allocation Amount (May 1 - Sept 30 Tons) in the Event of Shutdown	Column C. SO_2 Allocation Amount (TPY) in the Event of Shutdown
A)	Baldwin 1	1,030	460	1,030
B)	Baldwin 2	950	430	950
C)	Baldwin 3	1,020	460	1,020
D)	Havana 9	900	400	750
E)	Hennepin 1	180	80	725
F)	Hennepin 2	570	250	2,275
G)	Coffeen 1	370	170	50
H)	Coffeen 2	630	280	75
I)	Duck Creek 1	700	320	125
J)	Edwards 2	630	280	2,100
K)	Edwards 3	870	390	2,900

L)	Joppa 1	435	195	1.500
M)	Joppa 2	435	195	1.500
N)	Joppa 3	435	195	1.500
O)	Joppa 4	435	195	1.500
P)	Joppa 5	435	195	1.500
Q)	Joppa 6	435	195	1.500
R)	Newton 1	1.350	610	5.000

Attachment 3

Section 225.233(e)(2)(C)

C) Except as otherwise provided in subsections (f) and (g), 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 44,920 tons from all EGUs.

Section 225.233(f)(2)

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	4,900
B)	Havana	1,800	810	1,225
C)	Hennepin	1,500	675	4,900
D)	Coffeen	2,000	900	200
E)	Duck Creek	1,400	630	200
F)	Edwards	3,000	1,350	8,200
G)	Joppa	5,200	2,340	14,700
H)	Newton	2,700	1,215	8,200

Section 225.233(g)(2)

2) Allocation Amounts in the Event of Shutdown of EGUs

		Column A. NO_x Allocation Amount (TPY) in the Event of Shutdown	Column B. NO_x Allocation Amount (May 1 - Sept 30 Tons) in the Event of Shutdown	Column C. SO_2 Allocation Amount (TPY) in the Event of Shutdown
A)	Baldwin 1	1,030	460	840
B)	Baldwin 2	950	430	780
C)	Baldwin 3	1,020	460	830
D)	Havana 9	900	400	610
E)	Hennepin 1	180	80	590
F)	Hennepin 2	570	250	1,860
G)	Coffeen 1	370	170	40
H)	Coffeen 2	630	280	60
I)	Duck Creek 1	700	320	100
J)	Edwards 2	630	280	1,720
K)	Edwards 3	870	390	2,380
L)	Joppa 1	435	195	1,225
M)	Joppa 2	435	195	1,225
N)	Joppa 3	435	195	1,225
O)	Joppa 4	435	195	1,225
P)	Joppa 5	435	195	1,225

Q)	Joppa 6	435	195	1.225
R)	Newton 1	1.350	610	4.100

Attachment 4

Section 225.233(e)(2)(C)

C) Except as otherwise provided in subsections (f) and (g), 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 34,094 tons from all EGUs.

Section 225.233(f)(2)

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	3,720
B)	Havana	1,800	810	930
C)	Hennepin	1,500	675	3,720
D)	Coffeen	2,000	900	155
E)	Duck Creek	1,400	630	155
F)	Edwards	3,000	1,350	6,200
G)	Joppa	5,200	2,340	11,200
H)	Newton	2,700	1,215	6,200

Section 225.233(g)(2)

2) Allocation Amounts in the Event of Shutdown of EGUs

		Column A. NO_x Allocation Amount (TPY) in the Event of Shutdown	Column B. NO_x Allocation Amount (May 1 - Sept 30 Tons) in the Event of Shutdown	Column C. SO_2 Allocation Amount (TPY) in the Event of Shutdown
A)	Baldwin 1	1,030	460	640
B)	Baldwin 2	950	430	590
C)	Baldwin 3	1,020	460	630
D)	Havana 9	900	400	465
E)	Hennepin 1	180	80	450
F)	Hennepin 2	570	250	1,410
G)	Coffeen 1	370	170	30
H)	Coffeen 2	630	280	50
I)	Duck Creek 1	700	320	80
J)	Edwards 2	630	280	1,300
K)	Edwards 3	870	390	1,800
L)	Joppa 1	435	195	935
M)	Joppa 2	435	195	935
N)	Joppa 3	435	195	935
O)	Joppa 4	435	195	935
P)	Joppa 5	435	195	935

Q)	Joppa 6	435	195	935
R)	Newton 1	1.350	610	3.100

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

CERTIFICATE OF SERVICE

I, the undersigned, an attorney, state the following:

I have electronically served the attached POST-HEARING COMMENTS OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY upon the persons on the attached Service List.

My e-mail address is antonette.palumbo@illinois.gov.

The number of pages in the e-mail transmission is 62.

The e-mail transmission took place before 5:00 p.m. on June 1, 2018.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY,

/s/ Antonette R. Palumbo
Antonette R. Palumbo
Assistant Counsel
Division of Legal Counsel

Dated: June 1, 2018

1021 North Grand Avenue East
Springfield, Illinois 62794-9276
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SERVICE LIST

Marie Tipsord
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