

**STAPPA/ALAPCO Response of February 16, 2005
to the****Analysis of the Testimony of John A. Paul**

Supervisor, Regional Air Pollution Control Agency

*On behalf of the State and Territorial Air Pollution Program Administrators (STAPPA) and
the Association of Local Air Pollution Control Officials (ALAPCO)*Subcommittee on Clean Air, Climate Change and Nuclear Safety
Hearing to discuss the need for multi-emissions legislation.
Wednesday, January 26, 2005**Executive Summary**

On January 26, 2005, John A. Paul testified on behalf of the State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO) before the Senate Environment and Public Works Subcommittee on Clean Air, Climate Change and Nuclear Safety at its hearing on the need for multi-emissions legislation. STAPPA and ALAPCO are nonpartisan associations of air pollution control officials with many years of experience on the front lines of the effort to produce clean air for our country.

At the end of the January 26 hearing, Subcommittee Chairman Voinovich noted that he had a document titled, "Analysis of the Testimony of John A. Paul,"¹ and asked that STAPPA and ALAPCO respond to the issues raised in the document. Accordingly, below is STAPPA and ALAPCO's detailed response to the Analysis. Our concerns with S. 131 are based on the fact that this bill asks the public to agree to eliminate current requirements that have led to significant pollution reduction over the past 35 years and, in our view, will, if they are faithfully enforced, continue to move us towards clean air – in exchange for a promise to reduce emissions much later. Additionally, on February 15, 2005, North Carolina Attorney General Cooper expressed his concern and provided the Committee a legal analysis demonstrating that S. 131 significantly

¹ This document does not identify the author. For convenience we refer to this document as "Analysis." S.131 and S. 1844 are similar in most relevant respects. Comments addressed to S.131 in this document are applicable to both bills. Finally, because Mr. Paul's testimony was not limited to his personal views, but represented the position of STAPPA and ALAPCO, we refer to his January 26, 2005, testimony as the "STAPPA/ALAPCO testimony."

undercuts efforts by states that are concerned with pollution from coal-fired power plants to implement multi-pollutant emission reduction programs in their states.

We do not oppose trading programs, nor do we oppose programs that will provide the country with cleaner air sooner. However, in our view, S. 131 would effectively strip state and local governments of their authority under current law to decide whether and when a particular source must reduce its emissions to meet local air quality needs. Under S. 131, decisions about which power plants, refineries and other large polluters would reduce emissions, and when, if ever, those emissions would be reduced at specific plants in impacted communities are to be made by corporate executives who are not accountable to the voters and who, quite naturally, will be guided by their desire to maximize corporate profits rather than health benefits. We believe that elected officials at the federal, state and local levels must retain the authority to decide whether pollution reductions are needed in their jurisdictions to protect their constituents. This overriding principle can only be accomplished by eliminating the numerous provisions in S. 131 that repeal or defer current Clean Air Act (CAA) requirements.

Proponents of the President's Clear Skies bill acknowledge that cleaning up power plant emissions offer significant health benefit to children and the elderly who now suffer premature mortality and asthma from SO₂ and NO_x emissions and to mothers and infants who currently are adversely affected by mercury emissions. These same proponents acknowledge that cleaning up these power plants will save us \$130 billion each year in avoided health care costs. In the several years of debate and discussion of multi-pollutant legislation, no credible argument has been offered as to why these health and economic benefits should not occur as quickly as possible. Based on our members' many years of experience we are convinced that power plants can be cleaned up far more quickly, and will be cleaned up further and more quickly under current law, than the schedules and emission levels contained in S. 131. Having said that, we continue to urge Congress to pass multi-pollutant legislation – legislation with greater emission reductions and shorter time frames than S. 131 – to complement existing authorities and provide faster emission reductions than will occur under today's law.

The Analysis claims that the Acid Rain program is the most successful² clean air program and asserts that S. 131 should be adopted because it is like the Acid Rain program. However, S. 131 is not like the Acid Rain program in several important ways. In contrast to S.131, the Acid Rain program did not provide for banking and trading of all covered pollutants. Rather, the Acid Rain program made intelligent choices and only provided for trading of SO₂, while requiring unit specific emission limits for NO_x. STAPPA and ALAPCO have recommended trading programs for SO₂ and NO_x, but facility-specific emission limits for toxic pollutants such as mercury. Importantly, the 1990 Clean Air Act Amendments specified that the Acid Rain program would serve as an additional obligation to address a regional problem and not serve to displace existing CAA programs. Indeed, rather than eliminating or delaying NSR, air toxics and SIP programs, the legislation that established the Acid Rain program strengthened existing programs and added the MACT program for air toxics that S. 131 would eliminate for power plants and numerous

² We point out, below, that several CAA programs that did not involve banking achieved results that are at least as significant as the Acid Rain program. We also point out several errors in the Analysis, including the assertion that early banking under the Acid Rain program was a clear benefit to the environment.

other sources. These differences are at the core of many of STAPPA and ALAPCO's objections to S. 131.

At various points the Analysis seems to make conflicting arguments: 1) S. 131 would provide faster and greater emission reductions than current law (but would cause no economic harm) and (2) current law requires unrealistic cuts in emissions that would cause great economic harm. The apparent contradiction in these arguments is, however, irrelevant since neither argument is correct. We believe that the combination of SIP changes to meet current NAAQS implementation dates and regional haze programs, promulgation of a utility MACT standard that meets the requirement of the CAA and continued enforcement of NSR and other existing CAA programs will provide greater and quicker emission reductions than S.131, without significant cost to the public.

The Analysis cites to a study by the Energy Information Agency ("EIA"), comparing Senator Carper's bill to Chairman Inhofe's bill to suggest that the emission reduction program recommended by STAPPA and ALAPCO will cause significant economic harm. However, the Analysis ignores an EIA study that considered the emission reduction program that STAPPA and ALAPCO recommended and instead cites to an EIA study of a different emission reduction program³. The EIA study ignored in the Analysis concluded that the program that most closely matches STAPPA and ALAPCO's recommendations would provide earlier and greater emission reductions, at a lower cost to the public, than the Inhofe bill. The Analysis also fails to include any discussion whatsoever of the very substantial benefits associated with the emission reductions recommended by STAPPA and ALAPCO.

