

Final Report
of the
Small Business Advocacy Review Panel
on EPA's Planned Proposed Rules
Federal Implementation Plan for the Clean Air Interstate Rule
and
Response to North Carolina's Petition Pursuant to Section 126 of
the Clean Air Act

June 27, 2005

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1. INTRODUCTION

This report is presented by the Small Business Advocacy Review Panel (SBAR Panel or Panel) convened for two proposed rulemakings on the Federal Implementation Plan for the Clean Air Interstate Rule and the Response to North Carolina's Petition Pursuant to Section 126 of the Clean Air Act that are currently being developed by the U.S. Environmental Protection Agency (EPA). Under section 609(b) of the Regulatory Flexibility Act (RFA) as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), a Panel is required to be convened prior to publication of the initial regulatory flexibility analysis (IRFA) that an agency may be required to prepare under the RFA. In addition to EPA's Small Business Advocacy Chairperson, the Panel consisted of the Director of the Office of Air Quality Planning and Standards within EPA's Office of Air and Radiation, the Administrator of the Office of Information and Regulatory Affairs within the Office of Management and Budget, and the Chief Counsel for Advocacy of the Small Business Administration.

This report includes the following:

- background information on the proposed rule under development;
- information on the types of small entities that would be subject to the proposed rule;
- a summary of the Panel's outreach activities; and
- the comments and recommendations of the Small Entity Representatives (SERs).

Section 609(b) of the RFA directs the Panel to report on the comments of small entity representatives and its findings on issues related to identified elements of an IRFA prepared pursuant to section 603 of the RFA. Those elements of an IRFA are:

- a description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply;
- a description of projected reporting, record keeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirements and the type of professional skills necessary for preparation of the report or record;
- an identification, to the extent practicable, of all other relevant Federal rules which may duplicate, overlap, or conflict with the proposed rule; and
- any impacts on small entities of the proposed rule and significant alternatives to the proposed rule which accomplish the stated objectives of applicable statutes and which minimize any significant economic impact of the proposed rule on small entities.

Once completed, the Panel report is provided to EPA and will be included in the rulemaking record. In light of the Panel report, and where appropriate, EPA will make changes to the draft proposed rule, the IRFA for the proposed rule, or the decision on whether an IRFA is required.

It is important to note that the Panel's findings and discussion are based on the information available at the time the final Panel report is drafted. EPA will continue to conduct analyses relevant to the proposed rule, and additional information may be developed or obtained during the remainder of the rule development process. The Panel makes its report at a preliminary stage of rule development and its report should be considered in that light. At the same time, the report provides the Panel and the Agency with an opportunity to identify and explore potential ways of shaping the proposed rule to minimize the burden of the rule on small entities while achieving the rule's purposes.

Any options identified by the Panel for reducing the rule's regulatory impact on small entities may require further analysis and/or data collection to ensure that the options are practicable, enforceable, environmentally sound, and consistent with the Clean Air Act .

2. BACKGROUND AND REGULATORY HISTORY

2.1 Regulatory History

2.1.1 Regulations Under Consideration

The two rules under consideration concern the transport of fine particles and ozone across state lines. They are being developed as part of the Administration's plan to reduce emissions of nitrogen oxides (NO_x) and sulfur dioxide (SO₂) in states that significantly contribute to high levels of fine particles and/or ozone in downwind states. Counties in downwind states can find it difficult or impossible to attain the National Air Ambient Air Quality Standards (NAAQS) for fine particles and ozone using local controls only. In addition, ambient levels above the NAAQS can affect the health of residents in downwind communities. Interstate transport of these substances thus raises issues of fairness and economic equity between states. Further, transport of these pollutants can be significant, for example, modeling shows that air quality in North Carolina is impacted by emissions from other states as geographically diverse as Michigan and Alabama.

The first rule under consideration - the Federal Implementation Plan for CAIR (CAIR FIP) - is being developed to establish a federal mechanism to ensure compliance with the requirements of the Clean Air Interstate Rule (CAIR). CAIR was published in the Federal Register on May 12, 2005 (70 FR 25162) as part of the Administration's effort to address interstate transport of air pollution. EPA has found that 28 states and the District of Columbia contribute significantly to nonattainment of the national ambient air quality standards (NAAQS) for fine particles and/or 8-hour ozone in downwind states. CAIR identifies the specific amount

by which SO₂ and NO_x emissions must be reduced based on state obligations to address interstate transport of pollutants under section 110(a)(2)(D) of the Clean Air Act. In accordance with section 110 of the Clean Air Act, states have the primary responsibility for developing regulations to implement, maintain and enforce these requirements. CAIR gives states 18 months to submit revised SIPs that fulfill this obligation. Section 110(c) of the Clean Air Act requires the Administrator to promulgate a Federal Implementation Plan (FIP) within two years of finding a plan deficient, unless the state corrects the deficiency and the Administrator approves the plan or plan revision before the Administrator promulgates the FIP.

The second rule under consideration - EPA's Response to North Carolina's Section 126 Petition - is being developed to respond to the petition submitted in March 2004 by North Carolina pursuant to Section 126 of the Clean Air Act. This petition requests that EPA find that certain emissions of SO₂ and/or NO_x from large Electric Generating Units (EGUs) in 13 upwind states significantly contribute to nonattainment and interfere with maintenance by the state of North Carolina with the standards for fine particulate matter and/or ozone. Such findings would authorize EPA to set federal limits for the affected sources. EPA must propose a response to the petition by August 1, 2005, with final action by March 15, 2006.

2.1.2 Public Health and Environmental Concerns

In 1997, EPA revised the NAAQS for particulate matter (PM) to add new standards for fine particles, which they define as particles with diameters smaller than 2.5 micrometers, termed PM_{2.5}. We established health- and welfare-based (primary and secondary) annual and 24-hour (emissions average) standards for PM_{2.5}. Fine particles are associated with a number of serious health effects including premature mortality, aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions, emergency room visits, absences from school or work, and restricted activity days), lung disease, decreased lung function, asthma attacks, and certain cardiovascular problems. The EPA has estimated that attainment of the PM_{2.5} standards would, each year, prolong tens of thousands of lives and prevent tens of thousands of hospital admissions as well as hundreds of thousands of doctor visits, absences from work and school, and respiratory illnesses in children. Individuals particularly sensitive to fine particle exposure include older adults, people with heart and lung disease, and children. More detailed information on the health effects of fine particles can be found on EPA's website at: http://www.epa.gov/ttn/naaqs/standards/pm/s_pm_index.html.

