

US EPA ARCHIVE DOCUMENT

**BEFORE THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Rule to Reduce Interstate Transport)
of Fine Particulate Matter and Ozone)
(Clean Air Interstate Rule); Revisions)
to Acid Rain Program; Revisions to)
the NOx SIP Call – 70 Fed. Reg. 25,162)
(May 12, 2005))

Docket No. OAR-2003-0053

PETITION FOR RECONSIDERATION AND REQUEST FOR STAY

Minnesota Power (MP), a division of ALLETE, Inc., hereby requests that EPA reconsider elements of the above-captioned final rule pursuant to section 307(d)(7)(B) of the Clean Air Act, 42 U.S.C. § 7607(d)(7)(B). MP additionally requests that the Agency stay the effectiveness of the final rule in the State of Minnesota pending reconsideration and appropriate Agency action. As shown in this petition, numerous legal, factual and policy reasons support EPA's revising the Clean Air Interstate Rule (CAIR) to exclude Minnesota, or a portion of the State, from the states to which CAIR is applicable; EPA erred in concluding otherwise. Key points that support such revision and stay of CAIR applicability in Minnesota are as follows:

- Minnesota is in attainment for all National Ambient Air Quality Standards.
- Minnesota's electric utilities are already well-controlled and will be even better controlled based upon programs already scheduled to be implemented; for example, more than 70% of MP's coal-based electric generation capacity in Minnesota is wet-scrubbed and all units burn low sulfur, low mercury western subbituminous coal.
- Minnesota is implementing voluntary emission reductions under programs such as Clean Air Minnesota and the Xcel Energy Metropolitan Emission Reduction Program (MERP) that were not considered when EPA initially determined that Minnesota would significantly contribute to PM_{2.5} nonattainment in two counties in the State of Illinois.

- In EPA's CAIR Response to Comments (RTC), EPA acknowledges that certain emission reductions that will occur prior to 2010 were not taken into account and it attempts to adjust for those emission reductions, with the result that EPA concludes that the "adjusted maximum PM_{2.5} contribution is 0.2 µg/m³."
- EPA's RTC thus shows that EPA has already concluded that Minnesota emissions will not exceed the significant contribution threshold of 0.2 µg/m³.
- EPA appears to have used emission rates that are too high for a number of Minnesota units in modeling Minnesota's contribution to downwind PM_{2.5} nonattainment, resulting in an apparent overstatement to such an extent that Minnesota would, if corrected, be below the PM_{2.5} threshold.
- A review of the computer model predicted air quality impacts and ground level monitoring data show that Minnesota contributions will be less than computer model predicted values, further demonstrating that Minnesota is not contributing significantly to downwind pollution levels.
- The unreasonableness of Minnesota being subjected to CAIR is further shown by the fact that Minnesota's utilities will receive disproportionately low allowance allocations due to their being well-controlled and using low sulfur coal in the baseline period for the Acid Rain Program, resulting in CAIR imposing requirements that cannot in any way be characterized as "highly cost-effective."
- The allowance allocation methodology is highly inequitable to states such as Minnesota with low-emitting utilities and, if EPA's scheme is to be retained, this inequity, together with the discrepancy between modeled emission analyses and monitored measurements, supports establishing a higher significance threshold, which would result in Minnesota being excluded from CAIR applicability.

MP's Petition for Reconsideration clearly satisfies the statutory requirements for obtaining reconsideration of a final rule. As demonstrated below, certain key determinations were promulgated without meeting the notice-and-comment requirements of the Clean Air Act (Act). The failure to meet these notice-and-comment requirements means that MP's objections satisfy the criteria in section 307(d)(7)(B) for granting reconsideration of a rule. Because meaningful comment is critical for determining CAIR's applicability in Minnesota, it is imperative that EPA stay the effectiveness of the final rule during the reconsideration proceedings pursuant to section 307(d)(7)(B).

