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*American Lung Association*  
*American Lung Association of Metropolitan Chicago*  
*American Lung Association of New York State*  
*Appalachian Mountain Club*  
*Conservation Law Foundation*  
*Environment Northeast*  
*Group Against Smog and Pollution*  
*Hoosier Environmental Council*  
*National Environmental Trust*  
*National Parks Conservation Association*  
*Natural Resources Council of Maine*  
*Natural Resources Defense Council*  
*Ohio Environmental Council*  
*Southern Alliance for Clean Energy*  
*Southern Environmental Law Center*  
*United States PIRG Education Fund*

July 26, 2004

**VIA E-DOCKET,**

with Hard Copy to Follow by US MAIL

U.S. Environmental Protection Agency  
Air Docket, Clean Air Interstate Rule  
Mail Code: 6102T  
1200 Pennsylvania Ave., N.W.  
Washington, DC 20460

Attention: Docket ID No. OAR-2003-0053

Re: Comments on Supplemental Proposal for the Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule), 69 Fed. Reg. 32684 (June 10, 2004).

Dear Administrator Leavitt:

The Clean Air Task Force (“CATF”), on behalf of the undersigned citizens’ groups and on its own behalf, appreciates the opportunity to comment on EPA’s “Supplemental Proposal for the Rule to Reduce Interstate Transport of Fine Particulate

Matter and Ozone (Clean Air Interstate Rule),” published in the Federal Register on June 10, 2004 at 69 Fed. Reg. 32684 (“CAI Rule” or “CAIR”). This supplemental proposal follows EPA’s original January 30, 2004 Interstate Air Quality Rule (“IAQR”) proposal in this matter to require power plants throughout the eastern United States to reduce emissions of sulfur dioxide (“SO<sub>2</sub>”) and nitrogen oxides (“NO<sub>x</sub>”).<sup>1</sup>

The undersigned environmental and public health organizations are actively engaged in national, regional and local efforts to reduce harmful air pollution from fossil fuel fired-power plants and other sources, and have thousands of members who live and work in states impacted by that pollution.

These same groups filed comments with EPA on the IAQR dated March 30, 2004 (“CATF Group IAQR Comments”).<sup>2</sup> In those comments, we argued, among other things, that the Clean Air Act (“CAA” or the “Act”) requires EPA to require tighter and earlier emission caps than proposed. EPA’s supplemental CAIR proposal has not corrected that fundamental deficiency, and therefore continues to be unlawful and arbitrary and capricious. We therefore reaffirm the CATF Group IAQR Comments and incorporate them herein by reference. We also supplement them in certain respects as described herein.

## **I. Overview**

EPA states that its supplemental CAIR proposal “fills in certain gaps in the January 2004 proposal and revises it or its supporting information in specific ways.”<sup>3</sup> In fact, the CAIR proposal does more than “fill in the gaps.” It contains several new, far reaching provisions that were not proposed in the original IAQR, two of which are very troublesome. First, EPA proposes to exempt all BART-eligible power plants (“electric generating units” or “EGUs”) that are subject to the cap and trade program established by

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<sup>1</sup> “Proposed Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone, published in the Federal Register on January 30, 2004 at 69 Fed. Reg. 4566.

<sup>2</sup> Comments of CATF, *et als.* on Proposed Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Interstate Air Quality Rule), 69 Fed. Reg. 4566 (January 30, 2004), having Document Identifier Number “OAR-2003-0053-0968,” with Appendices having Document Identifier Number “OAR-2003-0053-0969.”

<sup>3</sup> 69 Fed. Reg. 32684 at 32685.

the CAI Rule from the “best available retrofit technology” (“BART”) controls explicitly required by Congress in Section 169A of the Act.<sup>4</sup> This provision would have the effect of allowing BART-eligible power plants subject to the CAIR cap and trade program to avoid the application of much more stringent BART standards (presumptively up to 95% for SO<sub>2</sub>)<sup>5</sup> required by the Regional Haze Rule<sup>6</sup> (“RHR”) and the repropoed 2004 BART Guidelines.<sup>7</sup>

Secondly, EPA seeks comment on (but does not actually propose) a “poison pill” provision that could effectively preclude future rulemakings similar to this one by inserting a new (and extremely difficult to meet) requirement into the “significant contribution” test.<sup>8</sup> Essentially, under this provision a source category would be subject to a regional transport rule under Section 110 of the Act only if the proposed control of that source category would bring 16 or more counties in attainment with a NAAQS.

Both of these new provisions violate the Act, are arbitrary and capricious, will seriously hamper opportunities for additional emissions reductions in the future, and must be deleted from the final CAI Rule.

EPA’s new and “clarified” provisions do not, however, include any attempt to correct the serious shortcomings of the initial IAQR—most notably, the inadequacy of the levels and timing of the emission caps. EPA must require deeper reductions than proposed, and must require them sooner than proposed. They are technically and economically feasible, and are required under the Act and governing regulatory precedent and policy. Accordingly, we reiterate that EPA must:

- reduce the annual control region SO<sub>2</sub> cap to about 1.84 million tons (approximately equivalent to a 2 million ton nationwide cap);
- make the SO<sub>2</sub> reductions effective in one phase, by the beginning of 2010;

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<sup>4</sup> 69 Fed. Reg. 32684 at 32702-32707.

<sup>5</sup> 69 Fed. Reg. 25184 at 25199-201.

<sup>6</sup> EPA, “Regional Haze Regulations,” 64 Fed. Reg. 35714 (July 1, 1999).

<sup>7</sup> EPA’s Proposed Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations,” 69 Fed. Reg. 25184 (May 5, 2004) (hereafter “BART Guidelines”); the BART guidelines originally proposed by EPA in 2001 are “Proposed Guidelines for Best Available Retrofit Technology (BART) Determinations Under the Regional Haze Regulations,” 66 Fed. Reg. 38108 (July 20, 2001).

<sup>8</sup> 69 Fed. Reg. 32684 at 32720.

- reduce the annual control region NOx cap in two phases to about 1.04 million tons (approximately equivalent to a 1.25 million ton nationwide cap); and
- accelerate the second phase of the NOx reductions to 2012.

EPA has also used the CAIR to provide details on SIP criteria and submission requirements, interaction between CAIR and the Title IV Acid Rain provisions and the NOx SIP Call,<sup>9</sup> details on its model cap-and-trade program for EGUs, as well as actual proposed regulatory language. We believe that these provisions must be strengthened in various ways, including:

- Do not reduce the 3 to 1 SO<sub>2</sub> allowance retirement ratio
- Do not inflate the SO<sub>2</sub> cap by the 250,000 SO<sub>2</sub> allowances in the “Special Allowance Reserve”
- Retain the ozone-season NOx requirements of the NOx SIP Call
- Do not allow NOx early reduction credits (ERCs), or strictly limit them to non-ozone season and NOx SIP Call region use
- Place reasonable restrictions on the use of banked SO<sub>2</sub> allowances
- Include in the model cap-and-trade rule provision for allowance set-asides for purposes of clean and renewable energy and energy efficiency programs, and for provision of some allowance auctions.

## **II. EPA’s Proposed Exemption of CAIR EGUs from Statutory BART Requirements is Unlawful and Unsound.**

### **A. EPA’s Substitution of CAIR for BART Violates the Clean Air Act.**

EPA includes in its supplemental CAIR proposal a sweeping exemption of power plants subject to CAIR from the explicit BART requirements set forth in Section 169A of the Clean Air Act.<sup>10</sup> Specifically, EPA proposes “that BART-eligible EGUs in any State affected by CAIR may be exempted from BART for controls for SO<sub>2</sub> and NOx if that

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<sup>9</sup> “Finding of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone,” 63 Fed. Reg. 57356 (October 27, 1998) (“NOx SIP Call”).

<sup>10</sup> 42 U.S.C. §7491.

State complies with the CAIR requirements through adoption of the CAIR cap-and-trade programs for SO<sub>2</sub> and NO<sub>x</sub> emissions.”<sup>11</sup> EPA mentioned the potential for a CAIR-based exemption in the proposed BART Guidelines,<sup>12</sup> and many of the undersigned also submitted comments in the BART docket opposing such an exemption (the “CATF Group 2004 BART Comments”).<sup>13</sup> We hereby adopt by reference that portion of the CATF Group 2004 BART Comments addressing EPA’s “better than BART” proposal and incorporate it herein.<sup>14</sup>

EPA’s proposed exemption of BART-eligible power plants that are subject to a state cap-and-trade program under the CAI Rule is in plain violation of Section 169A of the Act. EPA’s approach here is similar to the approach employed in the original IAQR proposal to set the levels of the emission caps. That is, it appears that EPA designed its proposed BART exemption to match the repeal of BART in the Bush administration’s “Clear Skies” legislative proposal.<sup>15</sup> Implementing the current Clean Air Act based upon, and constrained by, a not-yet-enacted legislative proposal—rather than the requirements of the Act itself—is the essence of unlawful action. In effect, rather than implementing the Act, EPA is attempting to amend it.

It would simply be contrary to law and an abuse of discretion for EPA to conclude that the reductions required by the CAI Rule categorically satisfy BART requirements for all affected Class I areas. The CAI Rule is designed to mitigate downwind contribution to unhealthy particulate and ozone pollution levels and to help local areas achieve attainment of the PM<sub>2.5</sub> and 8-hour ozone NAAQS, while the Regional Haze Rule and the BART requirements are specifically designed to protect scenic vistas in specially protected national parks and wilderness areas. While states may consider the reductions under the CAI Rule in determining whether BART is satisfied for a particular major

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<sup>11</sup> 69 Fed Reg. 32684 at 32702.

<sup>12</sup> 69 Fed. Reg. 25184 at 25203-204.

<sup>13</sup> July 15, 2004 Comments of CATF, ED et als. on EPA’s Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations, 69 Fed. Reg. 25184 (May 5, 2004), having Document Identifier Number “OAR-2002-0076-0221,” with Appendices having Document Identifier Number “OAR-2002-0076-0222.”

<sup>14</sup> CATF Group 2004 BART Comments at 7-9, 11—19.

<sup>15</sup> S.485, “The Clear Skies Act of 2003.”

stationary source under the visibility program,<sup>16</sup> EPA may not categorically displace the manifest protections under the Clean Air Act’s visibility program with the CAI Rule.

Section 169A(b)(2) of the Clean Air Act requires states to adopt plans that “contain such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal.” The plans must, at a minimum, include the requirement to “procure, install, and operate, as expeditiously as practicable . . . the best available retrofit technology” for each major source that is in existence on August 7, 1977 but which has not been in operation for more than fifteen years as of that date and that emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in a Class I area.<sup>17</sup> The statute, in turn, delineates relevant factors that must be considered in determining reasonable progress and BART.<sup>18</sup> It also prescribes the 26 source categories—including power plants with more than 250 million BTU/hour heat input—that constitute “major stationary sources” for purposes of BART, provided they have the potential to emit 250 tons or more of any pollutant.<sup>19</sup>

Thus, Congress plainly required that, at a minimum, state implementation plans address BART for all 26 source categories contributing to regional haze and meeting the BART size and age requirements. These sources were singled out by Congress for the application of BART and EPA cannot now categorically exempt them from the visibility protection requirements. There is no basis in law or fact for such a far-reaching exemption to plain statutory commands.<sup>20</sup>

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<sup>16</sup> As explained herein, *infra*, at p. 8, a state could do this only in the context of determining the appropriate level of BART control by evaluation of the statutory BART factor relating to “existing pollution control technology in use at the source.” 42 U.S.C. §7491(g)(2). Given the permissive levels of the CAIR caps, SO<sub>2</sub> control at a particular power plant subject to CAIR would meet the BART SO<sub>2</sub> requirement only if that plant were “overcontrolled” for CAIR.