Both SO₂ and NO_x emissions contribute to fine particle concentrations. In addition, NO_x emissions contribute to ozone problems, described in the next section. The PM_{2.5} ambient air quality monitoring for the 2001-2003 period shows that areas violating the standards are located across much of the eastern half of the United States and in parts of California, and Montana. The population of the 225 counties which are designated as nonattainment for the annual PM_{2.5} standard totals almost 95 million people.

In 1997, EPA also promulgated revised and identical primary and secondary standards for ozone that are more protective of public health and the environment and more stringent than

the previous 1-hour ozone standards. Short-term (1- to 3-hour) and prolonged (6- to 8-hour) exposures to ambient ozone have been linked to a number of adverse health effects. Short-term exposure to ozone can irritate the respiratory system, causing coughing, throat irritation, and chest pain. Ozone can reduce lung function and make it more difficult to breathe deeply. Breathing may become more rapid and shallow than normal, thereby limiting a person's normal activity. Ozone also can aggravate asthma, leading to more asthma attacks that require a doctor's attention and the use of additional medication. Increased hospital admissions and emergency room visits for respiratory problems have been associated with elevated ambient ozone exposures. Longer-term ozone exposure can inflame and damage the lining of the lungs, which may lead to permanent changes in lung tissue and irreversible reductions in lung function. People who are particularly susceptible to the effects of ozone include children, people with respiratory diseases, such as asthma, and people with unusual sensitivity to ozone. Those who spend extended periods of time outdoors are likely to have higher ozone exposure than those who spend more time indoors. More detailed information on health effects of ozone can be found at the following EPA website:
http://www.epa.gov/ttn/naaqs/standards/ozone/s_o3_index.html

In addition to causing adverse health effects, ozone affects vegetation and ecosystems, leading to reductions in agricultural crop and commercial forest yields; reduced growth and survivability of tree seedlings; and increased plant susceptibility to disease, pests, and other environmental stresses (e.g., harsh weather). In long-lived species, these effects may become evident only after several years or even decades and have the potential for long-term adverse impacts on forest ecosystems. Ozone damage to the foliage of trees and other plants can also decrease the aesthetic value of ornamental species used in residential landscaping, as well as the natural beauty of our national parks and recreation areas. The economic value of some welfare losses due to ozone can be calculated, such as crop yield loss from both reduced seed production (e.g., soybean) and visible injury to some leaf crops (e.g., lettuce, spinach, tobacco), as well as visible injury to ornamental plants (i.e., grass, flowers, shrubs). Other types of welfare loss may not be quantifiable (e.g., reduced aesthetic value of trees growing in heavily visited national parks).

Almost all areas of the country have experienced some progress in lowering ozone concentrations over the last 20 years. However, ozone remains a significant public health concern. Presently, wide geographic areas, including most of the nation's major population centers, experience ozone levels that violate the NAAQS for 8-hour ozone. These areas include much of the eastern part of the United States and large areas of California. More specifically, 474 counties with a total population of over 159 million people are currently designated as nonattainment for the 8-hour ozone standard. When ozone and PM_{2.5} are examined jointly, 190 counties nationwide are in nonattainment for both PM_{2.5} and ozone standards with a total population of around 94 million people. Of these, most are in the eastern United States.

In 1999, EPA promulgated the Regional Haze program, which is designed to protect against major environmental effects caused by PM and ozone, such as visibility impairment. Reductions in NO_x and SO₂ will contribute to substantial visibility improvements in many parts

of the eastern U.S. where people live, work, and recreate, including nationally important areas such as the Great Smoky Mountains. Reductions in these pollutants will also reduce acidification and eutrophication (nutrient pollution) of water bodies in the region. In addition, reducing emissions of NO_x and SO₂ from electric generating units can be expected to reduce emissions of mercury. Reduced mercury emissions in turn may reduce mercury loadings in lakes and thereby potentially decrease both human and wildlife exposure to fish containing mercury.

2.2 Description of the Rules Under Consideration

2.2.1 Federal Implementation Plan Rule for the Clean Air Interstate Rule

On May 12, 2005 EPA, as authorized by section 301 of the Clean Air Act, published the CAIR in the Federal Register to ensure compliance with the requirements of section 110(a)(2)(D) of the CAA, relating to interstate transport of air pollution. CAIR requires significant emissions reductions of SO₂ and/or NO_x in twenty-eight states and the District of Columbia. NO_x and SO₂ are precursors to PM_{2.5} pollution; NO_x is also a precursor to ozone pollution. Twenty-three states and the District of Columbia are required to reduce emissions of SO₂ and NO_x because EPA has found that they contribute significantly to PM_{2.5} nonattainment problems in downwind states. Twenty-five states and the District of Columbia are required to reduce emissions of NO_x because EPA has found that they contribute significantly to seasonal ozone nonattainment problems in downwind states. Based on an assessment of the emissions contributing to interstate transport of air pollution and available control measures, EPA has determined that achieving the required reductions in the identified states by controlling emissions from power plants above 25 MW is highly cost effective. When fully implemented, CAIR will require SO₂ emissions in the region to be reduced by approximately 73% from 2003 levels, and will require NO_x emissions in the region to be reduced from 2003 levels by approximately 61%.

In a final rule signed the same day as CAIR and published on April 25, 2005, EPA found that states have failed to submit SIPs to satisfy the interstate transport requirements under section 110(a)(2)(D)(i) of the CAA for the PM_{2.5} and 8-hour ozone NAAQS. (70 FR 21147). These findings give EPA the authority to issue a FIP at any time to correct the deficiencies and require that the Administrator issue a FIP for each state, within two years of making such findings, unless a SIP revision correcting the deficiency is approved by EPA before a FIP is promulgated. CAIR gives States eighteen months to submit revised State Implementation Plans (SIPs) to meet these requirements. It permits states to use either of two compliance options to achieve the required emission reductions: 1) meet the state's emission budget by requiring power plants to participate in an EPA-administered interstate cap and trade system that caps emissions in two stages, or 2) meet an individual state emissions budget through measures of the state's choosing. EPA anticipates that states will achieve required reductions primarily by the first option.