I. MP's PETITION FOR RECONSIDERATION MEETS THE STATUTORY REQUIREMENTS FOR OBTAINING RECONSIDERATION OF A FINAL RULE.

A. EPA Must Convene A Reconsideration Proceeding As Specified Statutory Criteria Are Met.

Section 307(d)(7)(B) of the Act provides a mechanism by which a party may obtain reconsideration of the rule where the party could not raise certain objections during the public comment period on the rule. If the statutory criteria are satisfied, EPA is required to convene a reconsideration proceeding. Section 307(d)(7)(B) states in relevant part that “the Administrator shall convene a proceeding for reconsideration of [a] rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed” in either of two situations: “[1] if the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within [the public comment period] or [2] if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule. . . .”

If EPA refuses to convene a reconsideration proceeding, the party seeking reconsideration may seek judicial review of that action in the appropriate United States Court of Appeals, in this case the D.C. Circuit. *Id.* MP filed a timely petition for review of CAIR in the D.C. Circuit. *Minnesota Power v. EPA*, No. 05-1246.

In this petition for reconsideration, MP raises objections to CAIR that it could not have raised during the public comment period. Those objections, which concern the Agency's failure to comply with the notice-and-comment requirements of section 307(d) with regard to certain determinations on which the final rule is based, are necessarily ones that MP could not have raised during the public comment period and clearly are “of central relevance to the outcome of

the rule.” Accordingly, MP’s objections come within the language of section 307(d)(7)(B) quoted above.

B. The Notice-And-Comment Violations Compel EPA To Grant MP’s Reconsideration Petition.

As discussed below, EPA violated the notice-and-comment requirements of sections 307(d)(3) and (5) of the Act by utilizing a different model and shifting the data base used to determine downwind PM_{2.5} contributions and not providing a meaningful opportunity to submit necessary data for use in applying such model to Minnesota PM_{2.5} emissions, as well as by establishing the significant contribution threshold for PM_{2.5} in the final rule without providing notice and an opportunity for public comment on that threshold. An agency’s proposed rule must “provide sufficient detail and rationale for the rule to permit interested parties to comment meaningfully.” *The Fertilizer Inst. v. EPA*, 935 F.2d 1303, 1311 (D.C. Cir. 1991) (quoting *Florida Power & Light Co. v. United States*, 846 F.2d 765, 771 (D.C. Cir. 1988), *cert. denied*, 490 U.S. 1045 (1989)).

Under controlling case law, a party that proves that a notice-and-comment violation occurred in a rulemaking under section 307(d) of the Act has necessarily established that its “objection is of central relevance to the outcome of the rule” within the meaning of section 307(d)(7)(B). In *Shell Oil Co. v. EPA*, 950 F.2d 741, 752 (D.C. Cir. 1991), the Court broadly held that a party that demonstrates a notice-and-comment violation is not additionally required to show prejudice resulting from the agency’s failure to provide notice and an opportunity to comment. The Court will presume that prejudice has resulted and that the relevant provision should be set aside. Accordingly, the reasoning of *Shell* leads to the conclusion that, where a notice-and-comment violation is proven, the objection is necessarily “of central relevance to the outcome of the rule.”

Below we demonstrate that notice-and-comment violations occurred in connection with key aspects of the final rule. In addition, although there is no requirement that MP additionally show that its comments would have changed the final rule to establish that its objections were “of central relevance to the outcome of the rule,” we nonetheless discuss the importance of the comments MP or other interested parties could have made if proper notice had been provided.

1. MP Did Not Have A Meaningful Opportunity To Review The Modeling And Data EPA Relied On In Concluding That Minnesota May Be Significantly Contributing To PM_{2.5} Nonattainment In Another State.

