BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	R15-21
AMENDMENTS TO 35 ILL. ADM. CODE	)	(Rulemaking-Air)
PART 214, SULFUR LIMITATIONS, PART	)	
217, NITROGEN OXIDES EMISSIONS,	)	
AND PART 225, CONTROL OF EMISSIONS	)	
FROM LARGE COMBUSTION SOURCES	)	

NOTICE

To: John Therriault, Assistant Clerk
Illinois Pollution Control Board
James R. Thompson Center
100 West Randolph, Suite 11-500
Chicago, Illinois 60601-3218

PLEASE TAKE NOTICE that I have today filed with the Office of the Pollution Control Board the Rebuttal Comments of the Illinois Environmental Protection Agency, a copy of which is herewith served upon you.

Respectfully submitted,

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Dana Vetterhoffer
Assistant Counsel

DATED: September 11, 2015
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REBUTTAL COMMENTS OF THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

The Illinois Environmental Protection Agency ("Illinois EPA" or "Agency"), by its attorney, hereby submits its rebuttal to comments filed by the Illinois Attorney General's Office ("AGO"), the Sierra Club and Environmental Law and Policy Center ("Sierra Club"), and the Citizens Against Ruining the Environment ("CARE"), on August 28, 2015.

Attorney General's Office Comments

The AGO filed comments requesting that the Board "reject the portion of the proposed rule amending the CPS claiming that the Agency's proposed amendments to Part 225, and its related changes to the nitrogen oxides ("NO_x") limitations in Part 217, are "unnecessary to accomplish the purpose of this rulemaking." (AGO Comments at 1). The AGO claims that the conversions of Joliet 6, 7, and 8 and Will County 3 "are not contingent on amending the CPS and are not contingent on the company receiving an exemption for Will County 4," despite the Agency's argument that the proposed revisions to Parts 214, 225, and 217 are "inextricably linked." (AGO Comments at 1-3). The AGO further argues that Board approval of a flue gas desulfurization ("FGD") exemption for Will County 4 would be "procedurally improper." (AGO Comments at 2).

The Agency disagrees with a number of the AGO's assertions, particularly its erroneous implication that Parts 217 and 225 can simply be removed from the rulemaking with no ramifications upon Part 214 or the Agency's attainment demonstration, as well as its incorrect contention that inclusion of the Will County 4 exemption is improper. The Agency opposes the AGO's suggestion that any portion of the Agency's proposed amendments be jettisoned from the rulemaking at this eleventh hour.

First, the AGO mischaracterizes the Agency's testimony regarding why the proposed revisions to Parts 214, 217, and 225 are inextricably linked, and incorrectly implies that removal of Parts 217 and 225 from this rulemaking would not require any changes to Part 214 or to the Agency's attainment demonstration. The Agency has explained that the proposed emission limitations in Part 214 for Joliet 6, 7, and 8, and Will County 3 are based upon the provisions in Part 225; these limits would need to be amended if the Board chose not to include the Agency's proposed changes to Part 225 in this rulemaking. (Agency Response to Board Questions 63, 66, and 67). Without Midwest Generation's agreement to deadlines after which the units above will be prohibited from combusting coal, the Agency would not have included limitations for these units in Part 214 that reflect the combustion of natural gas or diesel fuel. The Agency would have instead included in Part 214 modeling-driven limitations for these units as they currently exist, i.e., limitations necessary to demonstrate attainment of the sulfur dioxide ("SO_2") National Ambient Air Quality Standard ("NAAQS"). Such limitations would likely have been much higher (much less stringent) than the limits currently proposed by the Agency. (Agency Response to Board Question 66).

To determine these "new" limits, the Agency would need to undertake a new set of multi-iteration modeling – taking weeks or even months to complete – that would not impact Midwest

Generation alone. As previously discussed, the Agency's process involved examining which sources were impacting each nonattainment receptor in order to bring it into attainment. It is possible that other sources had an equal or greater impact on some nonattainment receptor in the model as compared to Will County 3 or Joliet 6, 7, and 8, but because of the voluntary efforts that Midwest Generation proposed taking in converting the units, the Agency never had to examine potential reductions from those sources. The Agency would now need to do so in order to determine whether some other company, not currently involved in these proceedings, might be impacted and need to make a reduction to offset the reductions that Midwest Generation offered. This would not only significantly delay the process of demonstrating attainment, but would potentially be unfair to any source that would need to be brought in for reductions at this late date. (Agency Response to Board Questions 63, 66, and 67).

The AGO argues that it is unaware of "any realistic scenario in which Midwest Generation would decide to stop conversion of Joliet and to 'un-retire' Will County 3 as a coal-burning unit." (AGO Comments at 3). Whether Midwest Generation would proceed with conversions of these units absent the Agency's proposed revisions to Part 225 is both unknown and irrelevant. The fact remains that the Agency would have no ability to enforce such conversions, and Midwest Generation would be under no obligation to permanently cease combustion of coal. Under different economic conditions, these units could theoretically be retrofitted to once again allow for coal use if the changes to Part 225 are not adopted by the Board. The Agency would thus need to undertake additional modeling to determine new, modeling-supported emission limitations for these units as they currently operate, as well as for any other units/sources that might now be "culpable" for purposes of nonattainment. The AGO's

implication that the limitations proposed by the Agency in Part 214 would remain the same if Part 225 were removed from this rulemaking is therefore incorrect.