EPA plans to propose a FIP to provide a federal mechanism that could be used to implement the requirements of CAIR. This is one of the rulemakings for which this panel has been convened. Information on the CAIR rule can be found online at the CAIR website

<http://www.epa.gov/cair.>)

2.2.2 Response to North Carolina's Petition Pursuant to Section 126 of the Clean Air Act

In March 2004, North Carolina submitted a petition to EPA pursuant to Section 126 of the Clean Air Act contending that emissions from certain facilities in upwind states contribute significantly to nonattainment in and interfere with maintenance by the state of North Carolina with the PM_{2.5} and eight-hour ozone standards. The petition requests that EPA find that emissions of NO_x and SO₂ from large electric generating units (EGUs) in 12 states are significantly contributing to nonattainment with and interfering with maintenance of the PM_{2.5} standard and that NO_x emissions from EGUs in five states are significantly contributing to 8-hour ozone nonattainment and interfering with maintenance of the standard. If EPA makes such findings, EPA would be authorized to establish Federal emissions limits for the affected sources. EPA has entered into a consent decree with the state of North Carolina, agreeing to respond to the petition through notice-and-comment rulemaking, and to issue proposed findings and any necessary control remedies by August 1, 2005. EPA must take final action by March 15, 2006.

2.2.3 States That Could be Affected by The Rules

Table 1. States Potentially Affected by the Planned Proposed Rules, and Estimated Number of Affected Small Entities by State

State	CAIR FIP	S. 126	Included for PM 2.5	Included for Ozone
Alabama	0	0	X	X
Connecticut	0	NA		X
Delaware	0	NA		X
District of Columbia	0	NA	X	X
Florida	9	NA	X	X
Georgia	1	1	X	
Illinois	4	4	X	X
Indiana	2	2	X	X
Iowa	18	NA	X	X
Kentucky	1	1	X	X

Louisiana	4	NA	X	X
Maryland	0	0	X	X
Massachusetts	0	NA		X
Michigan	4	4	X	X
Minnesota	3	NA	X	
Mississippi	1	NA	X	X
Missouri	2	NA	X	X
New York	0	NA	X	X
New Jersey	0	NA		X
North Carolina	0	NA	X	X
Ohio	2	2	X	X
Pennsylvania	0	0	X	X
South Carolina	1	1	X	X
Tennessee	0	0	X	X
Texas	5	NA	X	
Virginia	0	0	X	X
West Virginia	0	0	X	X
Wisconsin	2	NA	X	X

2.3 Related Federal Rules

There are four other Federal rules that may cover the same types of sources and pollutants. As the CAIR was developed, great care was taken that its programs not conflict with other Clean Air Act programs. The same care will be taken with the CAIR FIP and Section 126 response. Below are brief descriptions of the rules that may cover the same types of sources:

- Clean Air Interstate Rule (CAIR): previously described.
- Regional Haze Rule: The Regional Haze Rule was promulgated in 1999 and requires states to establish emission reduction strategies in their SIPs, addressing any kind of source, to improve visibility in all 156 Class I national parks and wilderness areas.

- Acid Rain: The title IV Acid Rain Program was part of the 1990 Clean Air Act Amendments. The program covers EGUs and consists of a cap-and-trade program for SO₂ and facility specific NO_x emissions standards.
- NO_x SIP call: The NO_x SIP call was promulgated in 1998 to reduce significant transport of NO_x in the east and covers EGUs and other major stationary sources; this program allowed states to participate in a region wide cap-and-trade program for NO_x.

3. OVERVIEW OF PROPOSALS UNDER CONSIDERATION

3.1 Potential Requirements and Guidelines

As EPA begins to develop the FIP, it intends to use the CAIR model trading rules as a starting point. EPA also plans to base a component of its Section 126 Response on these model rules. Thus, the CAIR model trading programs are explained in some detail below.

The CAIR model trading programs, if implemented by the affected states, would cap SO₂ and NO_x emissions from large EGUs and would ensure that the necessary reductions in pollution transport are achieved while providing the flexibility and cost effectiveness of market-based systems. The development of these model cap-and-trade programs incorporated the experience gained through EPA's experience in successfully implementing national and regional cap-and-trade programs (i.e., title IV Acid Rain Program and the NO_x SIP Call).

General program requirements of the CAIR model rules:

3.1.1 Applicability

The CAIR model cap-and-trade programs would apply to fossil fuel-fired EGUs serving, at any time since start-up, an electrical generator with a nameplate capacity exceeding 25MW and producing power for sale, as well as cogeneration units serving at any time a generator with a nameplate capacity exceeding 25 MW and supplying more than 1/3 of potential electric output capacity in any calendar year to the grid.

3.1.2 Allowance Management System, Compliance, Penalties, and Banking

The integrity of the allowance management system (which includes provisions for accurate and efficient accounting, compliance, penalties, and banking mechanisms) is very important to the functioning of a cap and trade program. The CAIR model trading rules would use allowance tracking provisions reasonably consistent with the allowance tracking systems that are currently in use for the Acid Rain Program under title IV and the NO_x Budget Trading Program under the NO_x SIP Call. These two systems are called the Allowance Tracking System (ATS) and the NO_x Allowance Tracking System (NATS), respectively. Compliance, penalty, and banking provisions in the cap and trade program would be consistent with those provisions

in the CAIR model trading rules.

3.1.3 Emissions Monitoring and Reporting

The CAIR model trading rules, if implemented by affected states, would require sources to monitor their emissions using Part 75 of the Acid Rain regulations (40 CFR part 75). Generally Part 75 requires the use of continuous emissions monitoring systems (CEMS), but it does have other options for certain oil and gas fired units. Additionally, in order to account for all emissions at all times, provisions for estimating emissions during times when monitors are unavailable because of planned and unplanned outages would also be necessary. Part 75 sets forth monitoring and reporting requirements for both SO₂ and NO_x mass emissions and includes the additional provisions necessary for a cap and trade program. Part 75 is used in both the Acid Rain and NO_x SIP Call programs.