The Analysis claims that S. 131 will eliminate litigation about clean air compliance obligations and will provide greater certainty that emission reductions will occur. However, S.131 provides for numerous agency determinations that would have to be made over the next decade for it to be implemented. Each of those determinations is an opportunity for protracted litigation. The history of the CAA and of environmental regulation in general, demonstrates that any program that imposes significant costs on an industry will face court challenges designed to reduce and/or delay emission reductions. Each of the major clean air programs over the past 35 years have been challenged by industry – including the Acid Rain program, which was the subject of three separate industry challenges.

As one might expect, litigation challenging the most fundamental and important provisions of current programs tends to arise in the early years of these programs, with subsequent lawsuits focusing on narrower issues as the program matures. For this reason, we believe it is more reasonable to expect that there would be a greater probability of challenge to the fundamental provisions of a new program – such as Clear Skies or S. 131 – than in established programs such as the SIP, NSR and MACT programs where those issues have already been fought out and resolved. Indeed, the degree of controversy over current multi-pollutant proposals should be taken as a strong signal that ongoing litigation should be anticipated, irrespective of which proposal is adopted.

³ STAPPA and ALAPCO's testimony did not address regulation of CO₂ and thus, our recommendations are closest to those in the Carper bill, without greenhouse gas regulation. In the study cited in the Analysis, EIA also evaluated the costs of the Inhofe bill as against a three-pollutant version of the Carper bill.

The Analysis argues that S. 131 will provide clarity and certainty not found in existing CAA programs that cannot guarantee a specific level of emissions reductions. We respectfully submit that S. 131, which is 265 pages in length and contains numerous inter-related provisions and references to other provisions of the CAA, is far from clear, especially where the bill relies on administrative determinations to be made many years after passage of the law to determine its ultimate impact.

An emissions program that provides for a national cap-and-trade mechanism may be easier for sources to meet and may result in cost savings that would justify such an approach, but these programs do not provide more certainty for either the public or the source as to the specific obligations of the source than an established limit applicable to each plant. Indeed, it would appear that there is a trade-off to be considered between the cost savings associated with trading programs and certainty of emissions reductions as the source is at the mercy of the market and the public is forced to rely on the market and on decisions made by industry⁴.

S. 131 does not provide more certainty that emission reductions will occur where and when they are needed to improve public health – under this bill no one can tell a local air agency what local air quality will be in 2007, 2010 or 2015 and the ability of state and local authorities to provide for cleaner air in their jurisdictions is significantly diminished. The increased uncertainty associated with cap-and-trade programs is greatly exacerbated by the protracted schedules of S.131 and by its elimination of the safeguards against local harm that were a hallmark of the Acid Rain program.

As the Congress moves forward in its deliberations we strongly urge that the public interest, including that of small, medium and large businesses that will bear a substantial part of the \$130-billion-per-year cost of delaying cleanup of power plants, be the sole determining factor, not the interest of a single industry. Toward that end we believe there are two questions that must be answered:

1. Has the utility industry presented such a compelling case of financial disaster as to overcome the clear, documented, public health and economic cost of delaying power plant cleanup for more than a few years?
2. Has the utility industry presented a compelling case that proves, beyond any doubt, that longstanding CAA provisions that allow federal, state and local authorities to protect local air quality must be jettisoned here, where they were not abandoned in the Acid Rain program, in order to improve air quality?

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**POINT-BY-POINT RESPONSE TO
THE ANALYSIS OF STAPPA AND ALAPCO'S TESTIMONY**

⁴ For example, as we understand them, the provisions of S. 131 would allow a source to “borrow” allowances indefinitely and never repay them – thus never reducing emissions to the levels promised in the legislation.

In the following section, STAPPA and ALAPCO provide a specific response to the points raised in the Analysis of the associations' January 26, 2005 testimony provided by Senator Voinovich. Following the format of the Analysis, we provide the portion of the STAPPA/ALAPCO testimony cited in the Analysis, followed by a summary of the Analysis that appears to address that portion of the STAPPA/ALAPCO testimony and then provide STAPPA and ALAPCO's response to that portion of the Analysis.

Testimony of STAPPA/ALAPCO⁵

“S. 1844 would postpone until 2018 the final date for industry compliance with the NO_x, SO₂ and mercury caps... And for NO_x and SO₂, it is not only nearly a decade later than state and local attainment deadlines; it is also clearly counter to the Clean Air Act requirement for attainment as expeditiously as practicable.”

Analysis of STAPPA/ALAPCO's Testimony

“The Acid Rain program, the most successful Clean Air Act program, allows banking.”

STAPPA/ALAPCO Response

Synopsis: The Analysis does not dispute STAPPA and ALAPCO's testimony concerning the overly long compliance deadlines in S. 131. Nor does it provide a justification for delaying the health, environmental and economic benefits of cleaning up power plant emissions for half a generation. Instead, the Analysis offers an incomplete and irrelevant observation concerning the Acid Rain program.

Instead of addressing the core issues in STAPPA and ALAPCO's testimony, the Analysis picks up a thread – the associations' observation that the overly long statutory compliance dates of S. 131 are exacerbated by the trading provisions of the bill – and seeks to defend the entire schedule by noting that the Acid Rain Program, which it asserts is “the most successful Clean Air Act program,” contained banking provisions. It is true that the Acid Rain program allows banking for SO₂ emissions. However, it did not allow banking for NO_x emissions, providing instead an emission limit to be met by each emissions unit – much as STAPPA and ALAPCO are now advocating for mercury emissions. Moreover, the 1990 CAA Amendments strengthened other CAA programs, including the NSR, SIP and air toxics (MACT) programs and were designed to supplement, not replace those programs. One of the strengths of the Acid Rain program was that it did no harm to state and local programs. S. 131 fails to follow the lead of the Acid Rain program in terms of making intelligent choices about the form of regulation, preserving existing successful programs and respecting the role of state and local governments in ensuring clean air for their residents.