During the course of the CAIR rulemaking proceeding, EPA changed both the computer model used in determining CAIR applicability and the data base applied in its computer modeling. The data available for public review at the time of issuance of the Notice of Proposed Rulemaking, Supplemental Notice, Notice of Availability, and Final Rule constituted a moving target for those wishing to provide comment on EPA’s models and data being applied in the models. Of particular importance, MP did not have an opportunity to review EPA’s analysis used in making the final CAIR determination that Minnesota will contribute significantly to out-of-state PM_{2.5} nonattainment, until EPA posted documents in March of 2005 in connection with release of the final CAIR. Based on its post-adoption review, MP has concluded that the modeling and data used in determining Minnesota’s contribution to downwind PM_{2.5} nonattainment has a number of flaws. If corrected, MP strongly believes that the modeling will show that Minnesota’s contribution will be less than the 0.2 µg/m³ PM_{2.5} threshold.

EPA’s analysis appears to be based on SO₂ emission rates that are higher than those that should have been included. As MP advised EPA, the actual emission rates for the referenced MP units are significantly lower than allowable emissions. *See Attachment A – “Minnesota Power’s Plant Emission Rates Are Low.” See also, Letter from Michael G. Cashin, Minnesota*

Power, to Sam Napolitano, EPA, dated May 10, 2005. Overall, actual emission rates of SO₂, NO_x and particulates for those units are only about 30% of allowable levels. See August 24, 2004 Presentation Notes for Meeting with Assistant Administrator Holmstead, et al. Based upon MP's review of EPA's analysis, EPA appears to have concluded that Minnesota's SO₂ emissions in 2010 would be about 143,000 tons. MP's actual SO₂ emissions are expected to be about 28,000 tons based upon 2003 production data. MP believes that SO₂ emissions from other sources are not sufficient to result in a total as high as was included in EPA's analysis. Accordingly, it appears that EPA modeled Minnesota sulfate emissions that were higher than is appropriate.

EPA's Response to Comments (RTC) indicates that EPA's latest analysis concluded that Minnesota's out-of-state contribution of PM_{2.5} is 0.2 µg/m³, *i.e.*, precisely the same as the significant contribution threshold. MP believes that, if EPA had used appropriate emission rates for Minnesota in the IPM Model (*see* NEEDS 2004 and NEI 2001), the Minnesota contribution to EPA's modeled downwind nonattainment areas would be reduced below the 0.2 µg/m³ PM_{2.5} threshold. This conclusion is based on application of the methodology EPA used in its Memorandum to Docket entitled "Emissions in Minnesota: Additional Analysis," dated March 9, 2004 (hereinafter "EPA Memorandum").¹

In addition to generally overstating Minnesota SO₂ emissions, other concerns relate to steps EPA took just before finalizing CAIR in an attempt to take into account emission reductions that it previously had not considered. EPA carried out a computer model sensitivity

¹ This memorandum, which was posted to the EPA docket in conjunction with issuance of the final CAIR, appears to be misdated. The memorandum includes references to events that occurred after March 9, 2004, including issuance of EPA's Notice of Data Availability, suggesting that the memorandum was prepared in March 2005 near the time of the final CAIR release.

analysis with its IPM v2.1.9 base case estimate for 2010 in an attempt to reflect Minnesota emission reductions achieved under the Metropolitan Emission Reduction Program and the Clean Air Minnesota program. However, EPA subsequently learned that emission levels in the IPM sensitivity analysis were overstated by an additional 16,500 tons of annual NO_x emissions and 5,800 tons of annual SO₂ emissions. Attempting to correct this overstatement, EPA applied a proration technique to see if those reductions would change the result of the IPM sensitivity run. *See* EPA Memorandum. MP believes that, if these emission reductions had been considered as a part of the sensitivity run, these reductions by themselves may have resulted in Minnesota being excluded from CAIR.