3.1.4 Annual SO₂ Trading Program

The CAIR SO₂ model rule would allow the use of title IV allowances directly for compliance with the trading rule. Specifically, sources affected by the model CAIR trading rules would comply with the rule by using more than one title IV allowance for every ton emitted using the retirement ratios established in the final CAIR model rules. Because title IV allocates virtually all of the Acid Rain Program allowances directly to individual sources, EPA would not develop a methodology under a FIP to allocate allowances to individual units. In other words, the allocation methodology prescribed by title IV would continue independently of any SIP or any FIP, implementing the model CAIR trading rules.

3.1.5 Annual and Seasonal NO_x Trading Programs

The NO_x cap-and-trade program in the CAIR model trading rules is substantially similar in its basic requirements and procedures to the proposed SO₂ program discussed above. Under the CAIR NO_x model trading rules, however, EPA would allocate new CAIR NO_x annual and seasonal allowances to states, who would then allocate these allowances to sources. The sum of these allowance allocations in any year would be equal to the cap for that year. In the CAIR FIP, EPA would develop a methodology for allocating annual and seasonal NO_x allowances directly to sources.

3.2 Small Entity Flexibility Options

3.2.1 Presumed exemption

EPA intends to propose exempting EGUs that generate less than or equal to 25 MW from the requirements of both the CAIR FIP and the Section 126 Response. This approach is consistent with the reduction requirements of the CAIR cap and trade approach, which requires emission reductions from EGUs that exceed 25 MW. We will take this exemption protecting small entities into account when developing plans to ensure compliance with the emissions

reduction requirements. Use of any other regulatory alternatives would require EPA to make additional adjustments to ensure that the overall emissions cap is met. That is, if small entity compliance flexibility results in greater total emissions from those entities, then emissions reductions of the same quantity will need to be obtained from other sources.

3.2.2 Additional Small Entity Flexibilities Under Consideration

3.2.2.1. Option 1 - An alternative compliance method for units with low emissions

Under this option, units that emit below a specified amount (e.g. 25 tons, the cutoff used in the NO_x SIP Call) could opt to take an enforceable mass emission limitation in lieu of complying with the requirements of the trading program. This enforceable mass emission limitation requires the source to surrender some operational flexibility in order to meet this limitation. For NO_x, EPA could ensure that the cap was met by retiring allowances equivalent to the permit limitation (and that number of allowances would be subtracted from the number of allowances available to other sources). This approach was suggested as part of the NO_x SIP Call SBREFA process and was incorporated into the final NO_x SIP Call Rule. There has been limited use of this approach in the NO_x SIP Call. One reason it has only been used in a few cases is because of the tension between small sources that wish to have as high a permit limit as possible to maintain operational flexibility (and that may also have a general resistance to surrendering operational flexibility) and states that wish to retire as few allowances as possible under this mechanism so they have more allowances to distribute to sources in the trading program. For a more complete description of how this option was applied in the NO_x SIP Call, see 63 FR 57463 and 57518. These pages discuss the requirements associated with using this exemption.

In EPA's spreadsheet analysis that was made available to SERs, EPA analyzed three variations of this option for both SO₂ and NO_x. These were cutoffs of 25 tons, 50 tons, and 75 tons for NO_x, and 50 tons, 100 tons, and 200 tons for SO₂. A total of 62 units are projected to qualify for some form of this exemption in 2010, and 61 are projected to qualify in 2015. However, the majority of these units are projected to be net sellers of allowances, and so only a few of these units would be projected to take advantage of this option. Given this, EPA would not expect a significant change in emissions reductions from small entities under this option.

Pros:

- This approach would reduce the impacts on small sources that fall below an emissions level specified by EPA. Entities with emissions below this limit could avoid the cost of controls or allowance purchases. For the purposes of EPA analysis, compliance costs for units that qualified for this exemption were adjusted to reflect the fact that the units would no longer be purchasing (or selling) allowances.

Cons:

- A mechanism to ensure that the SO₂ cap was met would have to be developed. This approach is easier to implement for NO_x. For SO₂, the fact that allowances are already allocated under the Acid Rain program would make implementation more difficult. In order to ensure that the cap was met, other (larger) units would have to turn in SO₂ allowances at a greater ratio. Even with careful consideration of the appropriate ratios, utilization shifting could introduce uncertainty as to whether the SO₂ cap would be met. For NO_x, allowances available for units not using this exemption would be decreased to maintain the caps.
- This approach would not reduce costs for larger emitting small entities that did not meet the applicability threshold. Some of these entities are projected to experience significant impacts under CAIR.
- A number of those potentially relieved by this option are projected to be net sellers of allowances. EPA projects that only a handful of small entities would experience a savings from these options as EPA have analyzed them in either 2010 or 2015.
- Small entities selecting this option would have to report annually to EPA that they are complying with their permit requirement. Also, this requirement would place an additional administrative burden on EPA because it creates a separate compliance requirement for some sources.
- EPA observed that this approach was not attractive to most eligible sources under the NO_x SIP call.

3.2.2.2. Option 2 - To buy allowances from EPA at a fixed price

Sources owned by small entities could be provided more certainty by giving them the option of buying allowances from EPA for a fixed price. This fixed allowance price could be set either lower, or higher, than the projected allowance price. Setting it lower would result in more small entities using this provision (including small entities that were not significantly impacted). Setting it higher would not reduce the projected cost, but it would give small entities certainty about the maximum cost of compliance and would limit the vulnerability of small entities to the market volatility that has historically been common at the beginning of cap and trade programs. EPA's projected allowance prices under CAIR are:

	2010	2015
SO ₂	\$700	\$1000
NO _x	\$1300	\$1600

In discussing this approach, EPA has considered the ramifications of making allowances available to small entities at either a below market price or an above market price. These two choices represent two distinct policy goals. Choosing a below market price would suggest that the cap-and-trade approach would not provide sufficient flexibility and cost reductions to small entity sources relative to a command and control approach, and would attempt to address that concern. This thinking is counter to the objective of equating marginal costs among sources that is inherent in a cap-and-trade program. Use of a below projected price would also present more complicated implementation issues. Assuming EPA's projected allowance prices are accurate, all eligible small entity sources purchasing allowances would attempt to purchase allowances at the below market price, possibly creating a demand in excess of the number of allowances that EPA would have to set-aside ahead of time. Finally, making allowances available at a below-market price could possibly deter the installation of control technologies at small entity sources where installation of controls would otherwise be economical under the trading program.