There could potentially be additional negative ramifications of removing the proposed amendments to Parts 217 and 225 from this rulemaking as well. Removal of proposed revisions to Part 225 would include removal of revisions to Section 225.295(b), under which converted units are eliminated from the CPS averaging for SO_2; this amendment reduces the number of units in the average and thus the overall emissions allowed by the average. It would also include removal of revisions to Section 225.294 that clarify that converted units are not required to comply with mercury monitoring provisions set forth in the Illinois Mercury Rule/CPS, as such monitoring would be unnecessary. Finally, removing Parts 217 and 225 from the rule could cause considerable uncertainty for Midwest Generation regarding its obligations with respect to these units, such as the NO_x limitations applicable to any units that indeed convert to natural gas or diesel fuel and converted units' obligations under the CPS. (Agency Response to Board Question 63).

The AGO advocates to the Board that proposed provisions regarding the conversion of the above units and the FGD exemption for Will County 4 belong in a separate proceeding. The AGO goes so far as to claim that Board approval of an FGD exemption for Will County 4 would be "procedurally improper." (AGO Comments at 4-5). The AGO's claims are unfounded. They appear to be rooted in dissatisfaction with variances obtained by Midwest Generation in the past. The AGO cites an Illinois Supreme Court case indicating that variances cannot provide permanent relief. (AGO Comments at 7). This is not, however, a variance proceeding. It is a rulemaking, which is the proper venue in which to change regulations, including the CPS. The Agency often proposes, and the Board often adopts, rules seeking to amend more than one Part

of the Administrative Code at a time. There is absolutely nothing improper, procedurally or otherwise, with the Agency's inclusion of proposed amendments to Parts 217 and Part 225, including the proposed FGD exclusion for Will County 4, in this rulemaking proceeding. All of these proposed revisions have gone through public notice and comment and three public hearings. The Board's decisions in prior variance proceedings, and the AGO's opinion about those decisions, are irrelevant and insufficient justification for discarding any portion of the Agency's current rulemaking proposal.

Further, the AGO's claim now, when this rulemaking is near completion, that its participants should start from scratch, simply because handling these proposed amendments in a separate proceeding is the AGO's preference, undermines the efforts of the Board, Agency, and others who have participated in this matter. The AGO entered its appearance and attended hearings in this matter, and yet failed to ask questions or provide any public comments during the approximately five months since the Agency filed its proposal with the Board. During this time, the Agency, the Board, and others were expending considerable resources preparing testimony, questions, responses to questions, follow-up testimony, etc. regarding these provisions. The Agency itself responded to numerous questions from the Board, many of which regarded the proposed revisions to Part 225. Such efforts refute the AGO's claims that the Board needs a second, separate opportunity to weigh the merits of those provisions; the Board has already explored the merits quite extensively. These issues have been fully vetted by both the Board and the public, and no purpose would be served by severing the amendments at this stage of the proceedings. Bringing up the same issues in a separate action (in response to which, environmental groups will surely bring up the same arguments that the Agency has already addressed in this rulemaking) would be a poor use of the State's resources.

Whether or not the amendments to Parts 225 and 217 needed to be part of this rulemaking, the Agency proposed them as part of its attainment planning strategy for the SO_2 NAAQS. Doing so was well within the Agency's discretion, and has been fully supported by copious testimony, responses to questions, and information provided by the Agency. This rulemaking has satisfied all procedural requirements, belying any claims to the contrary and refuting any claims that these amendments should be jettisoned now, near the end of the rulemaking process.

Second, the AGO asserts that Midwest Generation's decision to convert certain units to natural gas or diesel fuel were business decisions intended to "increase the company's profits" (AGO Comments at 2), with the implication that profit drove Midwest Generation, not environmental benefit. This entire discussion, however, has no bearing on this rulemaking. Midwest Generation's motives are irrelevant. The fact that the company's environmental compliance planning efforts likely involved business and economic considerations is by no means a revelation, nor has it been denied by the Agency or by Midwest Generation itself. The AGO's implication that such considerations (including Midwest Generation's comments to shareholders, touting a cleaner and more economic compliance approach) somehow undercut the air quality benefits that will result from the conversions is a non sequitur.

Third, the AGO claims that there is no reason to link the conversions of Joliet 6, 7, and 8, and Will County 3 to the Agency's SO_2 planning efforts. (AGO Comments at 4). The Agency, however, has already explained repeatedly in this rulemaking the significant SO_2 emission reductions that will be achieved by the conversion of the above units, and that such reductions will aid attainment of the SO_2 NAAQS in the Lemont nonattainment area ("NAA"). (Technical Support Document ("TSD") at 10, 16-17; Statement of Reasons at 10-11; Transcript of 8/4/15

Hearing at 189-190; 8/28/15 Agency Post-Hearing Comments at 27). Since the Agency has addressed this multiple times, no additional response to this point is now needed.

Finally, the AGO states, "[T]he role of the Board is not to simply accept deals negotiated between regulators and industries." (AGO Comments at 7). The Agency agrees; rather, the Board's role is to examine actual facts and evidence before it and come to an objective conclusion regarding the impact of the Agency's proposal. In this case, the Agency has demonstrated: 1) that its proposal benefits air quality, which has not been refuted in these proceedings and which is not refuted now by the AGO (TSD at 13-17); 2) that the FGD exemption for Will County 4 and the conversion of Will County 3 together result in a 30-35% reduction in actual emissions at the Will County facility (Agency Response to Board Question 67(c)); 3) that the suite of amendments to Parts 225 and 217 results in significant reductions of SO_2, particulate matter, greenhouse gases, mercury, and likely significant reductions of NO_x (TSD at 16-17; Transcript of 8/4/15 Hearing at 189-190); and 4) that the Agency's proposal is sufficient to demonstrate attainment of the NAAQS (TSD at 8, 24-31; Agency Response to Board Questions; Transcript of 8/4/15 Hearing at 209-210). These are the supported facts in this proceeding that should form the basis of the Board's decision in this matter.