In sum, MP has identified apparent flaws in EPA's modeling and data relied on in making the determination that Minnesota should be subject to CAIR. Because EPA's modeling with such weaknesses shows that Minnesota's contribution to out-of-state PM_{2.5} nonattainment does not exceed the 0.2 µg/m³, but is merely equal to this threshold, EPA should convene a proceeding to reconsider its significance determination so that the Agency can apply its computer model using corrected emissions rates and other inventory data that is available from records of emissions such as continuous emission monitoring systems required under the Acid Rain Program. The discrepancy in the SO₂ emissions information, the incomplete modeling of emission reductions, and the inability for MP and others to submit comments on EPA's analysis on which CAIR applicability to Minnesota is based clearly justify EPA's granting reconsideration. Based upon MP's analysis, the company believes that, upon carrying out the requested analysis and review, EPA will determine that Minnesota should not be subject to CAIR.

2. EPA's SO₂ Allowance Allocation Methodology Is Highly Inequitable To States Such As Minnesota With Low-Emitting Utilities And EPA's Adoption Of The Methodology Was Arbitrary And Capricious.

CAIR SO₂ emission reductions are premised upon a significant diminution of electric utility allowance allocations established under the Title IV Acid Rain Program. This allocation approach gives an unreasonable economic advantage to units with higher emission rates and significantly disadvantages units such as those of MP that were emitting at significantly lower levels in the baseline period under the Acid Rain Program. The inequity and unreasonableness of this allocation approach in Minnesota is demonstrated by these facts: (1) Minnesota is attaining all National Ambient Air Quality Standards; (2) MP coal unit SO₂ emission rates are already about half the national average; (3) MP electric generating units already burn low sulfur and low mercury coal with over 70% of coal unit capacity already controlled by scrubbers; and (4) MP coal units operate well within the operating permit limitations established to be protective of human health and welfare, with SO₂ and particulate emission rates about 70% lower than allowable levels.

Reducing SO₂ emissions at Minnesota's already low-emitting generating units would not meet the "highly cost effective" control criteria for SO₂ established by EPA's IPM modeling. Yet these units are allocated very low levels of SO₂ allowances under EPA's allowance surrender provisions to accomplish CAIR's overall emission reduction goals. This inequity is apparent in Attachment B, "Diminishing Returns From SO₂ Emission Control Measures," which was presented on August 24, 2004 to Assistant Administrator Holmstead, et al.

EPA's own modeling shows that it would be most economic for Minnesota coal generating units to purchase SO₂ allowance credits from higher emitting facilities in other states rather than accomplish further SO₂ emission reductions. This is true because units with higher emission rates can achieve emission reductions much more economically than units with low

emission rates, such as those of MP. This approach penalizes facilities that took steps previously to achieve substantial emission reductions and has the effect of requiring Minnesota utilities to assist higher emitting facilities financially when they make investments to achieve emission levels that typically will still be higher on a per unit of output basis than for Minnesota's utilities. See Attachment C – "Wide Disparities Between Company Average Emission Rates."

MP requests that EPA reconsider the CAIR emission reduction methodology for SO₂ and establish a more equitable approach, such as that established under the NO_x and mercury emission reduction requirements. For both the NO_x and mercury allowance allocation programs, EPA takes into account emission rates appropriate for the fuel type and the relative amount of production for an emission unit as compared to total utility production.

3. EPA Did Not Give Notice In The Proposed Rule Of Its Intent To Adopt A PM_{2.5} Significant Contribution Threshold Of 0.2 µg/m³ And The Establishment Of Such Threshold Is Arbitrary And Capricious.

Under CAIR, any state whose emissions contribute to PM_{2.5} nonattainment in a downwind area in an amount equal to or greater than 0.2 µg/m³ is deemed to contribute significantly to such nonattainment. EPA indicated that it selected the 0.2 threshold by rounding up from 1% of the ambient standard of 15 µg/m³. It provided no rationale for why the threshold should be set at approximately 1% of the standard. It simply noted that there are "significant public health impacts associated with ambient PM_{2.5}, even at relatively low levels." But EPA does not indicate why the threshold should not properly be set at a significantly higher percentage of the standard. It indicates that "at least some nonattainment areas will find it difficult to or impossible to attain the standards without reductions in upwind emissions." However, EPA does not explain why the extraordinarily small percentage of the ambient standard is appropriately considered a "significant" contribution to downwind nonattainment.