<sup>17</sup> 42 U.S.C. §7491(b)(2)(A).

<sup>18</sup> 42 U.S.C. §7491(g)(1)-(2).

<sup>19</sup> 42 U.S.C. §7491(g)(7).

<sup>20</sup> We also note that EPA sought comment in its original IAQR proposal on whether the IAQR reductions should be deemed to satisfy the first long term strategy requirement to achieve reasonable progress for regional haze. 69 Fed. Reg. 4566 at 4587. EPA has not proposed to do so, either in this supplemental CAIR proposal or in its repropoed BART Guidelines. In the event that EPA does make such a proposal, we hereby reserve the right to provide detailed written objections thereto, once we have reviewed the details of such proposal. At this point we can simply say that any such proposal would violate the Act and the RHR, and would also be arbitrary and capricious and an abuse of discretion. Furthermore, based on currently available information, it does not appear that CAIR alone would come close to providing the

The plain language of the statute and the recent D.C. Circuit Court of Appeals decision in *American Corn Growers*<sup>21</sup> also confer on *the states* the authority to adopt visibility implementation plans and enforce BART requirements. Indeed, the *American Corn Growers* decision was firmly rooted in a recognition that EPA may not usurp states' authority in carrying out the BART requirements. EPA's proposal to categorically exclude sources from BART – without any opportunity for the states to evaluate the adequacy of the reductions in light of the BART requirements, to consider their overall visibility protection needs, or to effectuate the core requirements and purposes of the visibility protection program – tramples roughshod over Section 169A, the relative roles and responsibilities of federal and state governments embodied in Section 110 of the Act, and the court's affirmance of state prerogatives in *American Corn Growers*.

Section 169A of the Act sets forth explicit conditions pursuant to which EPA may grant an exemption from the BART requirements. To the extent that EPA's "better than BART" provision purports to exempt BART-eligible sources from BART, it is arbitrary and capricious and in clear violation of the Act. Furthermore, to the extent that EPA's "better than BART" provision can be interpreted as not providing an exemption from BART, it must nevertheless meet the mandates of Section 169A as interpreted by the federal courts, including the D.C. Circuit decision in *American Corn Growers*.

EPA's application of the "better than BART" alternate to power plants subject to the CAI Rule is clearly an exemption from BART that does not meet the requirements of Section 169A(c)—and is thus unlawful. Under EPA's proposal, "BART-eligible EGUs in any State affected by CAIR may be *exempted* from BART if that State complies with the CAIR requirements through adoption of the CAIR cap-and-trade programs for SO<sub>2</sub> and NO<sub>x</sub> for affected EGUs."<sup>22</sup> Section 169A(c), which provides the sole basis for an exemption from BART, allows EPA to grant an exemption only where the Agency determines that the exempted source "does not or will not, by itself or in combination with other sources, emit any air pollutant which may reasonably be anticipated to cause

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emission reductions necessary for a variety of Class I areas to meet their likely 2018 reasonable progress goals. See *infra*, Table II-1 at page 15 of these Comments.

<sup>21</sup> *American Corn Growers Ass'n v. EPA*, 291 F.3d 1 (DC Cir. 2002) ("*American Corn Growers*").

<sup>22</sup> 69 Fed. Reg. 32684 at 32689, 32702-706 (emphasis supplied).

or contribute to a significant impairment of visibility in any mandatory Class I area.”<sup>23</sup> Compliance with the CAIR cap-and-trade program plainly does not meet the requirements for such an exemption, as it does not impact the threshold BART issue of contribution to visibility impairment.<sup>24</sup>

Moreover, compliance with CAIR by a source subject to BART is relevant under Section 169A only in the context of the determination of appropriate BART controls for that source. Under the Regional Haze Rule, reductions from other emissions control programs such as the Title IV Acid Rain Program and the NO<sub>x</sub> SIP Call must be achieved in addition to, not as a substitute for, BART controls.<sup>25</sup> CAIR, of course, is another such emissions control program. Therefore, CAIR reductions cannot be used as the basis for exempting sources from BART or for declining to apply BART to such sources; rather, such reductions are relevant only in determining the appropriate level of BART control by evaluation of the statutory BART factor relating to “existing pollution control technology in use at the source.”<sup>26</sup>

Furthermore, in attempting to justify its substitution of CAIR for BART, EPA compares emissions reductions and visibility reductions from all EGUs subject to CAIR—including *non-BART* EGUs—with emissions and visibility reductions resulting from application of source-by-source BART controls solely to BART-eligible EGUs. In effect, EPA is attempting to use emission reductions already required under CAIR for the purpose of addressing downwind nonattainment problems under Section 110(a)(2)(D)<sup>27</sup> to replace reductions explicitly required by Congress in Section 169A from BART-eligible power plants to address visibility impairment. Under circumstances such as this where *non-BART* sources are subject to independent emission reduction requirements, neither EPA nor the states have the authority to use such independently required

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<sup>23</sup> 42 U.S.C. §7491(c).

<sup>24</sup> Furthermore, there is no evidence that EPA has complied with Section 169A(c)(3), which requires EPA to obtain “concurrence by the appropriate Federal land manager or managers” to its proposed CAIR-based exemption.

<sup>25</sup> See, e.g., 40 CFR §51.308(e)(2)(iv). See also October 5, 2001 Comments of CATF, ED, et als. on EPA’s Proposed 2001 Guidelines for BART Determinations under the Regional Haze Regulations, in Docket A-2000-28, at pp.21-27 (2001 BART Comments).

<sup>26</sup> 42 U.S.C. §7491(g)(2).

<sup>27</sup> The emission reduction requirements of the CAI Rule are based on EPA’s proposed finding in the January 30 IAQR that “29 states and the District of Columbia contribute significantly to nonattainment of the national ambient air quality standards (NAAQS) for fine particles (PM<sub>2.5</sub>) and /or 8-hour ozone in downwind states.” 69 Fed. Reg. 4566.



reductions to justify alteration or elimination of the explicit emission reduction requirements applicable to sources that are (or will be) subject to BART under Section 169A. Nor can EPA or the States allow those independently required reductions to serve “double duty” so as to also satisfy BART requirements.

We stress that EPA’s CAIR proposal does not require non-BART sources independently to reduce emissions for the purpose of meeting visibility requirements, and the level of the CAIR emission control requirements is not based on any analysis of EGU reductions necessary to meet BART or Regional Haze Rule requirements. An approach that required emission reductions from non-BART sources for visibility purposes *in addition* to reductions required under other regulatory regimes could well be permissible under Section 169A, because it would produce superior visibility improvement from non-BART source emission reductions that would *not otherwise occur*.<sup>28</sup> In allowing emission reductions mandated by CAIR from non-BART eligible sources to be substituted for source-by-source BART reductions, however, EPA is attempting to alter Congress’ mandate that certain designated classes of power plants produce substantial emission reductions—in addition to those reductions that would be required pursuant to other provisions of the Clean Air Act. If EPA or the states are simply free to exempt BART-eligible sources from BART requirements based on reductions from any other emission control program that may be required by law, then the BART mandates in the Act are rendered largely superfluous.

EPA has no more authority to substitute emission reductions from non-BART sources required in other emissions control programs for BART requirements than it would have to alter the mandatory Congressional scheme implementing certain reductions intended to attain the ozone NAAQS. In that context, the DC Circuit has

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<sup>28</sup> Thus, EPA’s unlawful attempt in this proceeding to substitute independently required reductions from non-BART sources for reductions required from BART sources is easily distinguishable from EPA’s lawful approval of the visibility protection program voluntarily adopted by certain western states in the Western Regional Air Partnership (WRAP), as set forth in the 2002 “Annex to the Report of the Grand Canyon Visibility Transport Commission.” See 68 Fed. Reg. 33764 (June 5, 2003). Reductions from non-BART sources in the WRAP Annex were not otherwise mandated by law or regulation, but rather were explicitly required for the purpose of visibility improvement in the western US. Cf., *Central Arizona Water Conservation District, et.al v. EPA*, 990 F.2d 1531(9<sup>th</sup> Cir. 1993), where the court allowed EPA to establish better than BART controls at an individual BART-eligible source; this case did not involve an alternate multi-source emission reduction scheme involving both BART sources and non-BART sources whose emissions were otherwise required to be reduced for non-visibility reasons.

recently held that EPA has no authority to alter or ignore explicit programs mandated by Congress in the Act, such as rate of progress VOC reductions under Section 182(c)(2)(B) of the Act and contingency measures under Section 182(c)(9).<sup>29</sup> For EPA to implement a valid “better than BART” alternative, at a minimum the emission reductions from that alternative must be limited to reductions from BART sources and reductions from non-BART sources that are not obtained as a result of other emission control programs. To reiterate, emission reductions from non-BART sources considered for use in a “better than BART” trading alternative to source-by-source BART must be *in addition to* emission reductions otherwise required from those sources.

Because EPA’s CAIR-based exemption effectively substitutes emission reductions from non-BART sources for those from BART sources, BART sources will be controlled at less stringent levels than the application of source-by-source BART would require. This is because EPA established the reductions in the CAI Rule based on an arbitrary and illegal misapplication of the “highly cost effective” principle set forth in the NO<sub>x</sub> SIP Call.<sup>30</sup> BART reductions are not determined in this manner, but rather are based on an evaluation of the five factors set forth in Section 169A(g)(2) of the Act.<sup>31</sup> The difference is substantial. EPA estimates that the CAIR SO<sub>2</sub> reductions will approximate 70% when the CAIR caps are fully implemented—sometime after 2020. By 2015, EPA estimates an overall SO<sub>2</sub> reduction of only about 58%.<sup>32</sup> This is substantially lower than the 95% SO<sub>2</sub> reduction presumed by EPA for uncontrolled sources in the repropoed BART Guidelines.<sup>33</sup>

EPA’s “better than BART” provision also violates the explicit language of Section 169A(b)(2)(A), which requires BART for sources that emit any pollutant that may contribute to any visibility impairment in *any* Class I area. In proposing a BART exemption in the CAIR context, EPA did not find superior visibility improvement resulting from application of CAIR compared to source-by-source BART controls in *each and every* Class I area that may be impacted by BART-eligible sources in the CAIR

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<sup>29</sup> See, e.g., *Sierra Club v. EPA*, 294 F.3d 155 (DC Cir. 2002).

<sup>30</sup> See, e.g., CATF Group IAQR Comments, at pages 10-23.

<sup>31</sup> 42 U.S.C. §7491(g)(2).

<sup>32</sup> 69 Fed. Reg. 4566 at 4579.