The Agency disagrees though with the AGO's concept that negotiations between the Agency and impacted industries should be disregarded by the Board. The Agency often spends years developing its rulemaking proposals, and in that time, reaches out to the regulated community to ascertain the impacts of its proposed amendments and whether those amendments are technically feasible and economically reasonable. Based on its outreach efforts, the Agency regularly incorporates requested changes into its regulatory proposals, but only after determining that such changes are both consistent with the purpose of the rulemaking at issue and protective

of the pertinent air quality standard. Such outreach and negotiations, which also include environmental groups and others, aid the Agency in its planning efforts and efficiently address issues prior to proposing a rulemaking to the Board.

Sierra Club Comments

Conservative Modeling

The Sierra Club claims that the Board should remand the proposed rule to the Agency to "rerun the modeling in a more conservative manner and require additional pollution controls." (Sierra Club Comments at 1). The Sierra Club incorrectly states that the Agency's modeling is not "conservative," claiming the Agency did not establish an emissions "cushion" in its model that will "guarantee[] compliance with the NAAQS limit even if there are marginal events," and that the Agency's modeling "leaves no room for error." The Sierra Club cites as supposed support for its claims that: 1) emissions from startup/shutdown/malfunction ("SSM") events for modeled sources not subject to Section 214.603 could cause NAAQS violations in NAAs; 2) the Agency's proposal does not regulate new minor sources in NAAs; 3) the Agency's proposed ultra-low sulfur diesel requirements cannot achieve a 99% reduction at modeled sources; and 4) the flares modeled by the Agency will have "much higher emissions during routine operations such as flaring off gases from SSM events when compared to pilot emissions." (Sierra Club Comments at 1-6).

As an overarching matter, the Agency has outlined the layers of conservativism in its proposal and modeling several times in this rulemaking, most recently in its post-hearing comments. (8/28/15 Agency Post-Hearing Comments at 35; *see also* TSD at 24). Not only is the SO_2 NAAQS a federal air quality standard designed to protect human health with an adequate margin of safety already built into the standard itself (Transcript of 8/4/15 Hearing at 209), but

the Agency went above and beyond that margin of safety in its modeling approach. The Agency included emissions from intermittent sources in its modeling, which is not mandated by the United States Environmental Protection Agency's ("USEPA") modeling guidance. The Agency also included in its modeling emissions from small sources, whether or not they caused a "significant concentration gradient" under federal regulations governing modeling. (Agency Response to Board Question 56; 8/28/15 Agency Post-Hearing Comments at 35). Finally, the Agency modeled allowable emissions, which constitutes the most conservative, "worst-case" scenario, as it assumes that all modeled sources are emitting at their maximum allowed rates, not their lower, actual emission rates. (TSD at 14).

Some of the Sierra Club's specific claims are plainly incorrect, some are irrelevant or unfounded, but none lend any credence to the Sierra Club's claim that the Agency's modeling is not sufficiently conservative, or that a speculative, undefined additional "cushion" is justified. First, in support of its argument that the Agency's modeling leaves "no room for error," the Sierra Club claims that, for modeled sources that are not subject to Section 214.603, emissions during SSM events could increase SO_2 concentrations in NAAs. The Agency's model follows USEPA's recommended approach of modeling sources' routine operations. The Agency did not model, and USEPA has not recommended that it model, emissions that may occur during SSM events. There is no possible way the Agency could begin to guess in its modeling the range of emissions that might occur during SSM events or the duration of such emissions for approximately 2,000 sources, nor are such guesses necessary. The Agency modeled these sources' maximum allowable emissions, currently enforceable via emission limitations in other regulations or permit conditions. These limitations generally apply during all hours of operation, just like the Agency's proposed emission limitations in Section 214.603. As discussed at

hearings, there is utterly no justification for the Board to treat those limits as less enforceable or protective of the NAAQS than the Section 214.603 limits.

Second, the Sierra Club claims that new minor sources may emit SO_2 in quantities that alone, or in combination with other minor sources, "can pose a threat" to the SO_2 NAAQS. It alleges that new minor sources "have no obligation to ensure that [they] do not contribute meaningfully to SO_2 concentrations in the region," that states have "permits by rule" under which sources are not required to analyze impacts of SO_2 emissions for minor projects, and that there is an Illinois "permit by rule" for emergency generators, allowing such units to obtain permits as long as their annual emissions are below 5,000 tons of SO_2/year. (Sierra Club Comments at 3). The Sierra Club failed to provide a citation for its claim that a permit by rule currently exists for emergency generators, and the Agency has no idea what such a claim is based upon. The Agency is unaware of any existing air permit by rule regulations in Illinois, including any applicable to emergency generators, and certainly not for sources that emit that great an amount of SO_2 (which is more than is emitted by most power plants). Moreover, the Agency has no current plans to develop permits by rule of the nature described by the Sierra Club. If it did, such rules would go through the Board rulemaking process and would be subject to public notice, hearing, and comment.

New minor sources, or minor modifications at major sources, are not expected to contribute significantly to ambient SO_2 concentrations. If the Agency has a concern in the future during the permitting process, it will address it at that time and undertake additional modeling. The Agency's current procedures are adequate to address any atypical instance when emissions from a new minor source, or several minor sources, risk threatening the NAAQS.

Next, the Sierra Club claims that flaring of gases "produces more emissions than IEPA's modeling has assumed." The Sierra Club alleges that the IEPA modeled "pilot rates," which "raise[s] concerns because modeled SO_2 emissions from flares would not reflect actual flaring episodes." (Sierra Club Comments at 3). The Agency is not sure what the Sierra Club means by "pilot rates." The Agency modeled non-upset conditions, i.e. units' usual operation, as recommended by USEPA. Flares have various purposes and frequency of use. For example, some flares are "backups" while others are an integral part of a continuous process. Regardless of type though, the Agency modeled flares at their maximum allowable emission rates. For Citgo, for instance, the Agency modeled the emission rates applicable to Citgo's flares under its federal consent decree. Again, the Agency cannot possibly model every possible hypothetical situation in which a flare may be utilized, including situations in which sources violate applicable emission limitations; this is the very reason the Agency follows USEPA's approach and models normal source/unit operation.