Choosing an allowance price above the allowance price projected by EPA would provide certainty to small entity sources in the event of unanticipated market volatility, particularly early in the trading program. For example, the safety valve price might be set at 20 % above the projected allowance price. While this option would not reduce the projected cost to small entities, it would place an upper limit on the marginal cost faced by these sources, and would allow for more certainty in these sources' financial planning.

Implementation of this option would have to be done in a way that maintains the integrity of the CAIR FIP caps, which represent the reduction requirements under CAIR. For NO_x, it is possible that allowances could be purchased from a set-aside of allowances available for purchase to small entity units at the safety valve price. Units would purchase allowances at the safety valve price, and the proceeds from this purchase would be deposited to the U.S. Treasury. For SO₂, implementation of this option would be more complicated. Because the proposed SO₂ trading program under the CAIR FIP would, like CAIR, make use of existing title IV allowances, EPA would have to increase the SO₂ allowance retirement ratio of larger sources in order to create a set-aside. It is not certain that implementation of Option 2 through adjustment of SO₂ retirement ratios would be feasible. Since it is not certain how many entities might take advantage of this option, it could be difficult to appropriately adjust the SO₂ retirement ratio for entities not affected by this option.

An alternative to implementing an allowance set-aside for small entity sources to purchase at the safety valve price would be to allow small entity sources to pay some price to borrow their own future year allowances. This price would have to be set sufficiently high to prevent this option from being a default compliance option. Further, in order to retain the environmental benefits that the annual caps are intended to generate, and to guarantee that sources would not deplete their future year budgets, EPA would have to limit the number of allowances that could be borrowed from a source's future year budget. If Option 2 were to be implemented in this manner, it would be permitting the use of future year allowances for current year compliance, and reducing the size of the future year allocation accordingly. It should be noted that absent the implementation of Option 2 in this manner, the CAIR FIP would not allow

"borrowing" from the future to meet current compliance requirements.

While implementation of Option 2 in this manner for NO_x would be administratively complex, it would be even more complicated for SO₂, because attainment of the cap is tied to the allowance retirement ratio, which changes between phase I and phase II of the program. First, only sources with title IV allowances would have future accounts from which to borrow. Second, title IV does not allow for the use of future year allowances for current Acid Rain compliance in this manner.

Pros:

- This approach would provide certainty by providing a maximum price that affected units would have to pay.
- This approach would provide the most benefit for sources who are projected to have the highest cost (i.e. those that would comply by buying allowances).

Cons:

- A mechanism to ensure that the SO₂ cap is met would have to be developed. This approach is easier to implement for NO_x. For SO₂, the fact that allowances are already allocated under the Acid Rain program would make implementation more difficult. The need to implement through either a set-aside or borrowing further complicates implementation.
- Allowances could be purchased from future budgets for NO_x, and if they could for SO₂, it would be only among sources that are allocated allowances under title IV.
- Requires that price be set correctly to achieve policy goal.

3.2.2.3. Option 3 - Provide sources owned by small entities with a greater share of allowances

This option would attempt to relieve some of the overall cost burden on small entities by reducing the number of allowances that they would need to purchase in order to comply with the CAIR FIP. Due to the differences in unit allocations for NO_x and SO₂, implementation of these options is complicated and would be different under the two programs.

Under the CAIR, EPA provided an example NO_x allocation methodology for the allocation of NO_x allowances to units in the program. This methodology allocated allowances based on a unit's share of heat input, adjusted by fuel adjustment factors (1.0 for coal, 0.6 for oil and 0.4 for natural gas). The purpose of these fuel adjustment factors was to allocate relatively more NO_x allowances to sources where the reduction requirements would be relatively greater because of the fuel burned. One possible means of providing relief to small entities would be to

increase these fuel-adjustment factors for units owned by small entities. The factors would have to be decreased among larger units so that the total amount of allowances allocated would remain unchanged and the NO_x cap would be met.

EPA analyzed the potential impacts of this option in a spreadsheet that was included in the SERs outreach package. The spreadsheet looked at variations of this option that increased small entity unit NO_x allocations by 10, 15, and 20%. Generally, while this option provided relief to small entities overall, it did not significantly reduce the largest small entity impacts from a cost/revenue perspective.

This option, while ensuring that the NO_x cap would be met, would allocate additional allowances to small entities regardless of need, and thus may not be the most effective means of addressing small entities. For example, 81 small entity units are projected to increase revenues in 2010 under CAIR, and while they would not require relief, they would be allocated additional allowances under this option. Conversely, as noted above, our analysis of this option did not suggest that it would transfer allowances to small entities with large projected impacts from a cost/revenue perspective in a way that would make these impacts substantially less severe. For example, the projected 2015 impact on the Dairyland Power Coop (Plant ID: 4140 ; Unit ID: B4) would improve from a cost impact of 23.2% of revenue to 22.7% of revenue under the variation of Option 3 that would provide the most additional allowances (25% more NO_x allowances).

It is possible that EPA could implement this option through a screening process that would require small entity sources that would anticipate financial hardship under the rule to provide information that demonstrates this hardship to EPA. This could include consideration of factors such as allowance allocations and expected compliance strategy and costs. This alternative could create a significant additional administrative burden for both sources and EPA.

Pros:

- This approach would ensure that NO_x caps are met.
- This approach would reduce costs for small entities. Implementing this option with a required demonstration of hardship could provide targeted relief to small entities expected to experience more significant impacts.
- If screening for hardship is not considered, the administrative burden of this approach is low relative to other options.

Cons:

- In order to allocate more NO_x allowances to smaller units, the allocation to other (larger) units would need to be decreased to maintain the same caps.
- This option would provide extra allowances regardless of need, i.e., it may not be the

most effective means of addressing significant impacts. In EPA's spreadsheet analysis of this option, increasing NO_x allocations according to the adjustments considered by EPA, while reducing costs to small entities overall, did not achieve substantial reductions in the cost/revenue ratio at the units where this ratio was highest.

- This option, if not targeted to units projected to experience financial hardship, would provide additional savings to units that are already projected to experience a cost savings under CAIR.