EPA's failure to set forth a meaningful rationale for adopting the 0.2 threshold leaves commenters in the position of not being able to provide meaningful comment. The practical effect of establishing such an extraordinarily low threshold means that states with very low emissions upwind of a PM_{2.5} nonattainment area can be deemed to be a significant contributor to such nonattainment. The result is to give no effect whatsoever to the statutory requirement that the contribution be "significant." The unreasonableness of this action is greatly compounded for Minnesota by virtue of the fact that allowance allocations were already quite low under the Acid Rain Program due to the very low emissions levels of electricity generating units in the State on which the acid rain baseline was calculated. The combined effect is that Minnesota utilities, which already contribute very tiny amounts to downwind air quality levels, will be placed in the position of being required to accomplish "highly cost-*ineffective*" emission reductions or purchase allowances from higher emitting facilities in other states.

Establishing a higher significance threshold is further justified by the variability that exists in PM_{2.5} monitoring readings and the observed bias in the correlation analyses carried out by EPA in assessing the CMAQ model when compared to ground level monitor measurements. In light of such variability and observed bias, MP urges EPA to establish a significance level between 3% and 7% of the PM_{2.5} standard. *See* MP Comments dated March 30, 2004, July 26, 2004 and August 27, 2004.

EPA should reconsider the threshold level for determination of significant contribution for PM_{2.5} and provide a supportable rationale for determining a "significant" contribution. In doing so, EPA should find that a level substantially higher than 0.2 µg/m³ of PM_{2.5} is appropriate to be deemed "significant."

II. EPA SHOULD STAY THE EFFECTIVENESS OF CAIR OR, AT A MINIMUM, ITS APPLICABILITY IN MINNESOTA PENDING RECONSIDERATION AND GRANT AN APPROPRIATE EXTENSION OF THE FINAL RULE'S COMPLIANCE DEADLINES.

The foregoing shows that EPA should grant MP's Petition for Reconsideration and convene a reconsideration proceeding. It is also imperative that, in connection with the reconsideration proceeding, EPA grant administrative relief to ensure that Minnesota will not be required to take necessary steps to comply with CAIR, since EPA's reconsideration pursuant to this petition should result in Minnesota not being subject to CAIR. Pursuant to the administrative stay authorization in section 307(d)(7)(B) and EPA's general rulemaking authority under section 301(a), MP requests that EPA immediately stay the effectiveness of the final rule or, at a minimum, its applicability in Minnesota for at least three months and that the compliance dates in the final rule be extended for an appropriate period while the Agency addresses the issues raised in the reconsideration petition.

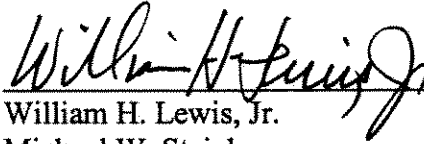
Under CAIR, Minnesota is required to promulgate an implementation rule by September 2006. To meet that deadline, the state would likely begin shortly to undertake the necessary rulemaking process. In addition, Minnesota utilities face the necessity of identifying options and developing plans for complying with CAIR. To obviate the need for such potentially unnecessary actions, EPA should immediately stay the implementation of CAIR in Minnesota and take action to extend CAIR's initial compliance date while it addresses this Petition for Reconsideration.

CONCLUSION

For the foregoing reasons, MP's Petition for Reconsideration should be granted. Furthermore, EPA should stay the effectiveness of CAIR or, at a minimum, its effectiveness in

Minnesota, and extend the initial CAIR compliance deadline during its reconsideration of the rule.