<sup>33</sup> 69 Fed. Reg. 25184 at 199-201.

region. Rather, EPA evaluated the comparative visibility impact<sup>34</sup> of BART and CAIR in some—but not all—relevant Class I areas.<sup>35</sup> Then, EPA compounded the error by *averaging* those impacts over the selected areas that had been evaluated, and simply pronounced that because *overall average* visibility improvement (over those selected areas) was projected to be greater under CAIR than under BART, all power plants subject to CAIR could be exempted from BART requirements.<sup>36</sup> In so doing, EPA has essentially fundamentally changed the BART requirements as currently set forth in the Clean Air Act, and has superseded the role of the states in establishing the reasonable progress goals and implementing BART requirements. There is simply no basis in the Act—or the RHR, for that matter—to support a BART substitute that has not been demonstrated to produce greater visibility improvement in *all* potentially impacted Class I areas. This is so because Section 169A and the RHR are designed to reduce and eventually eliminate visibility impairment in *each and every* Class I area. Congress explicitly made any eligible source that impacts visibility in *any* Class I area subject to BART requirements.<sup>37</sup>

Furthermore, the RHR is structured—as it must be under the Act—to require states to prepare SIPs that establish reasonable progress goals, calculate baseline and natural visibility conditions and establish long-term regional strategies for each relevant individual Class I area.<sup>38</sup> EPA cannot declare these SIP requirements satisfied by fiat, by broadly averaging emissions or visibility over a number of different Class I areas, either in- or out-of-state. Rather, reasonable progress towards the visibility goal is to be measured on an area-by-area basis. This makes perfect sense, as visibility conditions and source contributions can vary substantially from area to area. For example, in measuring reasonable progress towards the natural visibility goal for each of its Class I areas, a state

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<sup>34</sup> We believe that the analysis offered to support the particular comparison of visibility improvement in particular Class I areas from source-by-source BART and CAIR as described in the supplemental CAI Rule is flawed in various technical respects. *See, e.g.*, 69 Fed. Reg. at 32704 *et seq.*; EPA’s “Supplemental Air Quality Modeling Technical Support Document (TSD) for the Clean Air Interstate Rule (CAIR), May, 2004.” We discuss these issues in these comments, *infra*, at pages 12-13.

<sup>35</sup> Those Class I areas that EPA did and did not evaluate as part of its “better than BART” analysis in the supplemental CAIR proposal are set forth in Appendix A, attached hereto and made a part hereof. For those areas that EPA did evaluate, *see* EPA’s “Supplemental Air Quality Modeling Technical Support Document (TSD) for the Clean Air Interstate Rule (CAIR), May, 2004.”

<sup>36</sup> 69 Fed. Reg. 32684 at 32704-706.

<sup>37</sup> 42 U.S.C. §7491(b)(2)(A).

<sup>38</sup> *See, e.g.*, 51 C.F.R. §51.308(d).

cannot exempt sources from emission reductions necessary to meet reasonable progress in that state by pointing to greater progress in Class I areas located in some other state—in other words, visibility improvement is not a commodity that can be “traded” among states or Class I areas—each state and park will have a different required rate of visibility progress and different emission reduction requirements to meet its specific visibility progress rate.

EPA’s proposal to allow an alternate “better than BART” emissions control program as a substitute for source-specific BART must also be compatible with Section 169A as recently interpreted by the DC Circuit Court of Appeals under *American Corn Growers*. At the outset, we stress that the court in *American Corn Growers* expressly declined to rule that EPA could not use a cumulative contribution approach to determining visibility impairment or improvement for purposes of implementing BART.<sup>39</sup> However, the court did hold that EPA must allow states to consider at least some level of individualized assessment of the visibility impact of a BART-eligible source.<sup>40</sup> This requirement cannot be squared with EPA’s blanket BART exemption for all EGUs covered by the CAIR cap-and-trade program. EPA has no more authority to mandate that states apply BART to sources without any consideration of individual impact than it does to exempt BART-eligible sources without any such consideration—one principle implies the other. EPA’s “better than BART” alternative provides absolutely no consideration of individual BART impacts. Rather, it completely preempts a state’s application of the five statutory factors relevant to a BART determination.

Finally, in addition to the fatal problems with EPA’s attempt to displace BART requirements with the proposed CAIR discussed above, EPA’s analysis of CAIR as a BART alternative is flawed in a number of technical respects. Most importantly, EPA modeling is inadequate to support a valid comparison between BART and CAIR reductions. As EPA put it, “[i] applying the two prongs of the [better than BART] test,

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<sup>39</sup> The court stated in part: “Although petitioners also contended that no concept of a group or are-wide BART determination could ever be consistent with the Act, we need not decide that broad issue today.” *American Corn Growers, supra*, 291 F.3d at 9. [internal citations omitted].

<sup>40</sup> The court observed that the “Haze Rule ties the states’ hands and forces them to require BART controls at some sources without any empirical evidence of the particular source’s contribution to visibility impairment in a Class I area. If the Haze Rule contained some kind of a mechanism by which a state could exempt a BART-eligible source on the basis of an individualized contribution determination, then perhaps the plain meaning of the Act would not be violated.” *Id.* at 8. [internal citations omitted].

we faced some shortcomings in currently available modeling.”<sup>41</sup> These “shortcomings” resulted in EPA CAIR SO<sub>2</sub> modeling that includes sources that CAIR does *not* control (e.g., EGUs outside of the CAIR region), and does not assume any source-by-source BART controls outside of CAIR region.<sup>42</sup> NO<sub>x</sub> controls were also assumed in a larger region than CAIR actually covers. On the BART side of the analysis, source-by-source BART controls were assumed to be applied on a nationwide basis. In short, EPA’s modeling does *not* compare the alternative scenarios that actually being considered by EPA—that is, application of source-by-source BART within the CAIR region vs. implementation of CAIR within that same region.

While EPA certainly may use modeling to support its rulemaking efforts under the Act, the models must at a minimum be designed to accurately reflect the different control scenarios being modeled. In the case of EPA’s better than BART modeling of the CAI Rule, they do not meet this fundamental requirement. Clearly, EPA is capable of producing such modeling, but apparently in the rush to get out its CAIR proposal, it did not do so. EPA’s approach to rulemaking here is unlawful and arbitrary and capricious. Apart from all of our other legal objections to EPA’s proposal, EPA must support its analysis technically with modeling that actually matches the scenarios being analyzed. Finally, as we have previously mentioned, EPA’s analysis of visibility impacts only covers a subset of eastern Class I areas—*i.e.*, those for which certain information was available.<sup>43</sup> EPA’s proposal, however, would exempt *all* CAIR EGUs, even those whose emissions impact visibility in Class I areas that have not been analyzed. This, too, is clearly unlawful.

#### **B. EPA’s Substitution of CAIR for BART is Poor Public Policy.**

EPA’s “better than BART” proposal to substitute CAIR for BART not only violates the explicit BART requirements of the Clean Air Act, it also is seriously flawed as a matter of policy. In order to reach the national goal of restoring visibility in our

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<sup>41</sup> 69 Fed. Reg. 32684 at 32705

<sup>42</sup> *Id.*

<sup>43</sup> See footnote 35 and accompanying text, *supra*.

national parks and other Class I areas, dramatic reductions of visibility-impairing pollutants will be necessary.

This includes rigorous implementation of BART, a more stringent CAI Rule, and reductions from sources other than power plants (*e.g.*, diesel engines). In particular, since SO<sub>2</sub> is the primary visibility-impairing pollutant in most of the country, states will need to reduce SO<sub>2</sub> to extremely low levels—essentially all major sources will need to be rigorously controlled. Power plants are *the* major source category for SO<sub>2</sub> emissions in the US, emitting about two-thirds of all US SO<sub>2</sub> emissions.<sup>44</sup> BART-eligible EGUs account for over half of the SO<sub>2</sub> emitted by all EGUs, as well as about 40% of *all* SO<sub>2</sub> emissions in the United States.<sup>45</sup> These emissions must be virtually eliminated to reach the national visibility goal. EPA’s proposed exemption of these sources from stringent BART controls will remove *the most significant* opportunity for SO<sub>2</sub> reductions and tie the states’ hands in their efforts to obtain the necessary emissions reductions.

EPA has not demonstrated that states can achieve the initial interim visibility goal in 2018 or the ultimate goal of natural visibility in 2064 *without also applying BART* controls to sources that are subject to BART. It is not surprising that EPA has not produced such a demonstration because it must await the process of state long-term visibility planning as set out in the RHR.<sup>46</sup> Based on current information and projections, however, it is not likely that CAIR alone will be sufficient to achieve even the straight-line “glide path” portion of the 2018 interim visibility goal,<sup>47</sup> as Table II-1 below demonstrates for a sampling of Class I areas.

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<sup>44</sup> *See, e.g.*, 69 Fed. Reg. 4566 at 4589-90.

<sup>45</sup> CATF estimates that the 577 BART-eligible units at power plants emitted about 5.28 million tons of SO<sub>2</sub> in 2002. This is slightly more than half of the 10.2 million tons of SO<sub>2</sub> emissions of all power plants in the country in 2002.

<sup>46</sup> Visibility SIPs implementing the RHR (and BART requirements) are generally not due until 2008. *See, e.g.*, 69 Fed. Reg. at 25187.

<sup>47</sup> Of course, the “glide path” is simply the minimum visibility improvement that must be achieved. The ACT and the RHR require that all reasonable measures be taken to achieve reasonable progress, which may well produce improvement beyond the glide path.

**Table II-1  
CAIR Reductions Alone are NOT Adequate to Meet RHR “Glide Path” Target  
in Eastern Class I Airsheds in 2018**

Airshed	Natural 80th% <sup>a</sup>	Current 80th% <sup>b</sup>	Improvement Needed per RHR <sup>c</sup>	Glide Path Target Progress (2002-2018)	CAIR Alone Progress in 2015	Progress Needed Beyond CAIR Alone for 2018 Glide Path	Per cent CAIR Alone Contribution to 2018 Glide Path
Acadia , ME	11.45	22.7	11.3	2.9	1.20	1.7	41%
Big Bend, TX	6.93	18.4	11.5	3.0	0.06	2.9	2%
Brigantine, NJ	11.28	27.6	16.3	4.2	1.67	2.5	40%
Cape Romain, NC	11.36	25.9	14.5	3.8	1.66	2.1	44%
Chassahowitzka, FL	11.47	25.7	14.2	3.7	1.98	1.7	54%
Dolly Sods, WV	11.32	27.6	16.3	4.2	2.61	1.6	62%
Great Smoky Mountains, TN	11.44	29.5	18.1	4.7	2.58	2.1	55%
Guadalupe, TX	7.03	17.6	10.6	2.7	0.13	2.6	5%
James River Face, VA	11.24	28.3	17.1	4.4	2.07	2.3	47%
Lye Brook Wilderness, VT	11.25	23.9	12.7	3.3	1.07	2.2	33%
Mammoth Cave	11.53	30.2	18.7	4.8	2.62	2.2	54%
Moosehorn, ME	11.36	21.4	10.0	2.6	1.14	1.5	44%
Okefenokee NWR, GA	11.45	26.4	15.0	3.9	1.64	2.2	43%
Shenadoah NP, VA	11.25	27.6	16.4	4.2	2.63	1.6	62%
Shining Rock, NC	11.45	29.7	18.3	4.7	2.41	2.3	51%
Sipsey, AL	11.39	28.7	17.3	4.5	2.49	2.0	56%
Upper Buffalo Wilderness	11.28	25.5	14.2	3.7	2.10	1.6	57%

**DATA:**

Natural Conditions: <http://www.epa.gov/ttnamti1/files/ambient/visible/natural.pdf>

CAIR modeled visibility: <http://www.epa.gov/air/interstateairquality/tsd0162.pdf>

- a. Natural 90% per EPA Guidance (~80% NAPAP)
- b. Current 80% (1998-2002) (SAQMTSD)
- c. Current 80% less Natural

The following pictures illustrate the same point—that is, that visibility must improve much more than the CAI Rule can produce by itself. Thus, rigorous implementation of BART and many other measures will be required *in addition to* the proposed CAI Rule.