The Analysis does not provide a reason for its assertion that the Acid Rain program is “the most successful Clean Air Act program.” We believe the most appropriate measure of an

⁵ The Analysis referred to selected portions of STAPPA and ALAPCO's testimony; therefore, in this response we address only those portions of the STAPPA/ALAPCO testimony referenced in the Analysis.

environmental program is whether it achieves its environmental goals – not whether it costs industry less than was feared.

The Acid Rain program was intended to correct the problem of acid rain in this country. Sadly, it has not. Studies done by the federal government to date show that even with the emission reductions called for in the Acid Rain program, sensitive areas in the Adirondacks will continue to degrade. The 1998 National Acidic Deposition Assessment Program (NAPAP) report, “Biennial Report to Congress: An Integrated Assessment,” found that 24 percent of Adirondack lakes are seriously acidic and nearly 50 percent are sensitive to acidic deposition. The NAPAP report further stated that, even with the reductions required by the Clean Air Act, the number of acidic lakes in the Adirondacks will double by 2040. In October 1995, EPA issued the “Acid Deposition Standard Feasibility Study: Report to Congress.” Both the October 1995 EPA report and NAPAP report concluded that, to realize the protection of sensitive ecosystems, additional reductions of SO₂ and NO_x emissions in the range of 40 to 50 percent or more were needed.

In 2000, the U.S. General Accounting Office (“GAO”) issued a report on acid rain emission trends and effects on the eastern United States.⁶ The GAO report concluded that years of acid deposition in the Adirondacks have depleted the capacity of soils and vegetation to neutralize acids and as a result nitrates are able to flow freely into streams and lakes and render them lifeless. The GAO report also concludes that it could take decades or even centuries for the soils and water bodies in the Adirondacks to recover from the effects of acid deposition (and that some may never recover) without further reductions in NO_x emissions.

The Hubbard Brook Research Foundation, a noted research organization working in cooperation with EPA, the Forest Service and other organizations, reports that “only modest improvements in ANC [Acid Neutralizing Capacity], an important measure of water quality have occurred in New England. No significant improvement in ANC has been measured in the Adirondack or Catskill Mountains of New York.” The Foundation echoes the views of others who have studied this issue when it calls for emission reductions well beyond those required by the Acid Rain program “[s]pecifically, with an additional 80 per cent reduction in sulfur emissions from electric utilities streams such as those at HBEF [the Hubbard Brook Experimental Forest] would change from acidic to non-acidic in approximately 20-25 years.” http://www.hubbardbrook.org/hbrf/publications/Acid_Rain_Revisited.pdf.

This problem is not limited to the Northeast. Indeed, a recent study by the National Park Service concludes that visibility, ozone levels and acid rain in the Great Smoky Mountains National Park had not improved between 1994 and 2003. Indeed, according to this study, only three of 49 national parks experienced statistically significant reductions in sulfate deposition. Performance with respect to other forms of acid rain was even worse, as only two parks showed a statistically significant improvement in nitrate deposition, while four parks experienced a statistically significant increase in this period; no park showed a statistically significant improvement in ammonium deposition, while five parks experienced a statistically significant increase in ammonium deposition. Only three of 49 parks experienced a statistically significant

⁶ *Acid Rain: Emissions Trends and Effects in the Eastern United States*, U.S. GAO, Report NO. [RCED-00-47](#), March 9, 2000

decrease in ozone concentrations (8-hour maximum), while 10 parks were subjected to statistically significant increases. At eastern parks, only one showed an increase in clean visibility days. <http://www2.nature.nps.gov/air/who/GPRA/GPRA2004review02042005.pdf>. The limited scale of environmental improvement during this period is also evident in the West, as many western parks, including Yellowstone and Grand Canyon, show increases in ozone concentrations, no decline in sulfate deposition, but increased deposition of nitrates and ammonium. <http://www.ncseonline.org/NLE/CRSreports/05Jan/RL32420.pdf>.

Moreover, the Acid Rain program still has not reduced utility emissions to the promised levels. At no time since full implementation of the Acid Rain program have annual SO₂ emissions been equal to or less than the allocation for that year. SO₂ emissions are not projected to be below cap levels for several more years – almost a decade after the date when most would have assumed that actual emissions would be below the cap. Indeed, the general recognition that the Acid Rain program will not achieve its environmental goals is one of the factors that prompted a number of states, as disparate as New York and North Carolina, to enact their own multi-pollutant programs limiting power plant emissions.

Other Clean Air Act programs that do not involve banking can lay claim to emissions reductions that exceed those of the Acid Rain program. These include the SIP programs administered by state and local authorities that reduced PM₁₀ emissions in this country by over 80 percent in 10 years⁷, the lead phase-down program that reduced lead poisoning in children by 90 percent in its first decade⁸ and the mobile source program that now achieves over 99 percent reduction in pollutants from vehicles. Indeed, recent analysis has shown that the rate of decline in SO₂ emissions remained the same in the years after passage of the Acid Rain program as it was (due to SIP, NSR and NSPS programs) before that program. See, Likens, *et al*, cited in http://www.hubbardbrook.org/hbrf/publications/Acid_Rain_Revisited.pdf at p. 10.

The Acid Rain program was certainly a useful step, but success will not be achieved until there are greater emission reductions from the utility sector. For this reason, among others, STAPPA and ALAPCO support multi-pollutant legislation with the rates and compliance dates set out in our January 26, 2005 testimony.

⁷ Indeed, “command-and-control” SIP programs implemented by state and local governments reduced PM₁₀ emissions from utilities from 1.6 million tons per year to less than 250,000 tons per year – a reduction of 89 percent. http://www.netl.doe.gov/coal/E&WR/pubs/IEP%20Program%20Summary%20Final%20Feb%202005_2.pdf.