Regarding the Agency's proposed ultra-low sulfur diesel requirements, the Agency has already refuted the Sierra Club's claim that the Agency's proposed sulfur content limitations cannot achieve a 99% reduction in allowable (not actual) emissions. (*See* 8/28/15 Agency Post-Hearing Comments at 12-15). Regardless though, this percentage reduction that Sierra Club claims is suspect is actually irrelevant for purposes of the Agency's modeling, and thus offers no support for the Sierra Club's attack on such modeling. Whether or not the limits modeled by the Agency for these units represent a 99% reduction or a 10% reduction from current allowable emissions, the limits represent the maximum possible emissions from diesel-burning units under the Agency's current proposal, calculated based upon the maximum possible fuel use for each unit and the maximum sulfur content of the fuel. As the Agency has explained several times, the

Agency's modeling is therefore overly conservative and thus overestimates SO_2 emissions. (Transcript of 8/4/15 Hearing at 196; 8/28/15 Agency Post-Hearing Comments at 12-13).

Attainment Demonstration Modeling

The Sierra Club claims, "The attainment demonstration modeling should be part of the docket in this rulemaking." It further claims that other states make such modeling available for review as part of the SIP process. (Sierra Club Comment at 7).

The Sierra Club is incorrect in its implication that the information is not already available. The attainment demonstration modeling is part of the public record in this rulemaking. The Agency submitted the modeling information to the Board in response to Board questions, and it has subsequently been publically available as part of this docket. (Agency Response to Board Question 55). The Agency has also itself made the modeling information available to anyone who has asked for it, including the Sierra Club. The modeling has therefore been made publically available, the Agency has provided testimony regarding it, and the Agency staff member who conducted the modeling was available at all three public hearings to answer questions about it, refuting any lingering claims by the Sierra Club that more information is needed.[1]

[1] The Sierra Club notes that the Agency provided to the Sierra Club its draft attainment demonstration, which is a narrative of the Agency's modeling efforts to be submitted to USEPA alongside the Agency's modeling. The Agency generally does not share this draft document prior to the Board finalizing the rule, as it must be based on final, adopted rules. The Agency in fact explained in great detail at hearing and in its post-hearing comments why an attainment demonstration generally is not, and for practical purposes, cannot, be taken through public notice and comment or finalized prior to Board adoption of a rule. (*See* Transcript of 8/4/15 Hearing at 197-199; 8/28/15 Agency Post-Hearing Comments at 34-35). The Agency only provided the draft to the Sierra Club in an effort to address some of its concerns. This document will be made public and open for comment, but only once the Board adopts a final rule and the Agency is able to finalize the demonstration.

Will County 4 FGD Exemption

The Sierra Club argues that the Board should not approve an FGD exemption for Will County 4 "because reductions at Will County 4 have a different impact on the [NAA] than reductions at Joliet." (Sierra Club Comments at 8). The Sierra Club then goes on to compare the impact of emissions from Will County 4 to the impact of emissions from Joliet 6, 7, and 8 upon the highest impacted receptors in the NAA.

The Agency's attainment strategy, however, was not based, nor can it be based, on one or two receptors. The Agency is required to demonstrate attainment at each of the thousands of receptors in the Lemont NAA. As has been described at length by the Agency, the package of amendments proposed by Midwest Generation results in significant reductions of SO_2 in the Lemont NAA as a whole – more reductions in fact than would be achieved by the CPS as it currently exists (likely even with installation of FGD equipment on Will County 4, as Midwest Generation would still only be required to comply with a fleet-wide SO_2 average). (Agency Response to Board Question 66). Those living in the Lemont NAA will enjoy significant air quality benefits from the conversions of not only the Joliet units but of Will County 3 as well. The conversion of Will County 3 coupled with the FGD exemption for Will County 4 will still result in reductions of actual emissions at the Will County facility, a fact ignored in the Sierra Club's "comparisons."

The Sierra Club next claims, once again, that the CPS should not be amended to include an exemption for Will County 4 because Midwest Generation agreed to, opted into, and benefitted from the CPS. The Sierra Club belabors the claim that the CPS was negotiated and that it benefited Midwest Generation, arguing that Midwest Generation's attempt to renegotiate the "deal" now "is an unjustified effort to keep hold of those benefits while dispensing with the

one [sic] of its obligations." (Sierra Club Comments at 12-13). The Sierra Club also encourages the Board to view the proposed FGD exemption for Will County 4 in isolation, apart from the four Midwest Generation units converting to natural gas or diesel fuel. (Sierra Club Comments at 13).

What the Sierra Club fails to acknowledge though is that almost every Board rulemaking proposed by the Agency reflects some level of negotiation, either with the regulated community or with other interested parties – generally both. Negotiation does not preclude future amendments to a rule; otherwise, few existing regulations could ever be amended, even to make standards more stringent.[2] More importantly here though, while Midwest Generation's supposed "renegotiation" involved elimination of one obligation, it also came with deadlines after which four of the company's units will be prohibited from combusting coal, something that was never contemplated when the CPS was written. Midwest Generation may have benefited from the CPS, but air quality will now benefit from these proposed amendments even more so than under the originally-negotiated CPS. This is the very reason the Board should not do as suggested by the Sierra Club and put blinders on to the environmental benefits reaped from Midwest Generation's voluntary efforts – benefits that go above and beyond what the Agency would likely have required to reach attainment alone. (Transcript of 8/4/15 Hearing at 189-190; Agency Response to Board Question 66).