Acadia National Park: *Current Hazyest Days*



WinHaze modeled image of 80th percentile visibility (22.7 dv). Data: *IEWS* (1998-2002).



Acadia National Park: *What it Would Look Like Under CAIR in 2015*



WinHaze modeled image of 80th percentile visibility with projected 1.2 dv improvement from CAIR (21.5 dv).

Acadia National Park: *Haziest Days When Clean Air Act Goal is*

*met*



WinHaze modeled natural visibility (11.45 dv)

CATF has, however, projected potential emission reductions that might be obtained with the application of *both* BART *and* the CAI Rule based on presently available information. This analysis indicates that substantial additional reductions will likely be obtained from subjecting power plants to BART requirements—above and beyond those projected from the CAI Rule. The following is a brief overview of the CATF analysis, which is described in greater detail in Appendix B attached hereto and made a part hereof. For the CAIR case, CATF used the IPM modeling conducted for EPA to support the January 30, 2004, IAQR proposal. CATF identified the 142 BART-eligible EGUs located in the CAIR region that EPA’s modeling projected would continue to emit SO<sub>2</sub> in 2015 and that would not install flue gas desulfurization (FGD) controls. CATF then assumed that to comply with BART, these 142 units would use FGD to reduce SO<sub>2</sub> by 95%. This approach is quite conservative in that it assumes that BART-eligible EGUs presently (or projected by EPA in 2015 to be) controlling emissions to

some degree, but less than presumptive BART control levels, would not be required to tighten their controls.

Based on this analysis, shown in Table II-2, CATF projects that the combined application of BART to BART-eligible sources plus implementation of the CAI Rule will produce about 6.1 million tons/year of SO<sub>2</sub> reductions from the power plant sector—an *additional* 1.5 million tons of SO<sub>2</sub> reductions in 2015 over and above those that would result from implementation of CAIR alone, or about *one-third* of the entire emission reductions projected from the CAI Rule. Moreover, the BART emissions reductions would more likely be from power plants near affected Class I areas—where such reductions would yield greater benefits.

<b>Table II-2</b> <b>SO<sub>2</sub> Emissions Under BART and CAIR in the CAIR Region</b>
2002 Emissions – 9.4 million tons <ul style="list-style-type: none"> <li>• BART-Eligible Units – 5.0 million tons</li> <li>• Non-BART Units – 4.4 million tons</li> </ul>
2015 Emissions Under CAIR Modeling – 4.8 million tons <ul style="list-style-type: none"> <li>• BART-Eligible Units – 2.0 million tons</li> <li>• Non-BART Units – 2.8 million tons</li> </ul> <p style="text-align: center;"><b>• CAIR Reductions from 2002 level – 4.6 million tons</b></p>
2015 Emissions Under Both CAIR and BART (CAIR/BART) – 3.3 million tons <ul style="list-style-type: none"> <li>• BART-Eligible Units – 0.5 million tons</li> <li>• Non-BART Units – 2.8 million tons</li> </ul> <p style="text-align: center;"><b>• CAIR plus BART Reductions from 2002 level– 6.1 million tons</b></p>
<b>Additional BART Reductions As Compared to CAIR Only – 1.5 million tons</b>

EPA’s “better than BART” proposal will force states to make up these foregone BART emission reductions from other sources. Significantly, those reductions are likely to be much more costly. EPA recognizes that available controls for BART-eligible power plants can reduce SO<sub>2</sub> emissions by about 95% in a very cost-effective manner—

EPA estimated in the 2004 BART Guidelines that these units can reduce SO<sub>2</sub> for between \$200 and \$1300 per ton.<sup>48</sup> EPA also acknowledged that these BART control costs are “well within the levels considered for application under many CAA regulatory programs.”<sup>49</sup>

### **III. Power Plant Emissions Endanger Public Health and Welfare and Must be Substantially Reduced.**

In our CATF Group IAQR Comments, we described the substantial and well-documented impact of power plant emissions of NO<sub>x</sub> and SO<sub>2</sub> on public health and the environment.<sup>50</sup> We will not repeat those comments here, but do wish to bring several recent developments to the Agency’s attention.

First, CATF, on behalf of the Clear the Air power plant campaign, recently commissioned Abt Associates to quantify the health impacts of fine particulate pollution from power plants using new information and scientific studies not considered in a previous similar study and report that were described in the CATF Group IAQR Comments.<sup>51</sup> This new Abt Associates study (the “2004 Abt Study”) and the new CATF/Clear the Air report that accompanied it, called “Dirty Air, Dirty Power: Mortality and Health Damage Due to Air Pollution from Power Plants” (“CATF/CTA 2004 Power Plant Report”)<sup>52</sup> are available online at [www.cleartheair.org/dirtypower](http://www.cleartheair.org/dirtypower), and are

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<sup>48</sup> 69 Fed. Reg. 25184 at 25199; in fact, the December 29, 2000 note to EPA Docket A-2000-28 from Tim Smith (referenced by EPA at 69 Fed. Reg. at 25200 (note 32)), at page 4, estimates scrubber costs ranging from \$145 per ton of SO<sub>2</sub> removed to \$965 per ton.

<sup>49</sup> 69 Fed. Reg. 25184 at 25199.

<sup>50</sup> See CATF Group IAQR Comments at 7-9.

<sup>51</sup> That previous study is: Abt Associates (2000), *The Particulate-Related Health Benefits of Reducing Power Plant Emissions*, Bethesda MD, available on the internet at [http://www.catf.us/publications/reports/Abt\\_PM\\_report](http://www.catf.us/publications/reports/Abt_PM_report)

The report is: CATF/Clear the Air, *Death, Disease, & Dirty Power: Mortality and Health Damage Due to Air Pollution from Power Plants*, October 2000.

<sup>52</sup> CATF/Clear the Air, *Dirty Air, Dirty Power: Mortality and Health Damage Due to Air Pollution from Power Plants*, June 2004, also available on the internet at [http://www.catf.us/publications/reports/Dirty\\_Air\\_Dirty\\_Power.php](http://www.catf.us/publications/reports/Dirty_Air_Dirty_Power.php).

incorporated in full herein by reference. The 2004 Abt Study estimated that, among other things:<sup>53</sup>

- about 24,000 premature deaths per year, including 2,800 from lung cancer, are associated with power plant particulate matter alone
- the average number of life-years lost by individuals dying prematurely from exposure to particulate matter is 14 years
- power plant pollution is responsible for over 38,000 non-fatal heart attacks per year.

The electric utility industry, however, refuses to fully recognize the damage it causes, and like other industries before it—most notably the tobacco industry—seeks to deny the problem rather than focus on solving it. One of industry’s recent efforts along these lines is found in the March 30, 2004 comments submitted by the Edison Electric Institute (EEI) in this docket.<sup>54</sup> EEI states, for example, that EPRI’s Aerosol Research Inhalation Epidemiological Study (ARIES) found “no statistically significant association between sulfate levels and health effects.” EEI goes on to say that “[the ARIES] study demonstrates that EPA’s assessment of the health benefits of the proposed rule are *unsubstantiated* and the purported benefits of the IAQR should be qualified based on a high degree of uncertainty.”<sup>55</sup> We strongly disagree that EPA’s assessment of the health benefits of CAIR are “unsubstantiated,” and believe the record speaks for itself. Furthermore, the ARIES study does *not* support industry’s claim that power plant sulfate does not impact health.

Therefore, secondly, we are submitting for the record in this docket a review of the ARIES study recently completed by Drs. George Thurston, Kazuhiko Ito and Morton Lippmann. This review, entitled “An Evaluation of the ARIES Study and Conclusions to-Date Regarding the Health Effects of Sulfate and Acid Aerosol PM Air Pollution

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<sup>53</sup> Abt Associates (June 2004), *Power Plant Emissions: Particulate Matter-Related Health Damages and the Benefits of Alternative Emission Reductions Scenarios*, Bethesda, MD.

<sup>54</sup> EEI Comments dated March 30, 2004 in this docket, having Document Identifier Number “OAR-2003-0053-0774.”

<sup>55</sup> EEI Comments, *supra*, at pp 25-26 (emphasis added).

Components,” is attached hereto as Appendix C and incorporated herein (hereinafter the “ARIES Review”).<sup>56</sup> Findings of the ARIES Review include:

- “the interpretations of the ARIES study results that have been presented by utility industry representatives at meetings and to the press are *not* supported by the ARIES study scientific results or their conclusions to-date. In particular, the utility/energy representatives’ claims are incorrect in purporting that the ARIES results to-date *in any way* exonerate utility fossil-fuel emissions of a role in the well documented PM 2.5-health effects associations [emphasis added].”<sup>57</sup>
- “The ARIES health studies (and especially the mortality studies) have several shared issues that seriously limit definitive interpretation of the results at this time, especially regarding the lack of power to detect statistical significant pollution effects...” and *“These confounding factors, taken together, greatly limit the interpretation of relative significances of the risk estimates across air pollution indices examined in this study, undercutting confidence in the main conclusions of the study to date regarding the relative importance of traffic-related pollutant components to mortality and morbidity.”*<sup>58</sup>
- “The ARIES results also need to be interpreted in the context of other research, and the utility interpretation of the ARIES results are in conflict with the weight of evidence from other studies investigating acidic aerosols, sulfates and PM 2.5. As documented in Appendix A, the weight of evidence indicating that power plant-associated pollutants, such as sulfates and acidic aerosols, are associated with adverse health effects contradicts the utility assertion that there is no association between sulfur compounds (sulfates) and health effects to date at the levels measured in Atlanta.”<sup>59</sup>

In sum, the ARIES Review and the Abt Associates power plant study each make clear that particulate matter from power plants is a major public health hazard in this country. The EPA must strengthen its CAIR proposal substantially in order to adequately address this problem, and to comply with the Clean Air Act.

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<sup>56</sup> Thurston, T. D., Ito, K, and Lippmann, M., *An Evaluation of the ARIES Study and Conclusions to Date Regarding the Health Effects of Sulfate and Acid Aerosol PM Air Pollution Components*, NYU School of Medicine, Nelson Institute of Environmental Medicine, Tuxedo, NY (July 2004), available on the internet at [http://www.med.nyu.edu/environmental/labs/george\\_lab/ARIESreview.pdf](http://www.med.nyu.edu/environmental/labs/george_lab/ARIESreview.pdf).

<sup>57</sup> ARIES Review at iii-iv.

<sup>58</sup> Id. at iv, v.

<sup>59</sup> Id. at v.

#### **IV. EPA's Proposed CAIR Reductions are Too Little, Too Late.**

In the CATF Group IAQR Comments, we argued that EPA's proposed SO<sub>2</sub> and NO<sub>x</sub> emission caps violate the Clean Air Act and controlling regulatory precedent since greater reductions are feasible and highly cost effective, and can be obtained earlier.<sup>60</sup> EPA must tighten both the stringency and the timing of the proposed caps. The Clean Air Act requires, and the record abundantly supports, earlier and more substantial SO<sub>2</sub> and NO<sub>x</sub> reductions from the electric power sector, as these are necessary, feasible and highly cost-effective.