⁸ Compared to the acid rain program, other programs have been far more successful in achieving environmental results. The elimination of lead in gasoline reduced mobile source lead emissions from greater than 40,000 tons per year to zero in a relatively short period of time. EPA reports that lead emissions dropped by 93 percent in the period from 1982 to 2002, resulting in a 94-percent reduction in lead in the ambient air from 1983 to 2002. <http://www.epa.gov/airtrends/lead.html>. Along with other federal programs aimed at reducing lead poisoning in children, the phase out of leaded gasoline produced significant health benefits. At the time of the start of federal lead abatement programs (1976-1980) 13.5 million children under the age of five (88.2 percent of the population) had blood lead levels above the 10ug/dl that is the level of concern established by CDC; by 1988-1991 lead in gasoline had been totally eliminated and the number of children with elevated blood lead levels had been reduced to 1.7 million (8.6 percent of the population). This progress has been sustained in other programs – for the 1991-1994 time frame, only 890,000 children (4.4 percent of the population) had elevated blood lead levels, while in the 1999-2000 time frame, these figures were further reduced to 434,000 children (2.2 percent of the population). The Department of Health and Human Services has established a goal of eliminating lead poisoning in children within the next five years. <http://www.cdc.gov/nceh/lead/research/kidsBLL.htm#National%20surveys>.

Testimony of STAPPA/ALAPCO

“Moreover, compliance will be deferred even further – to the mid-2020s – due to the impact of the bill’s credit banking and trading program.”

Analysis

“According to the Environmental Protection Agency, ‘The banking aspect of the trading program creates incentives for electricity generators to reduce their emissions further and more quickly than the law requires.’ The results have been impressive: ‘Reductions in the early years of the program averaged 25% below allowable levels, resulting in early benefits to human health and the environment.’”

STAPPA/ALAPCO Response

Synopsis: Again, the Analysis does not dispute STAPPA and ALAPCO’s testimony that compliance with caps will be deferred to the mid-2020s. Nor does it demonstrate that any early emission reductions under S. 131 would be greater than effective enforcement of current law.

While banking creates incentives for early reductions, those reductions come at the expense of higher emissions in later years and create the potential to mislead the public as to when the promised emission reductions will occur. Banking provides no net gain to the environment. STAPPA and ALAPCO are not opposed to the concept of banking or to the flexibility that banking provides industry in the early years of a program. However, the possibility of banking should not provide an excuse to enact overly lenient compliance deadlines. S. 131 could easily achieve greater health benefits by moving the compliance dates forward – and still allow banking.

We do not view the allowance banking that occurred in the early years of the Acid Rain program as an unqualified success. A close look at how some of the “emission reductions” occurred in the early years of the program shows one of the risks of banking programs – the creation and use of excess allowances that do not benefit the environment. In those years, the banking provisions created a fund of allowances – in excess of 10 million tons of allowances were banked in the first five years of the program – allowances that permit higher emissions today and in the future. While the majority of those allowances represent legitimate emission reductions that were an environmental benefit, others were created without any early benefits to human health and the environment.

How did this occur? The Acid Rain program designated “Phase I” units that were subject to an emissions cap effective 1995 and “Phase II” units whose emissions were not capped until 2000. SO₂ emissions from Phase I units declined by 18 percent – several million tons – in one year. Much of that reduction was the result of burning lower sulfur coal and some SO₂ scrubbers were installed, but one of the Acid Rain compliance strategies in those early years was “load shifting,” where the utility industry simply shifted some generating load from Phase I units to Phase II units. In that way the Phase I units could stay below their caps and bank

allowances for later use at almost no cost to the company. However, that practice also generated allowances without reducing real world emissions, since the Phase II unit's emissions would increase. This load shifting became more pronounced in the years after 1995 as emissions from utilities increased for several years following their 1995 low point, even as Phase I emissions remained constant and allowances were banked. Once the Phase II units were included in the program in 2000, utilities stopped banking emissions and each year since that time utility emissions have been greater than Acid Rain caps. <http://www.epa.gov/airmarkets/cmprpt/arp03/summary.html>.

Testimony of STAPPA/ALAPCO

“For mercury, this protracted compliance schedule is about 15 years later than Congress allowed under the Clean Air Act for utilities and other sources to comply with MACT.”

Analysis

“The Clean Air Act does not require a specific regulatory approach, such as MACT, nor does it require a specific level of reduction. Under the MACT framework EPA must determine what reduction levels are achievable by analyzing emission controls used by similar sources of pollution. The law requires EPA to set a minimum reduction, determined by averaging the emission control achieved by the best performing 12 percent of an industry.”

STAPPA/ALAPCO Response

Synopsis: Once EPA made its regulatory determination in 2000 that regulation of mercury emissions under the MACT program was feasible, the CAA provides a specific timetable for promulgation of MACT standards and a specific timetable for compliance with those standards – 2007. Moreover, as the Analysis states, the minimum emissions reduction required by MACT standards is to be based on an evaluation of specific, objective data. For this reason, the level of emission reductions to be expected in 2007, if EPA complies with the requirements of the CAA in setting standards, can be projected with reasonable certainty.

We assume the comment in the Analysis is meant to argue that EPA was not required to make its finding in 2000 finding that mercury is a toxic air pollutant, irrespective of how compelling the science demonstrating mercury's toxicity. This is simply incorrect; section 112(n) of the CAA specifically required EPA to study whether control of toxic emissions from electric utilities was appropriate and necessary. Given the compelling public health data and reasonable cost of mercury removal, EPA could not lawfully have reached a conclusion not to regulate utility mercury emissions. Irrespective of this point, EPA did make a finding in 2000 in the affirmative, thus triggering the nondiscretionary control requirements and timetables established in section 112 of the CAA for the MACT program. Section 112(n) provides that EPA “shall establish [112] standards” [emphasis added] for utilities upon making its finding. 42 U.S.C. 7412(n). Since section 112(b)(3)(c) establishes specific delisting provisions for air toxics, EPA cannot simply reverse the 2000 determination and delist mercury unless it can show that these emissions “may not be reasonably anticipated to cause any adverse effects to the human health or adverse environmental effects.” 42 U.S.C. 7412(b)(3)(c). EPA concedes that utility

emissions of mercury are, indeed, a major health concern and has not attempted to make a contrary showing.