Respectfully submitted,



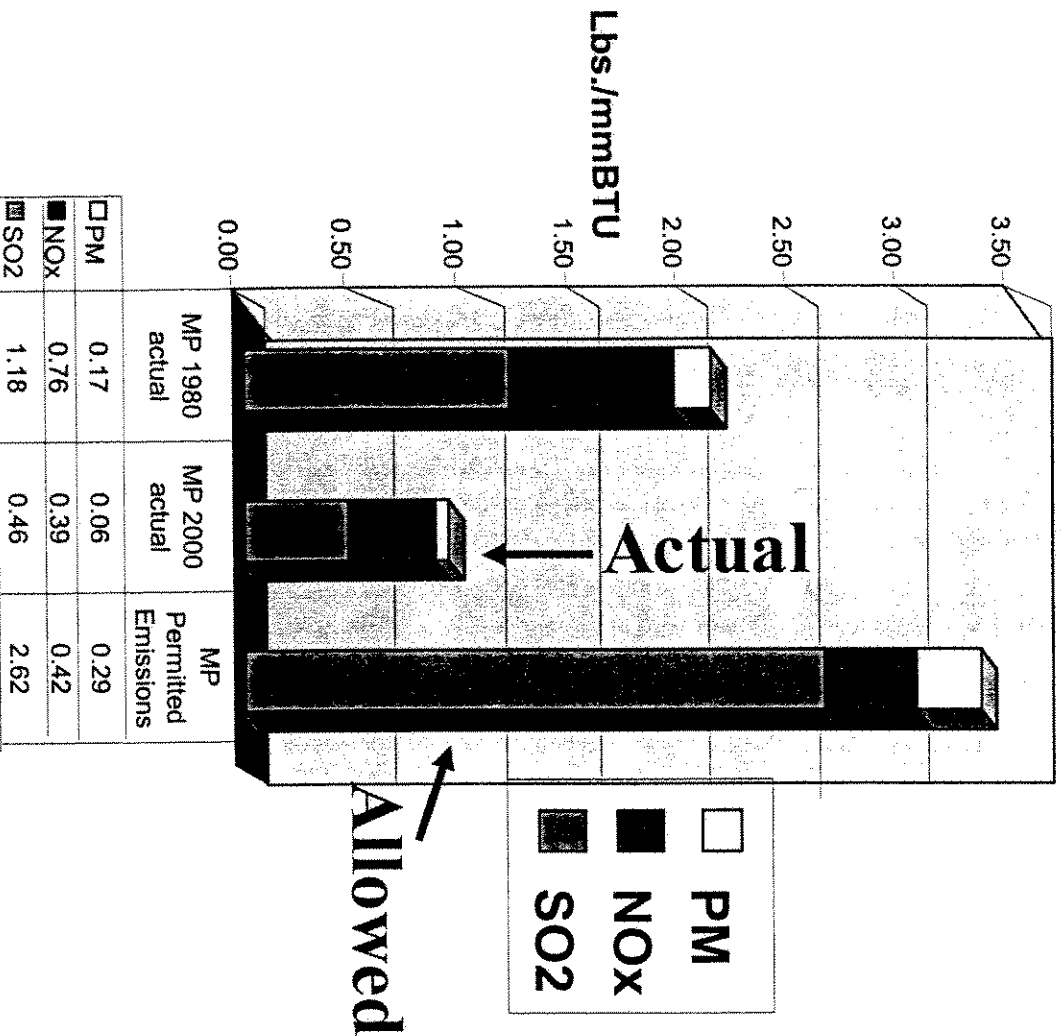
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Dated: August 5, 2005