The Agency has set forth in great detail its justification for the Will County 4 exemption. The Illinois EPA has established that the exemption is protective of air quality and refuted the Sierra Club's unsupported claims that the exemption leaves the Will County area vulnerable to NAAQS violations. (Statement of Reasons at 8-12; Transcript of 8/4/15 Hearing at 189-194;

[2] Contrary to Sierra Club's implications, "once in, always in" provisions, variations of which appear throughout the Board's regulations, do not prohibit future rule amendments. (Sierra Club Comments at 13).

Agency Response to Board Questions 47, 48, 50, 66, 67). If the Board should decide that even more is necessary however, the Agency provided the Board in its post-hearing comments a possible option for lowering Will County 4's allowable emission limitation in Section 214.603 by approximately 23%, which would translate to a reduction of roughly 30 $\mu g/m^3$ in the modeled design value at the currently most impacted receptor in the Lemont NAA (as well as reductions at all other nearby receptors). While lowering the limit is unnecessary, and therefore the Agency is not recommending that the Board do so, the lower limit would even further undercut the Sierra Club's claim regarding lack of conservatism in the Agency's modeling. It would create an even greater margin of safety than already exists in the Agency's current proposal and render the installation of FGD equipment at Will County 4 even more unwarranted.

Regional Haze/BART SIP

The Sierra Club claims that the Board should reject an FGD exemption for Will County 4 because such exemption "conflicts" with the Agency's Regional Haze SIP. The Sierra Club states that the Agency relied upon the CPS, including the "commitments" of coal-fired EGUs, and thus "Will County 4's commitment is among the policies being relied upon." (Sierra Club Comments at 14).

The Sierra Club is grasping at straws. While the Agency submitted with its Regional Haze SIP the provisions of Part 225 regarding control technology requirements, the Agency relied solely upon the reductions expected from the CPS's mass emission limitations, as they were the only reductions that could be reasonably quantified. The Agency used the same methodology for estimating annual emission reductions in the technical support for this rulemaking as was used in the technical support for its Regional Haze SIP submittal.

The Agency has already analyzed its proposed amendments to the CPS, including the requirement that Joliet 6, 7, and 8 and Will County 3 cease combusting coal and the FGD exemption for Will County 4, and determined that they will not negatively impact Illinois' Regional Haze SIP. In its TSD, the Agency explained:

> Sections of Part 225 directed at emissions of SO_2 and NOx have been included in SIP submittals to USEPA for regional haze rules. These amendments will therefore be submitted to USEPA as revisions to Illinois' regional haze SIP. Illinois EPA analysis of the proposed amendments to Part 225 and the estimated emissions from Table 4 above show that the proposed amendments will result in significant reductions in the emission of SO_2 . . . In light of the overwhelmingly positive environmental benefit resulting from the entirety of the proposed amendments, Illinois EPA anticipates that SIP revisions to include the proposed amendments will be approved by USEPA.

(TSD at 17-18). The conversions and Will County's FGD exemption will together result in significant SO_2 reductions that should do nothing but bolster the Agency's Regional Haze SIP.

Powerton 30-Day Average

In its comments, the Sierra Club requests that the Board set a "supplemental limit on the magnitude and frequency of spikes at Powerton," such as setting a monthly limit on the number of times emissions can exceed 6,000 lb/hr. (Sierra Club Comments at 17-19). It again asks the Board to substitute the Sierra Club's opinions about USEPA's guidance and how it should be interpreted in place of USEPA's own, contrary interpretations; indeed, the Sierra Club refuses to acknowledge the position USEPA Region V has taken in this matter. As the Agency explained in detail in its post-hearing comments, Region V, interpreting USEPA's own guidance, has determined that Powerton's 30-day average is consistent with such guidance and sufficient to protect the SO_2 NAAQS. (8/28/15 Agency Post-Hearing Comments at 19-23). Considering this determination and that a supplemental limit is not necessary to attain the standard, such a limit is not recommended by the Agency.

Having said that, should the Board determine a supplemental limit is necessary for adoption, the Agency presented the Board with a possible option in its post-hearing comments. (8/28/15 Agency Post-Hearing Comments at 23-24). The Agency set forth a supplemental limit that restricts the number of operating hours in each 30 operating day averaging period that emissions from the Powerton unit can exceed 6,000 lb/hr. The Agency has confirmed with Midwest Generation that this limit is achievable, and has confirmed with USEPA Region V that it is approvable. (8/28/15 Agency Post-Hearing Comments at 23-24). This limit is of the type requested by the Sierra Club, and if the Board determines a supplemental limit is necessary, should be the limit promulgated by the Board. The Agency strongly opposes adoption of any other supplemental limit, as there would be uncertainty regarding whether the limit is achievable by Midwest Generation and is approvable by USEPA Region V. Likewise, while the Sierra Club did not request a shorter averaging period for Powerton, the Agency would also strongly oppose such a change for the same reasons set forth above.

Restating Existing Emission Limitations for 2,000 Sources

The Sierra Club requests that the Board restate in this rule the existing emission limitations modeled by the Agency for approximately 2,000 sources. The Agency does not understand why the Sierra Club continues to request that the Board restate in this rule emission limitations already enforceable under other Board rules and Agency permits; it would be a useless exercise serving absolutely no purpose, and would result in redundant, lengthy regulations. (8/28/15 Agency Post-Hearing Comments at 13-14, 16-17). It would also be, to the Agency's knowledge, unprecedented (likely because it serves no purpose).

The Sierra Club claims that these limits are needed because "there is no basis" for the Agency's testimony that it based its modeled limits on currently enforceable regulations and

permits. (Sierra Club Comments at 19). This is untrue. While the bulk of the testimony of the Sierra Club's witnesses rested on opinion alone, the testimony of the Agency's witnesses was based on objective evidence. The Agency itself conducted the modeling, and testified to the above facts under oath. (Transcript of 7/29/15 Hearing at 43-44, 60). This is sufficient evidence, and is indeed more evidence than Sierra Club has provided for the majority of its claims in this rulemaking.