We will not repeat those arguments here, but do wish to set out some additional information in support of our position.

##### **A. EPA Must Implement CAIR Emissions Reductions Earlier than Proposed.**

EPA has specifically asked for comment on the timing of the reductions, acknowledging that "some commenters expressed concern that the CAIR compliance dates (January 1, 2010 for Phase I, and January 1, 2015, for Phase 2) come too late for Eastern States to meet their deadlines for coming into attainment with the 8-hour ozone NAAQS."<sup>61</sup>

We were definitely one of those concerned commenters. In our CATF Group IAQR Comments, we said:

"More timely reductions are clearly feasible, and EPA must require them to avoid thousands of premature deaths and billions of dollars in unnecessary social costs, and to meet its obligations under the Clean Air Act to facilitate timely NAAQS attainment."<sup>62</sup>

With respect specifically to the nonattainment issue, we observed that:

"EPA's proposed delay in fully implementing the emission caps until 2015 is also completely inconsistent with the NAAQS attainment deadlines that flow directly from the Clean Air Act. Section 172(a)(2) of the Act requires that every area designated by EPA as nonattainment for the PM<sub>2.5</sub> NAAQS must achieve

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<sup>60</sup> CATF Group IAQR Comments at 5-6, 9-37.

<sup>61</sup> 69 Fed. Reg. 32684 at 32690.

<sup>62</sup> CATF Group IAQR Comments at 24.

attainment “*as expeditiously as practicable*, but no later than 5 years from the date such area was designated nonattainment” [emphasis supplied].”<sup>63</sup>

We reiterate that EPA’s proposed dates for implementation of the CAIR caps violate the Clean Air Act. EPA’s only response in the supplemental CAIR proposal is to point to the possibility of voluntary early SO<sub>2</sub> reductions and the potential availability of various attainment date extensions.<sup>64</sup> This response is woefully inadequate. We stress that due to the 3-year average structure of both the ozone and PM<sub>2.5</sub> NAAQS, emission controls must be in place 3 years in advance of the attainment date. Therefore, emission reductions resulting from controls implemented in 2010 will not fully impact NAAQS attainment until 2013, and controls installed in 2015 will not fully affect attainment efforts until 2018. This latter date is over *2 decades*—a full generation—since the NAAQS were promulgated by EPA in 1997, and is well beyond even the most lenient interpretation of the statutory command that attainment be reached “as expeditiously as practicable.”

Even using EPA’s approach of effectively pre-planning for the application of every possible extension provision in the Clean Air Act, CAIR reductions will not allow many areas to achieve attainment within those extensions.<sup>65</sup> Table IV-1 demonstrates this:

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<sup>63</sup> CATF Group IAQR Comments at 24. We also pointed out in our earlier comments that every year of delay in fully implementing even the weak emission caps proposed by EPA would result in huge amounts of foregone human health and environmental benefits. Although only a fraction of these benefits can be measured and monetized, EPA projected that the portion of net benefits that can be monetized amounts to about \$80 billion each year. 69 Fed. Reg. 4566 at 4646.

<sup>64</sup> 69 Fed. Reg. 32684 at 32690.

<sup>65</sup> EPA mentions the attainment deadlines at 69 Fed. Reg. 32684 at 32690.



**Table IV-1**

<b>NAAQS</b>	<b>Attainment Date (CAA §§172, 181)</b>	<b>With Potential 5-yr Extension</b>	<b>Assumed to Qualify for Two Additional 1-yr Extensions</b>	<b>Full Effects of CAIR 2010 Caps</b>	<b>Full Effects of CAIR 2015 Caps</b>	<b>Tardiness of Full CAIR Cap Effect vs. Attainment Date</b>
<b>8-hr Ozone—</b> Marginal  Moderate  Serious	June 2007	Not available	June 2009	Jan. 2013	Jan. 2018	<b>9 years</b>
	June 2010		June 2012	Jan. 2013	Jan. 2018	<b>6 years</b>
	June 2013		June 2015	Jan. 2013	Jan. 2018	<b>3 years</b>
<b>PM<sub>2.5</sub></b>	Jan. 2010	Jan. 2015	Jan. 2017	Jan. 2013	Jan. 2018	<b>1 year</b>

In no case will full implementation of EPA’s CAIR occur by the time attainment is required, and in some cases CAIR reductions will be 9 years late.<sup>66</sup>

Furthermore, EPA’s approach of “planning for failure” by assuming the availability of maximum attainment date extensions is completely backwards, makes a mockery of the Clean Air Act deadlines, and is patently arbitrary and capricious. EPA cannot base a requirement for broad scale emission reductions from upwind areas on the acknowledged need to help downwind areas meet the NAAQS attainment mandates of the Act, but then fashion the requirement in such a way that States will not be able to meet those very same attainment mandates. As we have indicated previously, States must achieve attainment “as expeditiously as practicable.” EPA has failed to demonstrate that earlier emission reductions are not practicable. Therefore, EPA can and must require the CAIR emission reductions earlier than 2015, so that states will have a reasonable chance of bringing their ozone and PM nonattainment areas into attainment in a timely manner as required by Congress.

Finally, EPA’s stated intent to interpret the Clean Air Act so as to squeeze out every possible year of delay in implementing the NAAQS is a clear abdication of its

<sup>66</sup> We note that the above analysis does not account for the vast number of banked SO<sub>2</sub> Title IV allowances, which will push full implementation of the CAIR SO<sub>2</sub> cap out beyond 2020 (and thus the full attainment effect would not be realized until sometime after 2023).

responsibility to protect the American people from unhealthy air pollution. EPA's CAIR proposal will leave millions of Americans living in areas with unhealthy levels of PM and ozone. Using EPA's own projections in CAIR,<sup>67</sup> combined with US Census population figures, the chart attached hereto as Appendix D shows more than 43 million people left in 8-hr ozone nonattainment, PM<sub>2.5</sub> nonattainment, or both in 2010; and over 32 million people left in such unhealthy areas in 2015.

**B. EPA's Proposed Caps on Power Plant SO<sub>2</sub> and NO<sub>x</sub> Emissions are Inadequate to Protect Public Health and to Allow NAAQS Attainment and Must be Strengthened.**

EPA's proposed CAIR region annual emission caps of 2.7 million tons for SO<sub>2</sub> and 1.3 million tons for NO<sub>x</sub> are woefully inadequate, arbitrary and capricious, and inconsistent with the Clean Air Act and controlling policy and precedent thereunder. As we stated in our CATF Group IAQR Comments:

“EPA must apply the approach to determining an appropriate control level that it actually used in the NO<sub>x</sub> SIP Call. Application of that approach leads to a determination that “highly cost-effective” controls are those that achieve the “greatest feasible emission reductions” but cost on average up to \$2000 per ton of SO<sub>2</sub> removed and up to \$2500 per ton of NO<sub>x</sub> removed. As our analysis ... will demonstrate, regional annual control caps for power plants of 1.84 million tons for SO<sub>2</sub> and 1.04 million tons for NO<sub>x</sub> are well within these limits for highly cost-effective controls.”<sup>68</sup>

EPA has neither applied the approach to determining “highly cost effective” controls actually used in the NO<sub>x</sub> SIP Call nor explained why it has deviated from that approach in the CAIR proposal.

We will not repeat the information and discussion in our CATF Group IAQR Comments supporting our argument that EPA's cap levels are unlawfully lax, but have corrected and enhanced that information in certain respects.

Initially, we note that following EPA's January 30 IAQR proposal in this docket, on May 5, 2004 EPA repropoed its BART Guidelines addressing, among other things,

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<sup>67</sup> See, e.g., 69 Fed. Reg. 4566 at 4636-4641.

<sup>68</sup> CATF Group IAQR Comments, p.5 (internal citations omitted).

presumptive control levels for power plant SO<sub>2</sub> and NO<sub>x</sub> emissions.<sup>69</sup> As we have previously mentioned, EPA determined in that rulemaking that using available and “highly effective control technologies (*i.e.*, FGD),” power plants can generally reduce uncontrolled SO<sub>2</sub> emissions by about 95% or to a rate of 0.10 to 0.15 lb/mmBTU, at a cost averaging between \$200 and \$1300 per ton of SO<sub>2</sub> removed.<sup>70</sup> In fact, in an earlier study cited by EPA in the BART rulemaking, EPA estimated FGD costs ranging from \$145 per ton of SO<sub>2</sub> removed to \$965 per ton.<sup>71</sup> Significantly, EPA acknowledged that the cost of these rigorous BART controls is “well within the levels considered for application under many CAA regulatory programs.”<sup>72</sup> In spite of the clear availability of highly cost-effective controls capable of reducing SO<sub>2</sub> emission by 95% or the 0.10 lb/mmBtu level, the CAIR caps are based on much less stringent control levels—0.60 lb/mmBtu for phase 1 and 0.42 lb/mmBtu for phase 2.

In addition, in comments submitted in the BART docket, the Institute of Clean Air Companies (“ICAC”), a national trade association of more than 80 companies that actually supply air pollution control technology for stationary sources, provided substantial additional information on emission control technologies. The ICAC Comments are attached hereto as Appendix E and made apart hereof. In its Comments, ICAC confirmed that current technologies are capable of reducing SO<sub>2</sub> emissions by over 95%, and stated that there already are 38 coal-fired power plants that are meeting a 0.15 lb/mmBtu SO<sub>2</sub> emission rate.<sup>73</sup>

Given the availability of highly-cost effective SO<sub>2</sub> controls capable of reducing power plant SO<sub>2</sub> emissions to levels much lower than reflected in the CAIR cap, EPA must lower those caps substantially.

*CATF Analysis of Alternate Control Strategies.*

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<sup>69</sup> 69 Fed. Reg. 25184 at 25198-202.

<sup>70</sup> 69 Fed. Reg. 25184, at 25199-200.

<sup>71</sup> December 29, 2000 note to EPA Docket A-2000-28 from Tim Smith at page 4 (referenced by EPA at 69 Fed. Reg. at 25200 (note 32)).

<sup>72</sup> 69 Fed. Reg. 25184 at 25199

<sup>73</sup> ICAC Comments, at 12-15, Appendix A thereto.

CATF has analyzed several supplemental control scenarios beyond the “Alternate Control Scenario” described in our CATF Group IAQR Comments.<sup>74</sup> This new analysis was conducted using the same methodology used for the Alternate Control Scenario as described in the CATF Group IAQR Comments, except as specifically otherwise noted herein.

First of all, ICF has conducted for CATF an IPM run that more closely matches the caps that we believe the Clean Air Act requires—that is, a CAIR region SO<sub>2</sub> cap of 1.84 million tons in 2010, and a two phase NO<sub>x</sub> cap, 1.6 million tons in 2010 and 1.04 million tons in 2012.<sup>75</sup> This analysis is referred to as the “Corrected Alternate Control Scenario,” or sometimes as “Alternate Control Scenario 1c.” A detailed description of this IPM run and the results are set forth in Appendices F-1 and F-2 attached hereto and made a part hereof. The results of this analysis are nearly identical to those of the Alternate Control Scenario, and confirm the level of costs and benefits reported for CATF’s Alternate Control Scenario in our CATF Group IAQR Comments. The estimated benefits, in fact, are identical, and the costs nearly so, as shown in Table IV-2. This Table also demonstrates that the benefits from CATF’s Corrected Alternate Scenario are vastly greater than those from EPA’s CAIR proposal at little more cost—net benefits of CATF’s corrected scenario are \$90 billion in 2010 and \$120 billion in 2015, or almost double those of EPA’s CAIR proposal.