ATTACHMENT A

Minnesota Power's Plant Emission Rates are Low

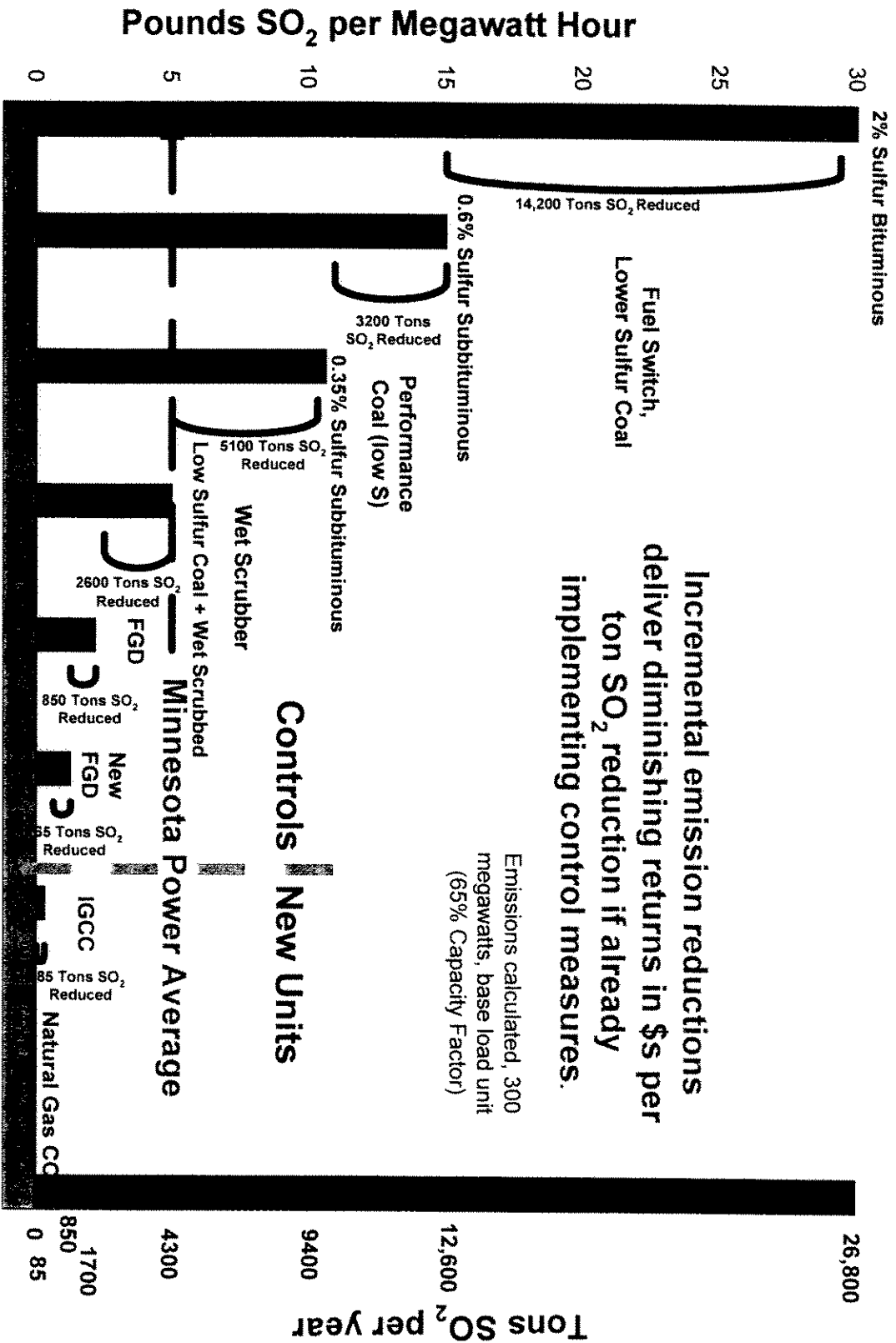


Minnesota Power's coal plants have about a 70% compliance margin for maintaining local air quality attainment

All Minnesota Power plants are operated with environmental controls that enable them to outperform emission limits established to support local air quality standard attainment.

ATTACHMENT B

Diminishing Returns from SO₂ Emission Control Measures



Wide Disparities Exist Between Company

Average Emission Rates

Coal Plants SO₂ Rate
(lbs/MWh)

Each color represents
25 companies

**Equitable allocation should assure low emitters
are not allowance short or technology forced**

Mix, higher sulfur coal
or no scrubbers

ALLETTTE (Minnesota Power)
(80+ % scrubbed, low sulfur coal)