CARE Comments

As a preliminary matter, CARE makes several incorrect or confusing statements that require correction/clarification:

1) CARE states that several CARE members testified at the second hearing in this matter. (CARE Comments at 1). No one representing CARE offered testimony subject to cross-examination at any of the three hearings in this rulemaking. CARE members rather provided public comments.

2) CARE urges the Board to "reject the Illinois EPA's proposal to grant regulatory relief to Will County 4." (CARE Comments at 1). The Agency's proposal is one for rule amendments, not for regulatory relief.

3) CARE cites to Section 225.291 of the CPS, which indicates that the CPS establishes permanent emission standards for specified EGUs. CARE then states, "These permanent, unit specific emission standards explicitly include the application of pollution control technology for SO_2 emissions." (CARE Comments at 3). No, they do not. First, the CPS does not contain, and has never contained, unit-specific SO_2 emission standards. The CPS contains only fleet-wide average SO_2 emission standards. Second, those standards do not explicitly include the application of pollution control technology. CPS Group mass emission standards for SO_2 are set forth in Section 225.295(b). Control technology requirements for SO_2 are set forth in Section 225.296. Whether or not a specific unit like Will County 4 installs FGD, the SO_2 emission limits remain the same.

4) Similarly, at one point, CARE claims that the above is the "Agency's approach" to the CPS – "the better controlled these distant units [Waukegan and Powerton], the greater the emissions that would be allowed from Will County 4." (CARE Comments at 10). This is not the Agency's approach. This is how the CPS is written. The CPS sets forth emission limitations that the CPS Group units must meet on a fleet-wide average basis, meaning if one unit over-controls, another unit

can under-control, as long as the overall average is at or below the limit. This is based on the plain language of the CPS, and is how it has operated since its inception.

5) CARE argues that the "proposed alternative SO_2 standard [for Will County 4] based on fleet averaging is overly speculative, and allows averaging with units that operate at a great distance from the Lemont SO_2 [NAA]." (CARE Comments at 9). The Agency does not know what provisions CARE is referencing. The Agency has not proposed an "alternative SO_2 standard" for Will County 4, let alone one that is "based on fleet averaging." As explained above, the Agency is not prosing to change the fleet-wide average emission limitations for the CPS Group (which includes Will County 4), or to establish "alternatives" for them. To the extent CARE is confusing the CPS with Part 214 Subpart AA, the proposed limitation for Will County 4 in Section 214.603 of Subpart AA is an hourly emission limit for that specific unit. It is separate from, and in addition to, the fleet-wide average emission limitation that Will County 4 is already subject to under the CPS, which limits emissions from the CPS Group as a whole, not emissions from any individual unit.

Generally, CARE argues that the Board should not adopt an FGD exemption for Will County 4. First, CARE claims that such an exemption "is inconsistent with clear, longstanding CPS regulatory requirements that are unit specific and permanent." (CARE Comments at 2). CARE alleges that the CPS did not authorize the transfer of the FGD exemption for Joliet 6 to another unit. (CARE Comments at 2-4). These arguments, however, are rooted in the erroneous concept that regulations, once adopted, are permanent and unchangeable. No regulatory requirement is truly permanent, as no regulation is immune from being amended. CARE may not like the substance of the Agency's proposed amendments, but the idea that the Agency's amendments should be rejected because the CPS is etched in stone is unsound, particularly when considering proposed changes like those currently before the Board that significantly improve air quality.

Indeed, from an air quality standpoint, it is fortunate that the CPS is not "permanent," as the CPS did not contemplate the conversion of coal-fired EGUs to natural gas or diesel fuel. CARE (and truly, all of the entities that have argued the sanctity of the CPS) likely has no

qualms with changing the CPS to require four coal-fired units to convert to cleaner fuels. Additionally, absent the Agency's proposed amendments to Section 225.295(b), converted units would arguably remain part of the SO_2 fleet-wide emission average, which would enable massive increases in allowable emissions from the remaining coal-fired units in the fleet. As proposed, the Agency's amendments instead exclude converted units from the average, resulting in significant reductions in SO_2 emissions. The Agency doubts that CARE would argue against these amendments by citing the inviolate nature of the CPS.

Next, CARE argues that Will County 4 and Joliet 6 are not comparable units. (CARE Comments at 5). The apt comparison, however, is between Will County 4 and the group of all four units converting to natural gas or diesel fuel. This is indeed the comparison that has been made by the Agency, and the comparison the Board should consider in adopting the Agency's proposal. If adopted, one unit at Midwest Generation will be exempted from installing FGD, but four Midwest Generation units, including one at the Will County facility, will be prohibited from combusting coal. The Lemont NAA will enjoy reductions of more than 6,000 tons of SO_2 annually in 2017, and more than 4,500 tons of SO_2 annually in 2019 and subsequent years, beyond what would occur under the current CPS limits, as well as significant reductions in particulate matter, greenhouse gases, mercury, and NO_x.