For SO₂, the model trading program in the final CAIR uses the existing title IV allowance allocations. Greater reductions are achieved by requiring sources to turn in allowances at a ratio of greater than 1 allowance for each ton of emissions (2 vintage 2010-2014 allowances for each ton of emissions and 2.86 vintage 2015 and beyond allowances for every ton of emissions). Therefore, there is no mechanism to distribute additional allowances to small entity sources. However, it is possible that EPA could provide relief to units owned by smaller entities by requiring them to retire SO₂ allowances at a ratio that is lower than those finalized under CAIR. Implementing this option would reduce certainty that the SO₂ cap would be met. In order to ensure that the cap was met, other (larger) units would have to turn in SO₂ allowances at a greater ratio. Even with careful consideration of the appropriate ratios, utilization shifting could introduce uncertainty as to whether the SO₂ cap would be met.

EPA also simulated the potential effect of this option in the SERs' spreadsheet. The spreadsheet looked at variations of this option that reduced the required SO₂ allowance retirement ratio to 1.9:1, 1.8 :1 and 1.7:1 in 2010 (as opposed to 2:1 under CAIR), and 2.75:1, 2.5:1, and 2.25:1 in 2015 (as opposed to 2.86:1 under CAIR). In the spreadsheet, the implementation of this option is indicated by an increase in the number of SO₂ allowances available to the small entity units for compliance purposes, but not for sale. In practice, small entity units affected by this option would not receive additional SO₂ allowances, but would have to surrender fewer of them to cover their emissions. Generally, while this option would provide relief to small entities overall, it would not significantly reduce the largest small entity impacts from a cost/revenue perspective. However, EPA examined only a limited range of alternative retirement ratios, consistent with its evaluation of this option using NO_x allowances.

This option would make the small entity compliance requirement for SO₂ less stringent than it would be under the final CAIR. However, as presented above it would do so regardless of small entity need, and thus may not be the most effective means of addressing small entity impacts. It is possible that EPA could implement this option through a screening process that would require small entity sources that would anticipate financial hardship under the rule to provide information that demonstrates this hardship to EPA. This alternative would likely create a significant additional administrative burden for both sources and EPA.

Pros:

- This approach would reduce costs for small entities. Implementing this option with a

required demonstration of hardship could provided targeted relief to small entities expected to experience more significant impacts.

Cons:

- This option would be difficult to implement.
- In order to ensure that the cap is met, other (larger) units would have to turn in SO₂ allowances at a greater ratio. Even with careful consideration of the appropriate ratios, utilization shifting could introduce uncertainty as to whether the SO₂ cap would be met.
- This option would reduce the compliance requirement regardless of need, i.e., it may not be the most effective means of addressing significant impacts. In EPA's spreadsheet analysis of this option, the SO₂ retirement ratio adjustments considered by EPA, while reducing costs to small entities overall, did not achieve substantial reductions in the cost/revenue ratio at the units where this ratio was highest.
- This option, if not targeted to units projected to experience financial hardship, would provide additional savings to units that are already projected to experience a cost savings under CAIR.

3.2.2.4. Option 4 - Utilize the existing flexibilities within the trading rule

The trading rules in CAIR were developed to provide all sources with flexibility while still ensuring that the emissions caps were met. In general, cap-and-trade programs provide cost savings and flexibility relative to command and control regulation, because they do not mandate a specific approach to emission control. Ultimately, one of the objectives of a cap-and-trade program is to reduce costs relative to a command-and-control policy by equating marginal emission reduction costs across sources, through the ability of sources to buy and sell emission allowances. Units that have higher cost control options can buy allowances from units that have lower cost compliance options. (It should be noted that EPA projects that some units owned by small entities will be net sellers of allowances). The market incentives provided by this approach can lead to newer, more cost-effective means of reducing emissions, as has been observed under the Acid Rain Program and NOx Budget Trading Program.

The CAIR trading rules provide sources with a number of additional flexibilities that would further increase cost-savings from the trading program relative to a command-and-control approach that required equivalent reduction levels. First, the program also gives sources the ability to "bank" unused current allowances to use for compliance in future years. Banking provides sources with additional flexibility by allowing them the opportunity to minimize their compliance costs over the length of the program. Second, CAIR provides a compliance supplement pool of 200,000 allowances during the first year of the NOx trading program that could be used to help alleviate the compliance burden on small entities facing hardship. Finally, the monitoring provisions also include a number of non-CEM monitoring options for gas and

oil-fired units.

Pros:

- The approach does not require additional mechanisms that could complicate implementation and compliance. This approach is consistent with the final CAIR.
- This approach contains a number of flexibilities that apply to all sources.

Cons:

- This approach does not provide additional flexibility beyond the flexibilities that all sources covered by the CAIR trading program will have, and thus does not provide specific relief to small entities, including a few that EPA projections indicate may experience significant hardships, as quantified in terms of the ratio of projected costs to projected electricity generation revenue.

4. APPLICABLE SMALL ENTITY DEFINITIONS

Any final rulemaking for the CAIR FIP or EPA's Response to North Carolina's Section 126 Petition could affect fossil-fuel-fired electric utility steam generating units (EGUs). Units potentially affected by a Response to the North Carolina Petition would be a subset of units potentially affected by a CAIR FIP. For the purposes of assessing the impacts of these rules on small entities, a small entity is defined as:

- A small business according to the Small Business Administration (SBA) size standards as codified at 13 CFR 121.201. The SBA defines small businesses by category of business using the North American Industry Classification System (NAICS). For EGUs (NAICS code 221112), the SBA has defined a small business as a firm, including its affiliates, that is primarily engaged in the generation, transmission, and/or distribution of electric energy for sale and its total electric output for the preceding fiscal year did not exceed 4 million megawatt-hours.
- A small government jurisdiction that is a government of a city, county, town, district, or special district with a population of less than 50,000.
- A small organization that is any not for profit enterprise that is independently owned and operated and is not dominant in its field.

EPA intends to propose exempting small entities with a nameplate capacity less than 25 MW. EPA intends the proposed rules to apply only to units that generate electricity for sale.