EPA has not come forward with specific emissions data for the years after 2025, but its projections for early banking suggest that there will be significant banked emissions. Thus, STAPPA and ALAPCO's testimony that the final mercury emission reductions will not occur until 15 years after the MACT deadlines – or 2022 (2024 if section 112 waivers are provided) is reasonable and even generous regarding the timelines of S. 131.

While a specific reduction level is not set out in section 112 for electric utilities, EPA's discretion in establishing the required reduction level is quite narrow. Although EPA has discretion to establish more stringent control requirements, the CAA is quite specific in requiring that the MACT requirement be no less stringent than that achieved by the best performing 12 percent of the industry. If EPA faithfully adheres to this requirement, the data concerning existing units should lead to a fairly predictable control level. The recent determination by the EPA Inspector General that the proposed MACT levels were not set in accordance with this requirement⁹ gives us great concern that EPA may not comply with the law in setting the final utility MACT standards. In our judgment, however, this concern does not provide a justification for supporting a statute that would eliminate the MACT requirement – since there is no compelling reason to believe that an agency would feel any more obliged to enforce and comply with Clear Skies or S. 131 than the MACT requirements.

Testimony of STAPPA/ALAPCO

“For mercury, this protracted compliance schedule is about 15 years later than Congress allowed under the Clean Air Act for utilities and other sources to comply with MACT.”

Analysis

“No commercially available technologies can reduce mercury emissions, from all coal types, on a consistent basis, by 90 percent in three years. According to the Energy Information Administration: ‘With currently available technologies, it is not known whether this level of removal is achievable for all plant and coal types’. This is particularly true for plants using subbituminous and lignite coals. Technologies for removing SO₂ and NO_x are not as successful at removing mercury from these lower rank coals and mercury specific control technologies that can achieve greater than 90-percent removal have not been demonstrated.” (Energy Information Administration, “Analysis of S. 1844, the Clear Skies Act of 2003; S. 843, the Clean Air Planning Act of 2003; and S. 366, the Clean Power Act of 2003,” May 2004)”

“Imposing an unrealistic, 90 percent command-and-control reduction by 2008 would cause severe economic harm to the coal industry, which provides 52 percent of the nation's electricity. According to the Energy Information Administration, this approach would cut coal-fired electric generation by 55 percent, coal production by 50 percent, and destroy 32,000 coal

⁹ Additional Analyses of Mercury Emissions Needed Before EPA Finalizes Rules for Coal-Fired Electric Utilities, Office of the EPA Inspector General, Report No. 2005-P-00003, February 3, 2005.

jobs. (Energy Information Administration, “Analysis of S. 1844, the Clear Skies Act of 2003; S. 843, the Clean Air Planning Act of 2003; and S. 366, the Clean Power Act of 2003,” May 2004).”

STAPPA/ALAPCO Response

Synopsis: STAPPA and ALAPCO did not testify as to the specific control requirements that should be established in the utility MACT. Further, the Analysis does not dispute that EPA is currently obliged to promulgate a mercury MACT standard that has a compliance date of 2007, which is at least 15 years earlier than the projected dates for reaching the mercury emission caps in S.131. Finally, while the Analysis argues utilities cannot attain a 90 percent reduction in mercury emissions by 2007, it does not dispute or provide any reason to fail to adopt the emission reduction schedule that STAPPA and ALAPCO recommended as part of a reasonable multi-pollutant bill.

While STAPPA and ALAPCO’s testimony did not address specific mercury MACT control levels, we will take this opportunity to correct some errors in the Analysis and set out some factors that lead us to believe that, if EPA sets the MACT standards as the law requires, we would anticipate significant reductions of mercury and other toxic air pollutants.

Under the MACT program, the issue of whether a technology is “commercially available” does not arise. EPA’s role is limited to determining the best performing 12 percent of the industry and averaging the emission reduction performance of that group. EPA also has the authority to determine reasonable subcategories of an industry and base its requirements on the performance of the best performing units within each of those subcategories¹⁰.

The data we have reviewed show that there are a number of units that burn bituminous coals and are equipped with FGD (wet scrubbers) or spray dryers (dry scrubbers) and fabric filters (baghouses). These units have very high (approximately 98 percent) mercury reduction performance¹¹. If EPA does not establish subcategories, these units should drive the average of the top 12 percent of the entire industry to a very stringent control requirement. If EPA establishes subcategories as proposed, these units should at least drive the average for the top performers in the “bituminous coal burning” subcategory, which represents about half of the coal burned, to very stringent requirements. As to the subbituminous and lignite burning categories, the mercury emissions data also show that a number of existing units, either because they are also equipped with baghouses, or for other reasons, have much higher mercury reduction performance than the average or poor performing units within the group. For this reason, we would also expect to see significant reductions in mercury (and other toxic) emissions if EPA follows the requirements of section 112 in setting the utility MACT standards.

10. While there would appear to be reasonable justification for establishing separate subcategories for conventionally fired units and IGCC units, there is substantial controversy as to whether EPA may establish subcategories based on the type of coal the unit is currently burning. In STAPPA and ALAPCO’s experience, many units have the capability of burning different rank coal and often burn blends of coal. Moreover, many units changed the type of coal they combusted in response to the Acid Rain program and would be expected to make further changes in response to multi-pollutant legislation or EPA’s proposed CAIR rule.

11. U.S. EPA Performance and Cost of Mercury and Multipollutant Emission Control Technology Applications on Utility Boilers, prepared for the Office Of Research and Development, EPA-600/R-03-110 (October, 2003).

The Analysis seems to claim that the MACT standard-setting process would impose “an unrealistic 90 percent command and control requirement by 2008” that would cause severe economic harm to the coal industry. We find it difficult to understand how requiring the industry to reach a control level that has already been achieved by one-eighth of the industry is “unrealistic.”