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<sup>74</sup> See CATF Group IAQR Comments at 45-50.

<sup>75</sup> This run is labeled CATF-18.

**Table IV-2**

	<b>EPA's CAIR Proposal</b>	<b>CATF Corrected Alternate Control Scenario</b>	<b>CATF Alternate Control Scenario</b>
<b>2010 Remaining PM<sub>2.5</sub> Nonattainment Counties</b>	23	7	7
<b>2015 Remaining PM<sub>2.5</sub> Nonattainment Counties</b>	13	5	5
<b>2010 Lives Saved</b>	9,600	18,000	18,000
<b>2015 Lives Saved</b>	13,000	22,000	22,000
<b>2010 Avoided Death Benefit</b>	\$53 billion	\$99 billion	\$99 billion
<b>2015 Avoided Death Benefit</b>	\$77 billion	\$129 billion	\$129 billion
<b>2010 Cost</b>	\$3.4 billion	\$9.1 billion	\$8.2 billion
<b>2015 Cost</b>	\$4.1 billion	\$8.9 billion	\$8.9 billion
<b>2010 Net Benefit</b>	<b>\$50 billion</b>	<b>\$90 billion</b>	<b>\$91 billion</b>
<b>2015 Net Benefit</b>	<b>\$73 billion</b>	<b>\$120 billion</b>	<b>\$120 billion</b>

As set forth in the CATF Group IAQR Comments and in Section IV.A of these CAIR comments, EPA's proposal to delay the CAIR emission caps until 2015 is arbitrary and capricious and a clear violation of the Clean Air Act. Each year of delay will also cause thousands of lost lives and other human health and environmental damage, which, to the very limited extent that such damage can be quantified in monetary terms, will amount to many billions of dollars of damage annually.

However, separate and apart from the fatal timing flaws in EPA's CAIR proposal, the level of the emission caps is also arbitrary and capricious, as we have amply demonstrated in the CATF Group BART Comments. Thus, even if EPA could lawfully implement the SO<sub>2</sub> cap in two phases, and could delay the second phase until 2015, the level of the 2015 SO<sub>2</sub> cap can be substantially reduced and EPA's failure to do so is in and of itself unlawful. In this regard, CATF has analyzed two additional and similar alternate control scenarios. These scenarios have caps and effective dates identical to those in the proposed CAI Rule, with the exception that the 2015 SO<sub>2</sub> CAIR region cap is tightened—in CATF Alternate Control Scenario 2 to 1.84 million tons and in CATF Alternate Control Scenario 2A to 2.0 million tons.

### *Alternate Control Scenario 2 Analysis Results*

As previously mentioned, in conducting this analysis, we have used the same methodology employed in our CATF Group IAQR Comments.<sup>76</sup> The results of the CATF analysis of Alternate Control Scenario 2 are summarized below.<sup>77</sup> They demonstrate that independent of the issue regarding timing of the effective date of the CAIR emission caps, a more rigorous cap on EGU SO<sub>2</sub> emissions is feasible, highly cost-effective, and produces substantial incremental benefits well in excess of incremental costs. The Alternate Control Scenario 2 contains an SO<sub>2</sub> emission control level that is identical to that required under the Clean Air Act (*i.e.*, a 1.84 million ton regional SO<sub>2</sub> cap), but that level is made effective in two phases: the first phase in 2010 is identical to EPA's proposed 3.9 million ton CAIR region cap, but the second phase cap in 2015 is tightened to the 1.84 million ton level. The NO<sub>x</sub> requirements are identical to those proposed by EPA in the CAIR.

National EGU SO<sub>2</sub> emissions in CATF Alternate Control Scenario 2 are projected to be:

- reduced to 4.7 million tons in 2010—
  - a reduction of about 5 million tons of SO<sub>2</sub> from EPA's 2010 base case
  - a reduction of about 1.3 million tons of SO<sub>2</sub> from EPA's CAIR 2010 proposal; and
- reduced to 3.6 million tons in 2015—
  - a reduction of about 5.5 million tons of SO<sub>2</sub> from EPA's 2015 base case
  - a reduction of about 1.7 million tons of SO<sub>2</sub> from EPA's CAIR 2015 proposal.

It is worth noting that even though Alternate Control Scenario 2 has the same phase 1 2010 SO<sub>2</sub> cap as the proposed CAIR, the IPM model projects that this alternate scenario, with its tighter phase 2 cap in 2015, will produce greater SO<sub>2</sub> reductions—not only in 2015 but also in 2010.

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<sup>76</sup> Specifically, this methodology is described in the CATF Group IAQR Comments at pp. 33-34 and Appendices 3, 4 and 5 attached thereto.

<sup>77</sup> A more detailed summary of results and specifications for the Alternate Control Scenario 2 (IPM run CATF-21) are set forth in Appendices G-1 and G-2 attached hereto and made a part hereof.

As shown in Table IV-3, estimated PM-related avoided deaths resulting from CATF's Alternate Control Scenario 2 are about 50% greater than those resulting from EPA's CAIR proposal.

**Table IV-3**

	<b>2010 Avoided Deaths</b>	<b>2015 Avoided Deaths</b>
<b>EPA CAIR</b>	9,600	13,000
<b>CATF Alternate Control Scenario 2</b>	13,200	19,100

The monetized benefits of the estimated PM-related mortality in 2010 and 2015 associated with the two regulatory options shown above are summarized in Table IV-4. As would be expected from the comparative premature mortality benefits shown above, the benefits resulting from CATF's Alternate Control Scenario 2 are about 50% greater than those resulting from EPA's CAIR proposal.

**Table IV-4**

	<b>2010 Avoided Deaths Benefit [1999 dollars]</b>	<b>2015 Avoided Death Benefits [1999 dollars]</b>
<b>EPA CAIR</b>	\$53 billion	\$77 billion
<b>CATF Alternate Control Scenario</b>	\$73 billion	\$113 billion

CATF's Alternate Control Scenario 2 also improves substantially over EPA's IAQR proposal in terms of achieving attainment, as summarized in Table IV-5.<sup>78</sup>

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<sup>78</sup> Detailed information comparing projected 2010 and 2015 design values and nonattainment counties for EPA's base case, IAQR and CATF Alternate Control Scenario 2 is shown in Appendix H hereto.

**Table IV-5**

	<b>2010 Number of Remaining Counties in Nonattainment</b>	<b>Population in Nonattainment Counties Based on Year 2000 pop.(millions)</b>	<b>2015 Number of Remaining Counties in Nonattainment</b>	<b>Population in Nonattainment Counties Based on Year 2000 pop. (millions)</b>
<b>EPA Base Case</b>	61	31.1	41	24.2
<b>EPA CAIR</b>	23	17.4	13	13.9
<b>CATF Alternate Control Scenario 2</b>	16	14.6	6	11.0

Finally, the costs of Alternate Control Scenario 2 are summarized below:<sup>79</sup>

- Total incremental costs (compared to EPA’s base case) are \$5.4 billion in 2010 and \$6.8 billion in 2015. EPA’s IAQR comparable IPM outputs show a difference in cost from base to IAQR of \$3.4 billion in 2010 and \$4.1 billion in 2015;
- Comparing these costs to the benefits from Table IV-4 above produces a benefit to cost ratio of over 13 to 1 in 2010 and over 16 to 1 in 2015;
- The average cost per ton of SO<sub>2</sub> and NO<sub>x</sub> (averaged together) removed is \$820/ton in 2010 and \$930/ton in 2015;
- Calculating the cost effectiveness of SO<sub>2</sub> reductions on a worst case basis—by assuming that the costs of both SO<sub>2</sub> and NO<sub>x</sub> reductions are attributable to SO<sub>2</sub>—produces an average cost of \$1060/ton in 2010 and \$1220/ton in 2015.

In sum, the results of CATF Alternate Control Scenario 2 show that this tighter SO<sub>2</sub> control level in 2015 will save thousands of lives and produce billions of dollars in benefits to society. This scenario demonstrates that such tighter control levels are feasible, highly cost-effective and therefore must be required by EPA to comply with the Clean Air Act, even if one assumes *arguendo* that EPA’s delay implementing the caps until 2015 will be upheld by the courts.<sup>80</sup>

*CATF Analysis of EPA’s 2001 Straw Proposal.*

<sup>79</sup> Again, these cost comparisons were calculated in the same way as those for the original CATF Alternate Control Scenario. See CATF Group IAQR Comments, Appendix 5.

<sup>80</sup> As pointed out in our CATF Group IAQR Comments (at pp. 32-33), Executive Order 12866 requires EPA to adopt the proposal with the greatest net benefits.



CATF’s Alternate Scenario uses SO<sub>2</sub> and NO<sub>x</sub> caps that are the CAIR regional equivalent of EPA’s August 2001 Straw Proposal (one of several alternate *national* power plant emission reduction scenarios that EPA analyzed prior to the announcement of the Clear Skies Initiative in 2002) (“Straw Scenario”). CATF commissioned ICF to prepare an IPM run representing the implementation of the Straw Scenario, in order to analyze the costs and emissions for this scenario and several other national power plant emission legislative proposals.<sup>81</sup> Using those IPM outputs, Abt Associates prepared for CATF an analysis of the health benefits and changes in PM<sub>2.5</sub> nonattainment status resulting from the Straw Scenario. PM<sub>2.5</sub> nonattainment status was estimated using the Speciated Modeled Attainment Test (“SMAT”).<sup>82</sup>

CATF’s analyses of its Alternate Scenarios presented herein and in the CATF Group IAQR Comments use simplified methodology to estimate health and nonattainment benefits, as described in Appendices 3, 4 and 5 of the CATF Group IAQR Comments. The Abt analysis of the Straw proposal uses a more precise method, using REMSAD modeling to estimate health benefits, and combines that with the SMAT to project nonattainment benefits. Results of the Abt analysis of the Straw Scenario are available for 2010, but not 2015. The results are set forth in Table IV-6.

Table IV-6

	<b>EPA’s CAIR Proposal</b>	<b>Straw Proposal</b>
<b>2010 Remaining PM<sub>2.5</sub> Nonattainment Counties</b>	23	14
<b>2010 Lives Saved</b>	9,600	11,100
<b>2010 Avoided Death Benefit</b>	\$53 billion	\$70 billion
<b>2010 Cost</b>	\$3.4 billion	\$6.9 billion
<b>2010 Net Benefit</b>	<b>\$50 billion</b>	<b>\$63 billion</b>

<sup>81</sup> These analyses are described in the Abt 2004 Study, and the CATF/CTA 2004 Power Plant Report. See footnotes 52 and 53 herein, *supra*.

<sup>82</sup> For details of methodology and results, see Appendix G.

The Abt analysis confirms that substantially greater highly-cost effective benefits can be obtained from lower emissions caps than EPA has proposed in the CAIR.<sup>83</sup>

*CATF Sensitivity Control Scenarios.*

CATF conducted several additional IPM runs for sensitivity purposes.