5. SMALL ENTITIES THAT COULD BE SUBJECT TO THE REGULATIONS UNDER CONSIDERATION

Preliminary estimates show that there are approximately 3,000 electricity generating units (owned by industry, federal government, state/local/tribal government, or non-governmental organizations) in the states subject to emissions reduction requirements under CAIR. Approximately 140 of these EGUs are owned by the 58 potentially affected small entities identified in EPA's analysis. Of the 140, 49 units are owned by small entities that also share ownership with large entities. Of these units, 34 are believed to be more than 50% owned by a large entity. An additional 189 units owned by small entities in these states could be exempted because they have a nameplate capacity less than 25 MW. The above estimates include a number of units that are owned jointly by small and non-small entities, and how these entities will be addressed by these rules is under consideration. In addition, these estimates represent the maximum number of units potentially affected by the CAIR FIP. Only units in states that fail to submit an approved SIP would be directly regulated under the CAIR FIP. The actual number of affected units will depend on the number of states that do not submit a SIP or do not get their SIP submittal approved.

In EPA's analysis of the impacts of the CAIR rule on small entity sources, EPA has estimated a NO_x emissions budget of 130,000 tons in 2010 and 108,000 tons in 2015 for the 140 small entity units. This represents approximately 9% of the total NO_x EGU budget under CAIR. However, these allocations reflect the example allocation approach provided in the model trading rule under CAIR, and actual allocations under either CAIR or the CAIR FIP/Section 126 Response could vary.

Based on title IV allocations to the small entity sources considered in EPA's analysis, these units would have approximately 712,000 title IV allowances available for 2010 and beyond. These allowances would be worth approximately 356,000 tons of SO₂ annually during the first phase of CAIR (2010-2014) and 249,000 tons of SO₂ annually for 2015 and beyond, or about 10% of the CAIR SO₂ cap.

6. SUMMARY OF SMALL ENTITY OUTREACH

6.1 EPA's Small Entity Stakeholder Outreach

Prior to convening the panel, EPA had several discussions and a conference call with small entities that could be affected by these rules. In March, in consultation with the Chief Counsel for Advocacy of the Small Business Administration, EPA had discussions with numerous municipal utilities and electric cooperatives to identify potential Small Entity Representatives (SERs). EPA invited 15 small utilities and cooperatives and one electric generation trade association to serve as potential SERs. On March 21, 2005, EPA mailed a package of background materials about the rulemakings to the potential SERs, and supplemented that package on March 28 with additional technical information, such as costs for various

options.

6.2 EPA's Conference Call with Potential Small Entity Representatives

EPA, in consultation with the Chief Counsel for Advocacy of the Small Business Administration, invited potential Small Entity Representatives (SERs) to participate in a conference call on the planned CAIR FIP and Section 126 proposed rules and the SBREFA process. On April 4, EPA held a conference call with the potential SERs and invited representatives from the Office of Advocacy of the Small Business Administration and the Office of Information and Regulatory Affairs within the Office of Management and Budget to the call. EPA presented an overview of the SBREFA process, an explanation of the planned CAIR FIP and Section 126 rulemakings, and technical background on such information as control options and costs.

6.3 Panel's Outreach Meeting with Small Entity Representatives

On May 5, 2005, the Panel invited the SERs to an outreach meeting and provided the SERs with additional background information for their consideration. These materials included the previously provided background on the potential rules and pollutants of interest, as well as relevant states and further technical and economic information about affected entities. The outreach meeting occurred on May 24, 2005, followed by written comments from some of the SERs. A summary of SER comments is in Section 8 of this report. A list of all materials shared with the SERs is contained in Appendix A of this report. All of the SER's written comments received by the Panel are contained in Appendix B of this document.

7. SMALL ENTITY REPRESENTATIVES

The following lists the SERs invited to advise the SBAR panel on the planned CAIR FIP and Section 126 proposals.

American Municipal Power of Ohio, Inc. Randy Meyer Columbus, OH	Corn Belt Power Cooperative Michael Thatcher Humboldt, IA	Henderson Municipal Power and Light Wayne Thompson Henderson, KY
Austin Utilities Patrick Lunn Austin, MN	Geneseo Municipal Electric Utility Tim Long Geneseo, IL	Kissimmee Utility Authority Kenneth Davis Kissimmee, FL
Central Iowa Power Cooperative Greg Gerdes and Rex Butler Cedar Rapids, IA	Harlan Utilities Tom Gaffigan Harlan, IA	Orrville Electric Utility Jeff Brediger Orrville, OH

Reedy Creek Improvement District Robert Kindle Lake Buena Vista, FL	San Miguel Electric Cooperative, Inc. Joe Eutizi Jourdanton, TX	Waverley Light and Power Glenn Cannon Waverly, IA
Richmond Power and Light David Osburn Richmond, IN	Southern Illinois Power Cooperative Leonard Hopkins Marion IL	
Ruston, City of Dan Hollingsworth Ruston, LA	Tipton Electric Utility John Packwood Tipton, IA	

8. SUMMARY OF COMMENTS FROM SMALL ENTITY REPRESENTATIVES

8.1 Number and Types of Entities Affected

A number of SERs noted that there are a number of economic disadvantages faced by small EGUs relative to large EGUs. These SERs noted that small EGUs do not have the ability to spread their cost of compliance over many units within the company. The SERs argue that smaller EGUs will therefore bear a larger economic burden relative to large EGUs.

A few SERs suggested that the integrated planning model (IPM) is not a good predictor of costs or compliance decisions for small entities, because of its reliance on average costs. These SERs note that small entities incur a greater cost for the installation of emissions controls relative to large entities. Further, while IPM may predict that a small entity will shut down a plant, the plant may in fact have to remain open for non-economic reasons such as reliability, emergencies, system stability, etc. The SERs further argue that because of the high costs of emissions controls, small entities will likely run these plants less and buy more electricity from other sources, at higher prices. The SERs also note that any plant shutdowns will cause job losses.

A few SERs noted that small entity EGUs also have to deal with premium charges by installers of control technologies, competition from large EGUs for scarce engineering resources and relatively higher costs of retrofitting due to the economy of size at larger plants. Further, in the case of cooperatives, obtaining financing from the Department of Agriculture Rural Utility Service Guaranteed Loan Program can delay the cooperative's completion of control technology installation.

A few SERs suggested that the most significant cost advantage to a large electric generating company with many units is the ability to spread control costs over many units. These companies can install controls at units where it is cost-effective, and then shift allowances around to cover emissions at all units. Additionally, some SERs representing cooperatives,

indicated that their customers would experience a greater impact on rates under these rules than customers of larger utility companies, particularly because these cooperatives might need to purchase electricity from the grid to meet customer demand.