While section 112 is specific in setting the MACT compliance dates, EPA is authorized in certain circumstances to extend the compliance dates for individual units with specific problems. EPA’s rulemaking designating mercury as a toxic air pollutant was commenced in 1990 and concluded in 2000¹². Thus, the utility industry has been on notice and has had the opportunity to prepare for these requirements for over a decade. We believe that this industry has been provided ample time to meet MACT requirements. The FGD and SCR technologies mentioned above have been commercially available for more than 35 years and 10 years, respectively. All that is required for units that are burning bituminous coal is to place an order for these controls. Since many units that are now burning subbituminous coals previously fired bituminous coal and retain the capability to burn the latter, they may also utilize proven technologies to meet their obligations especially if they are also planning to reduce SO₂ and NO_x emissions to meet a SIP requirement, CAIR rule or a federal or state multi-pollutant cap.

For units burning other coals a technology called Activated Carbon Injection (ACI), sometimes in conjunction with installation of a baghouse (also a well-demonstrated technology), may be the most economical way to meet MACT limits. Others may require inexpensive pretreatment systems that oxidize elemental mercury before introducing the gas stream into conventional treatment devices. ACI is currently used to meet mercury removal MACT requirements for municipal waste combustors and some modest research efforts have been completed in some electric generating units to evaluate its effectiveness. In other rulemaking actions, industry frequently comments that it requires greater permitting flexibility since the time to bring new products to market has been dramatically reduced. We see no reason to believe that the pollution control industry needs a decade or more to bring products such as ACI to market. Indeed, if one looks at the actual research reports, these technologies do not appear to be “unrealistic,” even in the short term. With respect to ACI, which is currently used to control mercury emissions in other industries, the researchers report:

“[s]ince the [ACI] technology is relatively simple and well proven on a similar scale; the process contingency was set at 5%. ACI equipment can be installed in a few months, therefore, no adjustment was made for interest during construction.”

Final Report for Pleasant Prairie Power Plant Unit 2, Report No 41005 R11, p. 43.

<http://www.netl.doe.gov/coal/E&WR/mercury/controltech/pubs/Final%20Report%20Pleasant%20Prairie.pdf>

With respect to the use of pretreatment oxidizers to facilitate mercury removal at lignite fired boilers, the researchers state:

¹² Indeed, the 1990 Clean Air Act Amendments required EPA to complete its study by November, 1993. After being sued for missing that deadline, EPA signed a settlement agreement in 1995 obligating it to complete its study and issue final MACT regulations by 2000. EPA is currently obligated to complete its rulemaking by March, 2005.

“[t]he oxidation process is proven at the pilot-scale and in short term full scale tests. Additional optimization is continuing on oxidation technologies and this project focuses on month long full scale testing.”

Quarterly Report, "Large-Scale Mercury Control Technology Testing for Lignite-Fired Utilities – Oxidation Systems for Wet FGD" for the period of July 2004-September 2004.

<http://www.netl.doe.gov/coal/E&WR/mercury/control-tech/pubs/41991%20093004.pdf>

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Thus, it would appear that the ongoing research is aimed at “optimizing” existing systems that can “be installed in a few months.” Further, the Analysis offers no support for its assertion that mercury controls are not commercially available and is apparently incorrect. Several vendors of mercury control equipment have recently testified that they either have effective controls on the market now or will introduce such controls in 2005.

*We strongly disagree with the suggested test of “commercial availability” for determining when a technology should be required since this allows the industry, not the Congress or the states, to determine when emission reductions should occur. This test presents “the chicken or the egg” issue – which comes first, the rule or commercial availability? There is no real doubt that effective mercury controls are feasible and can be introduced in the next few years, but until there is a market for a product (*i.e.*, willing customers) it may not be in anyone’s interest to invest the capital necessary to make the product “commercially available.” If regulation can only occur after a market is established, then such laws can only confirm what an industry is already doing. Moreover, this approach puts industry, not the Congress, in the position of deciding when to move forward with emission reductions under the CAA. If EPA, through the MACT process, or Congress in multi-pollutant legislation, establishes rigorous requirements for mercury controls, the history of the CAA teaches us that industry will find a way to achieve the “unachievable” – and at less cost than has been predicted.*

Testimony of STAPPA/ALAPCO

“With respect to NO_x, our analysis identifies an interim cap of 1.51-1.87 million tons per year (tpy) by 2008 and a final cap of 0.88-1.26 million tpy by 2013, compared to S. 1844’s NO_x caps of 2.1 million tpy by 2008 and 1.7 tpy by 2018. For SO₂, our analysis identifies an interim cap of 3.0-4.5 million tpy by 2008 and a final cap of 1.26-1.89 million tpy by 2013, compared to S. 1844’s SO₂ caps of 4.5 million tpy by 2010 and 3.0 million tpy by 2018. A regional SO₂ cap for western states should not interfere with the regional haze rule’s SO₂ annex. And for mercury, our analysis identifies an interim cap of 15-20 tpy by 2008 and a final cap of 5-10 tpy by 2013, compared to S. 1844’s caps of 34 tpy (which is even weaker than the already-too-weak 26-tpy cap originally included in Clear Skies) in 2010 and 15 tpy in 2018.”

Analysis

“The levels recommended by Mr. Paul are very similar to those called for in the Carper bill. The Carper bill, according to the Energy Information Administration, is not cost-effective and would seriously harm the economy.”

STAPPA/ALAPCO Response

Synopsis: Contrary to the representations in the Analysis, when EIA evaluated the emission reduction program recommended by STAPPA and ALAPCO as set out above, it concluded that the costs of that program to the consumer would be less than the cost of the Inhofe bill.

STAPPA and ALAPCO have not endorsed any bill, did not testify in favor of any bill and did not address the question of greenhouse gas reductions. Further, EIA did not say that the Carper Bill “is not cost effective and would seriously harm the economy.”