The first of these runs demonstrates that the benefits of additional reductions would dramatically exceed costs all the way down to the 1.84 million ton SO<sub>2</sub> cap in CATF's Alternate Control Scenario 2. Thus, we analyzed a scenario identical to Alternate Control Scenario 2, but increased the SO<sub>2</sub> cap slightly to 2.0 million tons. This additional scenario is called Alternate Control Scenario 2A, and its costs and benefits may be summarized as follows<sup>84</sup>:

- Benefits of \$71 billion in 2010, and \$110 billion in 2015
- Incremental costs (vs. CAIR) of \$5.2 billion in 2010, and \$6.5 billion in 2015.

The incremental benefits of reducing the SO<sub>2</sub> cap from 2.0 to 1.84 million tons are about \$2 billion in 2010 and about \$3 billion in 2015. The incremental costs of that same reduction are about \$0.2 billion in 2010 and 0.3 billion in 2015. Thus, reducing the SO<sub>2</sub> cap in 2015 from 2 million tons to 1.84 million tons would produce incremental benefits at about 10 times incremental costs.

Secondly, CATF conducted several additional runs to investigate the impact of assumed natural gas prices on the generation mix, especially the level of coal production. We believe that the natural gas prices reflected in EPA's IPM analysis are unrealistically low.<sup>85</sup> Presently natural gas for delivery during 2005 is priced at \$6-7/mmBtu on the NY Mercantile Exchange.<sup>86</sup> There is no reason to believe that it will return to the \$3 level

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<sup>83</sup> CATF's analysis of all of its Alternate Control Scenarios are all limited to the CAIR region to more accurately reflect the geographic limits of the CAIR proposal. However, due to limitations of the IPM regional modeling platform, emission reductions in the early stage of the control period in the Alternate Control Scenario and the Corrected Alternate Control Scenario (1c) may be overstated. This is because the model cannot begin the reduced SO<sub>2</sub> caps in 2010, but begins in 2008. That is the primary reason that estimated SO<sub>2</sub> mission reductions in 2010 are greater under CATF Alternate Control Scenario than under the Straw Scenario.

<sup>84</sup> Details of Alternate Control Scenario 2A (IPM run CATF-19), are attached hereto as Appendices I-1 and I-2.

<sup>85</sup> EPA assumes delivered prices for natural gas of about \$3.00/mmBtu from 2005 to 2020.

<sup>86</sup> Barron's, at MW30 (July 26, 2004).

assumed by EPA any time soon. Therefore CATF ran several scenarios to determine the impact of moderately higher (but lower than current) natural gas prices on generation mix, and specifically, coal utilization.<sup>87</sup> These IPM runs were identical to the Corrected Alternate Control Scenario (1c) and to Alternate Control Scenario 2A, with the exception of the assumed gas prices.<sup>88</sup> As Table IV-7 shows, these slightly higher gas prices are projected to positively impact coal production.

**Table IV-7**  
**Projected National Coal Production**

National Coal Production (tons) in	Corrected Alternate Control Scenario (1c)	Corrected Alternate Control Scenario (1c) (Higher Gas Price)	Alternate Control Scenario 2A	Alternate Control Scenario 2A (Higher Gas Price)
2005	985	1009	987	1009
2010	977	1012	1000	1030
2015	981	1149	1005	1158
2020	991	1265	998	1273

Several additional conclusions may be drawn from Table IV-7. First, coal production will not be adversely impacted by either Alternate Control Scenario 1c or 2A. Second, the two alternate control scenarios have similar impacts on coal. Finally, it is clear that the level of assumed natural gas prices has a much greater impact on coal production than does the stringency of emissions control.

*Projected Retail Price Impacts*

Finally, CATF has analyzed the impact of the various control scenarios on retail electricity prices. As shown in Table IV-8, all of these control scenarios will have a very small impact on electric rates—5% or less.

<sup>87</sup> In these two CATF gas price sensitivity scenarios, delivered natural gas prices were assumed to be \$3.54/mmBtu in 2005, \$3.81 in 2010, \$4.17 in 2015 and \$3.96 in 2020, as projected by the Energy Information Administration (“EIA”) AEO-2003 forecast – which were the gas prices used by EPA in its IAQR gas price sensitivity IPM runs. It should be noted that gas prices projections are higher in EIA’s more recent AEO-2004 forecast.

<sup>88</sup> Details of these gas price sensitivity scenarios (IPM runs CATF-22b and CATF-23b) are attached hereto respectively as Appendices J1 and J2 and L1 and L2.

**Table IV-8**  
**Retail Rates for Alternative Scenarios**  
**(National average, in dollars per MWH)**

Control Scenario	Retail Rates			Percent Difference from EPA Base Case		
	2010	2015	2020	2010	2015	2020
EPA Base Case	59.5	62.2	63.9	-----		
CAIR Proposal (revised)	60.8	63.9	65.1	2	3	2
CATF Alternate Control Scenario	62.3	65.1	65.7	5	5	3
CATF Corrected Alternate Control Scenario	62.6	65.1	65.7	5	5	3
CATF Alternate Control Scenario 2	61.5	64.6	65.6	3	4	3
CATF Alternate Control Scenario 2A	61.4	64.5	65.6	3	4	3

The CATF alternate control scenarios demonstrate that more stringent power plant emission caps are feasible and highly cost-effective. Both law and sound public policy require EPA to substantially reduce the level of the emission caps proposed in the CAIR.

**V. EPA’s Described Revision of the “Significant Contribution” Test is Unlawful and Would Likely Preclude Future SIP Calls.**

EPA seeks comment on a new provision described near the end of the preamble of its supplemental CAIR proposal as a “clarification” to its original IAQR proposal. This provision would effectively preclude or drastically limit the future use by EPA of its authority under Section 110(a)(2)(D) of the Act to require upwind sources to reduce downwind emissions that are significantly contributing to downwind nonattainment problems.<sup>89</sup>

<sup>89</sup> 69 Fed. Reg. 32684 at 32720.

EPA's description of this provision is quite broad and vague, *i.e.*, "a source category should be included only if the proposed level of additional control of that category would meet a specified threshold."<sup>90</sup> EPA says nothing about what that "specified threshold" would be or how a "source category" would be defined. However, EPA does describe the application of this provision as follows:

"Under this suggested approach, EPA could determine, *for example*, that inclusion of a source category in a broad multi-state SIP call would be appropriate only if it would result in at least 0.5 percent of U.S. counties and/or parishes in the lower 48 States coming into attainment with a NAAQS. Given the number of counties and parishes in the United States, this requirement would be met if at least 16 counties in the lower 48 States were brought into attainment with a NAAQS as a result of the proposed level of control on a particular source category."<sup>91</sup>

This provision is certainly not a "clarification" of any proposal contained in the January 30, 2004 IAQR proposal. Rather, it is completely new requirement that would either be grafted onto or replace EPA's present approach to the determination of "significant contribution" under Section 110 of the Act. No rationale is advanced for such a drastic change in statutory interpretation.<sup>92</sup>

First of all, the provision described by EPA is far too vague and undefined to allow for meaningful comment. We explicitly reserve the right to comment on such a provision if and when EPA properly defines and describes it.

Second, if this vague provision were actually limited to the application in the example described above, it is fundamentally inconsistent with the Clean Air Act and is arbitrary and capricious. (Because this example application would largely preclude EPA from issuing further SIP calls after CAIR (as we will describe), we refer to it hereafter as the "poison pill" provision.). Section 110(a)(2)(D) of the Act prohibits "*any emissions activity... within the State from emitting any air pollutant in amount which will...contribute significantly to, or interfere with maintenance by, any other State with respect to any [NAAQS].*"<sup>93</sup> The poison pill violates this statutory mandate in several respects.

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<sup>90</sup> Id.

<sup>91</sup> Id (emphasis added).

<sup>92</sup> See, e.g., *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29 (1983)

<sup>93</sup> 42 U.S.C. §7410(a)(2)(D)(i).

First, the poison pill would not focus on contribution to *any* nonattainment area, but rather on *all* nonattainment areas, and it is therefore facially invalid. As long as a source, group of sources or other emissions activity significantly contributes to nonattainment in *any* other state, even if it is the very last nonattainment area in the entire country, that contribution *must* be eliminated under Section 110(a). Second, the poison pill would apparently require full elimination of nonattainment, rather than elimination of a significant *contribution* to nonattainment. This also renders it facially unlawful. As EPA has on many occasions made clear, the purpose and function of a Section 110 SIP call is not to produce attainment single-handedly, but rather to provide States with the regional emission reductions necessary to allow impacted downwind areas to achieve nonattainment through additional local emission reductions. Furthermore, the provision would unlawfully narrow the “significant contribution” analysis to a source category by category test. Under Section 110(a)(2)(D) of the Act, EPA must consider *all* upwind emissions from a state or region, not simply those from a single source or source category. The poison pill would also unlawfully infringe on the discretion states possess under Section 110 to determine which sources to control in order to eliminate the significant downwind contribution.

As we have mentioned, implementation of the poison pill provision would severely restrict EPA’s ability to issue any future SIP calls.<sup>94</sup> Assuming that the proposed CAIR 2015 caps actually become effective, EPA projects that there will be 13 counties in the CAIR region remaining in nonattainment of the PM<sub>2.5</sub> NAAQS and 26 such counties in nonattainment of the 8-hour NAAQS.<sup>95</sup> Because the poison pill would require emission reductions from a single source category to produce attainment in at least 16 nonattainment counties, EPA would be powerless<sup>96</sup> under Section 110 to address any remaining pollution transport contributing to nonattainment of the PM or ozone

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<sup>94</sup> EPA notes that its CAIR proposal could proceed under this poison pill, as it projects that 34 counties will be brought into attainment of the PM<sub>2.5</sub> NAAQS. 69 Fed. Reg. 32684 at 32720. The fate of the ozone-based portion of the CAIR would be in doubt, however, as CAIR would bring only 8 counties into ozone attainment. 69 Fed. Reg. 4566 at 4641.

<sup>95</sup> See 69 Fed. Reg. 4566 at 4636-4642.

<sup>96</sup> For PM<sub>2.5</sub>, it would be mathematically impossible to meet the 16 county test, since only 13 counties would remain in PM nonattainment; and for ozone it would be practically impossible, since it is extremely unlikely that emission reductions from a single source category could produce attainment in 16 of the 26 remaining nonattainment counties.

NAAQS. Thus, implementation of the poison pill would constitute an effective prospective repeal of Section 110(a)(2)(D)(i) of the Act. This is patently unlawful. EPA must completely eliminate this poison pill suggestion from this and any other rulemaking.

## **VI. Other Issues**

### **A. SO<sub>2</sub> Retirement Ratio.**

EPA should retain the 3 to 1 SO<sub>2</sub> allowance retirement ratio for 2015 and beyond as originally proposed. In fact, it should increase the ratio, both to effectuate a lower cap and to reduce the huge existing supply of banked SO<sub>2</sub> allowances.

We also note that EPA acknowledges for what we believe is the first time the inclusion of 250,000 SO<sub>2</sub> allowances in the “Special Allowance Reserve” in the annual CAIR state SO<sub>2</sub> budgets.<sup>97</sup> EPA must clearly explain the existence and purpose of these allowances and the rationale for their inclusion in the state caps. It appears that these allowances simply inflate the cap and should be eliminated. If they must be retained due to Title IV requirements, EPA needs to demonstrate this, retain or increase the 3 to 1 retirement ratio (EPA estimates the difference between a 2.86:1 and a 3:1 ratio at about 150,000 allowances, less than the increase resulting from the allowance reserve), and provide in the model cap and trade rule that any allowances in the state budgets attributable to the “Special Allowance Reserve” are to be allocated for clean, renewable energy projects and energy efficiency programs.