As part of its "Will County 4 vs. Joliet 6" comparison, CARE points out that Will County 4 is within the boundaries of the Lemont NAA and Joliet 6 is not. The Agency agrees. CARE goes on, however, to claim that Joliet 6 "does not contribute to nonattainment in the Lemont area," citing the technical support document that accompanied the Agency's nonattainment area recommendations to USEPA. (CARE Comments at 7). The Agency has already demonstrated in its post-hearing comments and elsewhere that CARE's assertion is false, and that the Joliet units

are all contributing to nonattainment in Lemont. (TSD at 8; Agency Response to Board Question 26; 8/28/15 Agency Post-Hearing Comments at 30). The Sierra Club itself concedes this point in its post-hearing comments, admitting, "These modeling results show that Joliet emissions do impact the [Lemont] Nonattainment Area." (Sierra Club Comments at 9). The Agency also explained in its post-hearing comments that any reference to the Agency's nonattainment area recommendation is misplaced, as it was not based on an in-depth modeling analysis but rather on monitoring data and a five-factor analysis aimed toward determining likely contributors to nonattainment. (*See* 8/28/15 Agency Post-Hearing Comments at 30-31).[3]

CARE fails to address or refute that modeling clearly demonstrates contributions from the Joliet units in the Lemont NAA. It cites only to low SO_2 concentrations at a Joliet monitor previously located southeast of the Joliet facility. As the Agency explained in post-hearing comments, the Lemont NAA is north and northeast of the Joliet station – in essentially the opposite direction as the Joliet monitor referenced above. When winds blow emissions from the Joliet units toward the Lemont NAA – which is the most prevailing wind direction in that area – the emissions are being blown *away* from the location of the Joliet monitor. SO_2 concentrations at this monitor therefore provide no insight into the impact of the Joliet facility on nonattainment in Lemont.

Next, as mentioned above, CARE argues, "The Agency's proposal for an alternative SO_2 emission standard for Will County 4 is speculative and premature." (CARE Comments at 9). CARE indicates that more information is needed regarding the effectiveness of FGD at Powerton

[3] CARE points to sources the Agency "focused on" in its nonattainment area recommendation technical support document, one of which was Oxbow Midwest Calcining. (CARE Comments at 8). This source was the most culpable source for monitored nonattainment in the Lemont area. If the Agency were only concerned with monitored values, the Agency could perhaps have regulated Oxbow alone to demonstrate monitored attainment. As explained above, however, the Agency is required to demonstrate modeled attainment instead, utilizing conservative assumptions that provide a considerable margin of safety.

and Waukegan; otherwise, it is not "possible to determine the SO_2 limits that would apply to Will County 4 as part of a fleet-averaged emission limit or to determine how a fleet-averaged emissions rate will affect SO_2 ambient air quality conditions in the Lemont nonattainment area." (CARE Comments at 9-11). It is difficult to address these claims, as they are not only confusing, but also appear to be based on a serious lack of understanding of the current CPS, as:

1) The Agency is not proposing changes to the emission limitations in the CPS.

2) The Agency is not proposing any "alternative SO_2 emission standard for Will County 4," in the CPS or in the Agency's proposed Section 214.603.

3) As such, no information regarding the effectiveness of FGD at Powerton or Waukegan is needed to "determine the SO_2 limits that would apply to Will County 4 as part of a fleet-averaged emission limit." The fleet-wide average emission limitations in the CPS <u>are not changed</u> by this rulemaking – the same fleet-wide emission limitations that currently apply to the CPS Group, which includes Will County 4, will continue to apply regardless of whether or not Will County 4 is required to install FGD. This is how the CPS was designed. This is the point, however, that appears to be entirely missed by CARE, at least based on the Agency's reading of its comments.

4) Likewise, no information regarding the effectiveness of FGD at Powerton or Waukegan is needed to "determine how a fleet-averaged emissions rate will affect SO_2 ambient air quality conditions in the Lemont nonattainment area." CARE seems to be under the impression that the Agency is relying on the fleet-wide average emission rates in the CPS to demonstrate attainment of the 1-hour NAAQS. It is not, and cannot. The Agency has made efforts throughout the rulemaking process to illustrate the distinction between fleet-wide annual emission rates in the CPS and <u>hourly</u> emission rates necessary for modeled attainment of the SO_2 NAAQS. Will County 4 is subject only to a group average emissions rate under the CPS, which is not being altered in this rulemaking; it is subject to a unit-specific hourly emission rate under the Agency's proposed 214.603, upon which the Agency will rely for demonstrating attainment of the NAAQS.

   The hourly limits proposed in Part 214 Subpart AA are not speculative. They are the emission rates necessary to demonstrate attainment of the NAAQS under the Agency's current proposal.

5) No information regarding the effectiveness of the FGD equipment at Powerton and Waukegan would inform any of the issues in this rulemaking. The Agency can only assume that CARE's request for such information is also based on its

> confusion and lack of understanding regarding how the CPS operates, and regarding the difference between the fleet-wide limits in the CPS and the Agency's proposed hourly limits in Section 214.603.

CARE next argues that the Board should not adopt the FGD exemption for Will County 4 because there are regulatory relief mechanisms available to Midwest Generation. (CARE Comments at 11). Rule amendments, however, are also available, and considering the proposed amendments currently before the Board, are the more appropriate and efficient option. As explained above, these amendments were part of the Agency's outreach efforts, and in the last five months have been fully vetted by participants in this rulemaking, including the Board. Forcing participants, including the Agency, to address identical issues in a separate proceeding would be wasteful of the State's resources.

Finally, CARE erroneously claims that certain information "gaps" exist in the Agency's proposal, and it sets forth questions that it claims need to be answered. As explained above, CARE's questions regarding the control effectiveness of FGD at Waukegan and Powerton are irrelevant to any of the issues in this rulemaking. These questions and several others again reflect CARE's gross misunderstanding of the CPS. For example, CARE asks, "In light of the actual effective rate of FGD SO_2 control at Waukegan and Powerton, what is the actual SO_2 emission standard at Will County 4 in a fleet averaged scenario?" (CARE Comments at 12). FGD effectiveness at Waukegan and Powerton have no bearing whatsoever on the fleet-wide average limitation applicable to Will County 4 under the CPS; again, there are no unit-specific emission limits in the CPS. The CPS applies on an annual basis and includes the entire Midwest Generation CPS fleet. These fleet-wide average emission limits stay the same regardless of FGD effectiveness at units in the fleet.