The EIA statements cited in the Analysis largely reflect EIA’s view of the impacts of the CO₂ reductions required by the Carper Bill and therefore do not provide an “apples-to-apples” comparison of the cost and impact of the 3-p portion of the Carper Bill, the Inhofe Bill or the levels and timeframes recommended by STAPPA and ALAPCO. Further, the EIA analysis does not attempt to quantify the benefits (or benefits foregone) of the competing legislative proposals or the control requirements recommended by STAPPA and ALAPCO.

The same EIA report contained an analysis of the 3-p components of the Carper Bill that would have permitted a fair evaluation of the adverse impacts of the control levels recommended by STAPPA and ALAPCO. This evaluation was ignored in the Analysis, even though it concluded that the cost differences between the two proposals were quite small. Notably, this evaluation concluded that the earlier and more aggressive reductions in NO_x, SO₂ and mercury of the Carper bill would be accomplished with lower electric costs to the consumer than the Inhofe Bill.

Analysis

According to EIA under the Carper bill, the amount of electricity generated from coal would drop 24.2 percent by 2025, coal production would drop 302.2 million tons by 2025 and coal mines would lose 12,000 jobs by 2025. The Carper bill would also increase natural gas use thereby increasing natural gas prices for consumers by \$2.9 billion in 2020, more than three times the increase under the Inhofe bill, at \$0.8 billion.

Net natural gas imports would increase 4.7 percent by 2020 and net natural gas imports would account for 24.3 percent of the total gas supply; dependence on natural gas imports would increase 8.8 percent by 2025. EIA likely has underestimated the increase in natural gas prices because the current price of natural gas is higher than used in EIA’s estimate.

The Carper bill restricts mercury trading, making the trading program less effective. The most successful emission trading programs, such as EPA’s Acid Rain program, do not restrict the ability of a source to trade so long as overall cap levels are met. The Carper bill’s restricted mercury trading would lead to higher industry costs, and therefore more fuel switching, than would occur with unrestricted trading under the Inhofe bill. The cost of complying with the Carper bill’s mercury cap is likely to be even greater than EIA’s estimate. This is because the cost of certain mercury control technologies is 60 percent higher than estimates used by EIA.

STAPPA/ALAPCO Response

Synopsis: Much of the discussion in the Analysis respecting the use of coal versus natural gas to generate electricity is based on EIA's assumptions about the availability of greenhouse gas allowances generated outside of the United States and is not related to STAPPA and ALAPCO's testimony. The Analysis does not quantify the differential costs of allowing mercury trading at the 5- to 10-tpy level compared to unit-specific costs at that level. At that level of emissions, we believe the differential costs would be small and not commensurate with the public health risk.

As pointed out above, the Acid Rain program does not allow unrestricted trading of all covered pollutants. We believe that mercury, which has been shown to be deposited within a relatively short distance from its emission point in many instances, is susceptible to the creation of locally high areas of concentration and harm, and should not be traded. The Analysis ignores this point in STAPPA and ALAPCO's testimony. Moreover, to the extent that mercury trading reduces the health benefits of the program while still imposing control costs on the industry its effectiveness is reduced, not increased.

The history of CAA regulation strongly suggests that the cost of mercury controls will be far less than early estimates. Finally, the Analysis fails to claim, let alone demonstrate, that the costs for mercury control are beyond its means, given its expected future revenue stream, or not in the public interest, given the current health care costs associated with mercury poisoning.

Testimony of STAPPA/ALAPCO

“Contrary to STAPPA and ALAPCO’s firm belief that new and existing power plants must continue to be subject to NSR, S.1844 repeals this important program for affected sources, including requirements for new units to install state-of-the-art Lowest Achievable Emission Rate control technology and acquire emission offsets in nonattainment areas, and install Best Available Control Technology and protect air quality increments to guard against adverse local air quality impacts in attainment areas. Existing sources making major modifications should be required to install the best available controls on affected units at the time of modification, acquire any emission allowances required to address emission increases and ensure against adverse local health or environmental impacts. However, in place of all this, S. 1844 regresses to seriously outmoded New Source Performance Standards (NSPS) and, further, rescinds requirements to update the NSPS on a periodic basis. Further, this bill would allow non-utility units from other industries to qualify for this same regulatory relief, as well.”

“S.1844 also eliminates all the requirements of sections 169(A) and (B) of the Clean Air Act, including not only Best Available Retrofit Technology (BART) requirements, which the original Clear Skies bill repealed, but all visibility requirements and regional haze rules. Further, it revokes many Prevention of Significant Deterioration (PSD) requirements and relaxes protections for Class I areas. Moreover, the bill also includes provisions that prevent states from taking credit in their State Implementation Plans for any NSR or PSD requirements they seek to apply to affected units. Opt-in units would also be able to take advantage of these relaxations.”

“With respect to toxic air pollutants, S.1844 repeals the utility MACT rule, including the regulation of non-mercury HAPs, and rescinds residual risk requirements for HAPs, which, under current law, protect the public with an additional margin of safety following application of stringent technology requirements. Once again, the bill would allow non-utility opt-in units to escape these requirements.”

“The bill also seriously undermines states’ abilities to protect air quality in their jurisdictions by prohibiting compliance with any petition under section 126 until 2014. Further, it impedes potential use of this important authority by requiring a downwind area to first demonstrate that all more cost-effective measures have been implemented – a process that will surely result in delay and lead to litigation. In addition, EPA is prevented from exercising its authority to issue a SIP call under section 110 until 2014.”

Analysis

All of the above programs lack the certainty and clarity of Clear Skies and cannot guarantee a specific level of emissions reductions. These command-and-control programs encourage confrontation and litigation, which can seriously delay progress in cleaning the air.

New Source Review provides a clear-cut example of the problems associated with the existing act. Currently there are two conflicting legal interpretations of NSR. The Clinton EPA's 1999 "enforcement interpretation" essentially concludes that many routine maintenance projects trigger NSR. Yet in its August 26, 2003 decision, the United States District Court for the Middle District of North Carolina rejected the Clinton EPA's enforcement interpretation. In fact, EPA has admitted that under the court's analysis, none of the projects undertaken in that case would violate NSR. The NSR program, then, would apply to few facilities, and therefore would not come close to besting the reductions achieved by Clear Skies.