### **B. NO<sub>x</sub> SIP Call.**

#### **1. Ozone Season NO<sub>x</sub> Reductions Must be Retained.**

In our CATF Group IAQR Comments, we stressed that EPA must ensure that implementation of the annual emission caps under CAIR do not compromise the ozone-season NO<sub>x</sub> reductions required by the NO<sub>x</sub> SIP Call.<sup>98</sup> EPA, however, proposes in the supplemental CAIR proposal to allow the annual CAIR NO<sub>x</sub> emission reductions to completely replace the ozone-season NO<sub>x</sub> reductions in the NO<sub>x</sub> SIP Call. Specifically,

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<sup>97</sup> See 69 Fed. Reg. 32684 at 32687, footnote 3.

<sup>98</sup> CATF Group IAQR Comments at 40.

EPA proposes that “if States achieve all of the mandated NO<sub>x</sub> reductions by including their EGUs in the regionwide, annual NO<sub>x</sub> cap-and-trade program managed by EPA, EPA will consider the reductions from that program to also meet the ozone season reduction requirements that States were previously achieving from EGUs participating in a region-wide ozone season NO<sub>x</sub> cap-and-trade program.”<sup>99</sup> EPA’s proposal amounts to an effective repeal of the NO<sub>x</sub> SIP Call, and is arbitrary and capricious and unlawful.<sup>100</sup>

The primary rationale that EPA offers to support its proposed repeal of the NO<sub>x</sub> SIP Calls ozone season emission reduction requirements is that it has conducted “modeling of expected NO<sub>x</sub> emissions from EGUs assuming that all States affected by the proposed CAIR achieve all of their required NO<sub>x</sub> reductions under the CAIR by including their EGUs in a regionwide annual NO<sub>x</sub> cap-and-trade program.”<sup>101</sup> EPA provides no description of the modeling or the modeling protocol, provides no results other than a broad conclusion,<sup>102</sup> and does not explain why the modeling may be considered an adequate basis for repeal of the ozone-season requirements. Without a detailed description of the modeling and a thorough explanation of the rationale, EPA has no basis for proposing such a sweeping regulatory repeal.

In any event, even were EPA modeling to show that *if all* EGUs in *all* states in the CAIR region are subject to CAIR, then their ozone-season emissions are projected to meet the requirements of the NO<sub>x</sub> SIP Call, that is not a lawful or adequate reason to repeal those requirements. EPA has established lawful, binding emission caps in the NO<sub>x</sub> SIP Call explicitly designed to reduce NO<sub>x</sub> during the summer ozone season when the weather is conducive to ozone formation.<sup>103</sup> Those summer caps must be enforced to ensure that the emission reductions required by the rule actually occur during the ozone

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<sup>99</sup> 69 Fed. Reg. 32684 at 32701-02.

<sup>100</sup> EPA states that “except as explained below, States should retain all of the SIP provisions that they adopted to meet the requirements of the NO<sub>x</sub> SIP Call.” 69 Fed. Reg. 32684 at 32701. This statement has no substantive effect, however, in the face of EPA’s statement that it will “consider” the NO<sub>x</sub> SIP Call requirements to be met by compliance with CAIR.

<sup>101</sup> 69 Fed. Reg. 32684 at 32701.

<sup>102</sup> EPA states in its IAQR proposal that it “analysis shows that under the proposed annual caps, EGUs in the SIP Call region would emit less during the ozone season that they were allowed to emit under the NO<sub>x</sub> SIP Call.” 69 Fed. Reg. 4566 at 4633. However, we could not find any such analysis in the docket.

<sup>103</sup> Ozone is not a serious problem in the winter. NO<sub>x</sub> reductions in the non-ozone season will not meaningfully help states address their ozone nonattainment problem.



season. Modeling predictions are simply not an adequate or permissible substitute for enforcement.

EPA implies that repeal of the seasonal NOx caps required by the NOx SIP Call is justified by its belief that compliance for sources would be simplified and the administrative burden of implementing both a seasonal and an annual program would be eased. Here again, EPA provides only its conclusion without any detail or supporting rationale. It does not allege or demonstrate that complying with or administering the two programs would pose a hardship—certainly not one sufficient to justify doing away with one of the programs. In fact, states are already administering the NOx SIP Call seasonal caps. It should not be difficult at all for either a source or a state to keep track of both annual emissions and seasonal emissions. Both have compliance duties under the Clean Air Act that are far more complex. In any event, compliance with a lawful regulatory requirement cannot be excused on grounds of administrative convenience.

2. EPA’s Decision not to Provide NOx Early Reduction Credits is Correct.

We support EPA’s decision not to allow the generation and use of NOx ERCs.<sup>104</sup> EPA projects that large number of ERCs would be generated, primarily during the winter. We agree with EPA that use of NOx ERCs for CAIR compliance purposes could delay progress towards achieving the CAIR NOx caps and also could reduce the amount of ozone-season NOx reductions. Overall progress towards the NOx caps could be especially delayed in states not subject to the NOx SIP Call.<sup>105</sup> And reducing the amount of ozone-season reductions would be especially problematic in the event that EPA moves forward with its proposed repeal of the NOx SIP Call caps on ozone-season NOx emissions.

If EPA does decide to allow use of NOx ERCs, then it must provide the following minimum safeguards against compromise of the CAIR and the NOx SIP Call programs:

- Retain the seasonal NOx caps in the NOx SIP Call, and allow sources to use ERCs ONLY for compliance with the CAIR annual NOx caps; and

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<sup>104</sup> 69 Fed. Reg. 32864 at 32702.

<sup>105</sup> This would result from the use of NOx ERCs generated by winter NOx reductions within the NOx SIP Call region for compliance after 2010 by sources located in non-NOx SIP Call states.

- Allow the use of ERCs ONLY by sources in states subject to both the NOx SIP Call and CAIR.

#### C. Timing of Compliance Dates.

We support EPA's proposal that the compliance dates begin at the beginning of a calendar year, rather than during the middle of a year.<sup>106</sup> This is much simpler administratively, and no sufficient offsetting benefits from use of a partial year are apparent. Specifically, we urge EPA to set the SO<sub>2</sub> compliance date at January 1, 2010, and the Phase 1 and 2 NOx compliance dates at January 1, 2010 and January 1, 2012, respectively. In the event that EPA nonetheless allows the use of partial year compliance dates, they must begin prior to 2010 and 2012 respectively.

#### D. SO<sub>2</sub> Allowance Shifting.

EPA proposes to permit units at a Title IV facility to shift SO<sub>2</sub> allowances among all units at the facility.<sup>107</sup> Specifically, EPA would “revise the Acid Rain regulations to allow a unit to use for compliance any allowance from other units at the same source.”<sup>108</sup> This proposal is inconsistent with the Title IV Acid Rain provisions and should not be adopted. As EPA recognizes, there are myriad references in Title IV to the effect that a *unit's* SO<sub>2</sub> emissions may not exceed the SO<sub>2</sub> allowances *held for that unit*.<sup>109</sup> This language is crystal clear and unambiguous on its face. If an allowance is held for a particular unit, it cannot be held at the same time for a different unit without rendering the statutory language meaningless. EPA attempts to get around this clear language by arguing that the statute does not specify what kind of “account” the unit's allowances must be held in. This attempt must fail. It matters not what type of account a unit's allowance are held in, or even whether they are held in accounts at all. Whatever the allowances are held in, they must be held *for that unit*—not another unit, whether it be

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<sup>106</sup> 69 Fed. Reg. 32864 at 32690-91.

<sup>107</sup> 69 Fed. Reg. 32684 at 32698-701.

<sup>108</sup> 69 Fed. Reg. 32684 at 32700.

<sup>109</sup> 69 Fed. Reg. 32684 at 32698.

another unit at the same facility, a facility owned by the same company, or a facility on the other side of the country.<sup>110</sup>

#### E. Other Cap and Trade Program Issues.

First, we urge EPA to adopt some mechanism to reduce the use of excess of banked SO<sub>2</sub> allowances to comply with CAIR caps after 2010. At that point, PM and many ozone areas will have passed their attainment dates, and it is important to increase actual reductions at that point rather than to allow banked allowances to be used indefinitely. EPA could accomplish this through the use of a “flow-control” mechanism as used by the Ozone Transport Commission, or it could increase the retirement ratio for allowances as time went on.

Second, EPA encouraged states in the NO<sub>x</sub> SIP Call to adopt innovative incentive programs for energy efficiency and renewable energy (EERE) projects in their NO<sub>x</sub> trading programs. At least six states have adopted EERE allowance set-aside programs in their regulations implementing the NO<sub>x</sub> SIP Call: Indiana, Maryland, Massachusetts, New Jersey, New York and Ohio. These are important, innovative market-driven incentive programs that will produce significant environmental benefits. Also, EPA encouraged, and many states provided, allowance set-asides for new, much cleaner sources such as combined-cycle gas turbine plants. We urge the US EPA to include a provision in its model cap and trade rule that would create an allowance set-aside for these purposes.

We also suggest that EPA include a model rule provision requiring an auction of a certain portion of the emission allowances allocated to each state.

## **VII. Conclusion**

In conclusion, EPA’s proposal is not sufficiently stringent or prompt to adequately protect public health or to provide timely and adequate emission reductions to allow

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<sup>110</sup> We note that EPA’s only justification for allowing units at the same facility to share Title IV allowances is to provide “compliance flexibility” to reduce “emission penalties” due to source error. This is an insufficient and extremely weak rationale for EPA’s proposed change. It is also unclear how EPA will limit the use of allowance shifting once the statutory mandate that allowances be held for a particular unit is abrogated.

nonattainment areas to achieve attainment of the PM and ozone NAAQS as expeditiously as practicable. EPA must end the long delay in adequately cleaning up power plant emissions by finalizing a stronger rule as soon as possible. Specifically, we urge the Agency to issue a rule by October 31, 2004 that includes the following adjustments to EPA's IAQR/CAIR proposal:

- reduces the annual control region SO<sub>2</sub> cap to about 1.84 million tons (approximately equivalent to a 2 million ton nationwide cap);
- makes the reductions effective in one phase, by 2009;
- reduces the annual control region NO<sub>x</sub> cap in two phases to about 1.04 million tons (approximately equivalent to a 1.25 million ton nationwide cap);
- accelerates the second phase of the reductions to 2012;
- adopts a minimum threshold for state significant downwind contribution at 0.10 ug/m<sup>3</sup>, rather than the 0.15 ug/m<sup>3</sup> threshold proposed, thereby slightly expanding the coverage of the emissions caps and the scope of the reductions;
- follows the approach in the NO<sub>x</sub> SIP Call, and includes reductions of SO<sub>2</sub> and NO<sub>x</sub> from large stationary sources in calculating the CAIR state budgets;
- eliminates the proposed exemption of BART-eligible power plants that are subject to CAIR from more stringent BART requirements;
- does not adopt the "poison pill" provision that would add an attainment threshold test to the "significant contribution" test under Section 110(a)(2)(D) of the Act; and
- includes the other adjustments discussed in these Comments.

Respectfully submitted,

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