Other questions have already been answered by the Agency, some repeatedly. First, CARE asks, "What are the actual, observed effects of the SO_2 control regimes (for both [Midwest Generation] and other sources) on ambient air quality conditions in the Lemont [NAA]?" (CARE Comments at 12). The Agency's proposal will provide emission reductions that will achieve modeled attainment of the NAAQS. (TSD at 8, 24-31; Agency Response to Board Questions; Transcript of 8/4/15 Hearing at 209-210). The Agency's proposal likely requires more stringent measures than would actually be required to demonstrate attainment due to the layers of conservative assumptions in the Agency's dispersion modeling, discussed above.

Second, CARE asks, "How do different control scenarios for Will County 4 affect compliance and maintenance with the SO_2 NAAQS in the Lemont [NAA]?" (CARE Comments at 12). The control scenario that involves Will County 4 emitting 6,520 lb/hr, as proposed by the Agency in Part 214 Subpart AA, will achieve compliance and maintenance with the SO_2 NAAQS in the Lemont NAA. (Agency Response to Board Question 50; *see also* TSD at 8, 24-31; Transcript of 8/4/15 Hearing at 209-210). While the Agency has not modeled other scenarios, further reductions of emissions would not affect compliance and maintenance with the NAAQS, since compliance is achieved by the proposal. Other modeled scenarios may show lower SO_2 concentrations at various receptors in the model, but these lower values are not required to attain or maintain the standard. (*See* Agency Response to Board Question 47, 50).

Third, CARE asks, "What are the effects of Will County 4 SO_2 emission on human and ecological receptors located in proximity to the facility and/or its most intense pollutant deposition areas, under different control scenarios?" The scenario that the Agency has modeled shows attainment of the NAAQS at all receptors. (Agency Response to Board Question 50; *see also* TSD at 8, 24-31; Transcript of 8/4/15 Hearing at 209-210). The NAAQS is a standard that

the USEPA has deemed to be protective of human health and other secondary concerns, with a margin of safety built in to that standard. The Agency's conservative modeling assumptions used by the Agency add additional margins of safety. (8/28/15 Agency Post-Hearing Comments at 35). Other modeled scenarios with lower emissions may show lower modeled concentrations above and beyond what is necessary to achieve the NAAQS.

Finally, CARE asserts to the Board that requiring that Midwest Generation go through a regulatory relief process to obtain an exemption for Will County 4 would allow the Agency to "retain its independence." It then urges participation in such regulatory relief process by "an entirely independent, fully informed and rigorous Illinois EPA." (CARE Comments at 13). The Agency is first and foremost offended by CARE's attempt to impugn the integrity of the Agency. The Agency is also dumbfounded at CARE's implication that working with stakeholders to present a proposal to the Board that is both achievable by impacted sources and protective of air quality is inappropriate, or a practice to be discouraged. Under CARE's apparent thought process, if negotiation and compromise renders the Agency something other than "independent," the Agency could not conduct outreach at all, including with environmental groups. CARE cannot escape the hypocrisy of criticizing the Agency's outreach efforts with the regulated community, while surely encouraging the Agency's outreach efforts with groups such as itself. In fact, the CPS provisions that CARE now considers inviolable were the product of just such a process.

Conclusion

The Agency has presented the Board with a rulemaking proposal that is based on careful, conservative modeling performed in accordance with USEPA's modeling guidance, and that is protective of the SO_2 air quality standard with a considerable margin of safety. The Agency has

fully supported its proposal with technical information, testimony, and responses to questions, which contained all requested explanation and information.

None of the comments submitted by the AGO, Sierra Club, or CARE warrant the changes they request, nor did any of these commenters provide sufficient objective evidence to support such requests. Their requested changes include: 1) requiring Will County 4 to install multi-million dollar control technology that is not needed to protect air quality; 2) requiring Powerton to comply with a supplemental limitation that USEPA itself has determined is unnecessary to protect the SO_2 NAAQS; 3) discarding portions of the Agency's proposal that have already been through five months of scrutiny, including three public hearings, based on the preferences of one participant; and 4) requiring the Agency to spend months undergoing unnecessary additional modeling, when its current modeling is not only conservative but is also fully compliant with USEPA's modeling recommendations and sufficient to demonstrate attainment of the NAAQS.

The Agency therefore urges the Board to adopt the rule amendments as proposed by the Agency.

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Dana Vetterhoffer
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DATED: September 11, 2015

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BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

IN THE MATTER OF:	)	
	)	R15-21
AMENDMENTS TO 35 ILL. ADM. CODE	)	(Rulemaking-Air)
PART 214, SULFUR LIMITATIONS, PART	)	
217, NITROGEN OXIDES EMISSIONS,	)	
AND PART 225, CONTROL OF EMISSIONS	)	
FROM LARGE COMBUSTION SOURCES	)	

CERTIFICATE OF SERVICE

I, the undersigned, an attorney, affirm that I have served the attached Rebuttal Comments of the Illinois Environmental Protection Agency upon the following person(s) by e-mailing it to the e-mail address(es) indicated below:

Daniel Robertson, Hearing Officer
Illinois Pollution Control Board
daniel.robertson@illinois.gov

I affirm that my e-mail address is dana.vetterhoffer@illinois.gov; the number of pages in the e-mail transmission is 29; and the e-mail transmission took place today before 5:00 p.m.

I also affirm that I am mailing the attached by first-class mail from Springfield, Illinois, with sufficient postage affixed, to the following persons:

SEE ATTACHED SERVICE LIST

ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: /s/ Dana Vetterhoffer
Assistant Counsel

DATED: September 11, 2015

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