The Section 126 process is unwieldy, time-consuming, and prone to litigation, according to former EPA Administrator Whitman, “[w]hen compared to Clear Skies, this approach will almost certainly involve years of litigation and uncertainty about reduction targets and timetables.”

Clear Skies will require coal-fired power plants to install \$50 billion in new pollution control technologies, thus obviating the need for states to file Section 126 petitions.

STAPPA/ALAPCO Response

Synopsis: S. 131 does not provide either certainty of securing emission reductions when and where they are needed, or clarity. Further, S. 131 will not reduce litigation over the obligations of coal-fired power plants.

We have seen no language in S. 131 that would preclude industry challenges to the numerous determinations that would have to be made over the next decade for it to be implemented. Absent such language we believe it is naïve to assume that any program that imposes significant costs on an industry will not face court challenges designed to reduce and/or

delay emission reductions. While the current NSR enforcement actions and any industry challenge to a properly promulgated MACT standard could take two or three years to resolve, litigation over the DOE and EPA determinations under S. 131 could go on for many years.

Each of the major clean air programs over the past 35 years has been challenged by industry – including the Acid Rain program, which was the subject of three separate industry challenges¹³. As one might expect, litigation challenging the most fundamental and important provisions of current programs tends to arise in the early years of these programs, with subsequent lawsuits focusing on narrower issues as the program matures. For this reason, we believe it is more reasonable to expect that there would be a greater probability of challenge to the fundamental provisions of a new program – such as Clear Skies – than in established programs such as the SIP, NSR and MACT programs where those issues have already been fought out and resolved. Indeed, the degree of controversy over current multi-pollutant proposals should be taken as a strong signal that ongoing litigation should be anticipated, irrespective of which proposal is adopted.

The theory of the NSR enforcement cases against the coal-fired utilities was re-examined by the Justice Department at the beginning of the current Administration and found to be sound. Settlements to date have already resulted in substantial emission reductions. Further, the majority of the courts that have addressed the “routine maintenance” issue have ruled in the government’s favor and trials in the remaining major cases are scheduled to occur in the next year. The routine maintenance issue was decided in the government’s favor at the appellate level in the WEPCO case over 10 years ago. The Duke decision cited in the Analysis is the only decision in the industry’s favor. It has been briefed on appeal and should be resolved in the near future. Petitions under section 126 to abate emissions from upwind sources have provided substantial environmental improvement in the past few years.

The Analysis argues that Clear Skies will provide clarity and certainty not found in existing CAA programs that cannot guarantee a specific level of emissions reductions. S. 131 is 265 pages long. We respectfully submit that no legislation that is 265 pages in length can be considered clear, especially where that legislation relies on administrative determinations to be made many years after passage of the law. Nor can it be considered certain that the caps will ever be met where the bill allows sources to borrow against future allocations of allowances with no specified date when such loans must be repaid. Significantly, the EIA study cited in the Analysis concludes that, because of the safety valve provisions of the bill that allow a company to “pay to pollute,” the promised mercury reductions will not occur. S. 131 also exempts many coal-fired plants from its coverage – mercury emissions from those plants are actually allowed to increase.

An emissions program that provides for a national cap-and-trade mechanism may be easier for sources to meet and may result in cost savings that would justify such an approach, but these programs do not provide more clarity or certainty for either the public or the source as

¹³See, *American Mun. Power-Ohio v. EPA*, 98 F.3d 1372 (D.C. Cir. 1996); *Indianapolis Power & Light v. EPA*, 58 F.3d 643 (D.C. Cir. 1995); *Madison Gas & Elec v. EPA*, 25 F.3d 526 (7th Cir. 1994).

to the specific obligations of the source than an established limit applicable to each plant. Indeed, it would appear that there is a trade-off to be considered between the cost savings associated with trading programs and certainty of emissions reductions as the source is at the mercy of the market and the public is forced to rely on the market and on decisions made by industry¹⁴. The increased uncertainty associated with cap-and-trade programs is greatly exacerbated by the protracted deadlines of S.131.

S. 131 does not provide more certainty that emission reductions will occur where and when they are needed to improve public health – under this bill no one can tell a local air agency what local air quality will be in 2007, 2010 or 2015 and the ability of state and local authorities to provide for cleaner air in their jurisdictions is significantly diminished.

The Clean Air Act provides that

“...air pollution prevention (that is, the reduction or elimination, through any measures, of the amount of pollutants produced or created at the source) and air pollution control at its source is the primary responsibility of States and local government...”

42 U.S.C. 7401(a)(3) [emphasis provided]

S. 131 contains numerous provisions that are contrary to this fundamental principle. It significantly and dramatically undercuts the right of state and local government to protect local air quality. S. 131 effectively removes decision-making about where and when specific emission reductions will occur from elected officials (assisted by unbiased civil servants) and turns it over to traders and industry managers. These new decision makers will never be held accountable to the public for their decisions and can be expected, quite naturally, to base their decisions on what will maximize profits for the company rather than what the public interest requires.

It also undercuts the right of states, either individually or acting in concert, to address state-wide or regional concerns by enacting state or regional cap-and-trade programs. On February 15, 2005, North Carolina Attorney General Cooper expressed his concern over this issue and provided the Committee a legal analysis demonstrating that S. 131 significantly undercuts efforts by states that are concerned with pollution from coal-fired power plants to implement multi-pollutant emission reduction programs in their states. S. 131’s impact in this regard is not limited to North Carolina, a number of other states either have enacted or are in the process or developing multi-pollutant emission legislation to curb emissions from coal-fired utilities.

¹⁴ For example, as we understand them, the trading provisions of S. 131 would allow a source to “borrow” allowances indefinitely and never repay them – thus never reducing emissions to the levels promised in the legislation.