One cooperative that has minority ownership interests in three large joint-owned plants and one small plant that it owns entirely suggested that as a minority owner, they will not be in a position to dictate control decisions. Additionally, the one plant that the cooperative does own has only one small unit, and thus will not be likely to install controls. This SER suggested that the coop would be subject to allowance market exposure, but with less ability to mitigate risk than larger electric generating companies. Another SER indicated that the small municipality he represented is a minority owner in a plant that would be installing scrubbers and a baghouse over the next few years in order to avoid purchasing allowances. The SER commented that its city and others are currently paying for this investment and that these costs will be passed on to customers.

One SER said that many gas turbines that are peaking units are relatively low-emitters, are already covered by the NO_x Budget Trading Program, and mostly operate during the ozone season, and that therefore there is little to be gained by regulating them further.

A number of SERs expressed the importance of the exemption for units serving a generator less than or equal to 25 MW.

Finally, throughout the panel process, a number of SERs alerted EPA to data errors pertaining to unit identification, specifications, and ownership. Data corrections were made to EPA analysis for any descriptive unit data for which EPA received comments.

8.2 Potential Reporting, Record Keeping, and Compliance Requirements

One SER provided comments during the panel process that noted that the numerous existing emission reduction and reporting requirements are particularly burdensome for small entities. The SER noted that for small entities, efforts for mitigation under different requirements are usually the same, but that they have the burden of additional reporting. The commenter expressed concern that small entities will spend more on reporting than on complying. The commenter suggested that it would also be helpful to have existing and future emissions reductions programs and efforts qualify for all, rather than some, Clean Air Act requirements.

8.3 Related Federal Rules

One commenter noted that their unit is currently disadvantaged by an SO₂ allowance allocation under title IV that no longer represents the actual operation of the unit.

8.4 Regulatory Flexibility Alternatives

Option 1 was viewed as a promising alternative for two SERs with low-emitting units. One SER suggested an exemption limit on the order of 100 tons of NO_x annually, with additional qualifications based on fuel use and output. Another SER said that the SO₂ limit could be set at about 25 tons to exempt small gas turbines burning piped natural gas (PNG). Because these units emit more NO_x, and also must increase generation under extreme circumstances, the NO_x limit should be set at a higher level, such as 100 tons, or compliance should be determined using a five-year rolling average.

Some SERs indicated that Option 1 would not help their units at all, since they would not qualify for a low-emitter exemption and will either be purchasing allowances or installing controls. One SER suggested that this option should not be evaluated any further.

A few SERs indicated that Option 2 could be helpful to small entities to the extent that it provides a way to evaluate how much to spend on controls vs. allowances. One SER, while indicating that the option is of limited value, suggested that if it were to be pursued further, that the safety valve price should be not more than 10% greater than the projected allowance price if coming from a set-aside, and if coming from a unit's own future allowances, the safety valve price should be 10% of the projected allowance price. Additionally, the SER recommended that all small entities be eligible to purchase allowances in this manner.

A number of SERs provided support for Option 3. Generally, these SERs commented that Option 3 would provide the greatest degree of economic relief to small entities. Most of these SERs suggested that EPA use the maximum values for NO_x allowance adjustment or SO₂ retirement ratio adjusted that were provided in EPA analysis. One SER suggested that for minority owners to benefit from this option, allowances should be allocated to small entity owners of joint-owned units. Another SER noted that Option 3 would help small entities at least partially recover investments in control technology and reduce the financial burden on their customers. One SER suggested that this option be provided to small entities with no proof of hardship required. Another SER commented that this option would help small entities deal with the increased risk associated with a small fleet and limited access to the grid, and help offset some of the costs of CAIR to these entities.

Two commenters suggested regulatory flexibility alternatives that had not been discussed by the panel. One was to leave small entities out of CAIR altogether, and pursue additional reductions from larger entities. The second was to extend CAIR implementation dates for small entities by two years for both phases of CAIR.

9. PANEL FINDINGS AND RECOMMENDATIONS

9.1 Number and Types of Entities Affected

The Panel appreciates that different types of small entity sources may face different challenges in achieving compliance. One of the benefits of a cap and trade program for small

entity sources is that rather than install controls, a source can choose to purchase allowances from other sources for less than it would cost to install controls.

Several SERs commented on the affect of CAIR on the electricity prices paid by ratepayers, as a result of their sources having to purchase electricity. However, these commenters did not provide any supporting data or analysis. Given that wholesale electricity markets are expected to become increasingly competitive, the Panel would not anticipate that, in general, customers of the cooperatives represented by these SERs would face unusually high rates relative to other customers in the same region. Under CAIR, EPA projected retail electricity prices in CAIR region would increase an average of about 2% relative to the Base Case.

The Panel does not recommend exempting small gas turbines from the program, as was suggested by one SER. The Panel believes that the reduced monitoring requirements for this set of sources under CAIR will provide a significant level of relief to these sources, which are low emitters of both NO_x and SO₂. According to EPA analysis, most of these sources are projected to be net sellers of allowances, and the maximum impact projected for any one of these sources in terms of the ratio of costs to electricity generation revenues is approximately 3%. Additionally, CAIR does exempt a number of small gas turbines as a result of the 25 MW and below exemption.

The Panel supports retaining in the CAIR FIP/126 rulemakings the 25 MW and below exemption that was included in the CAIR rule. In the final CAIR, EPA stated its belief that it is reasonable to assume no further control of air emissions from these smaller EGUs. Available air emissions data indicate that the collective emissions from small EGUs with capacity less than or equal to 25 MW are relatively small and that further regulating their emissions would be burdensome, to both the regulated community and regulators, given the relatively large number of units.

9.2 Potential Reporting, Record Keeping, and Compliance Requirements

One SER noted that EPA should coordinate emissions monitoring reporting among this and other related rules as much as possible. EPA has developed emission monitoring and reporting provisions intended to do just that. Sources will submit one quarterly report that will account for emissions under any of the following programs that they are subject to: Title IV SO₂ and/or NO_x, CAIR FIP SO₂, annual NO_x and/or ozone season NO_x. Finally, as part of the FIP development process, EPA plans to coordinate the FIP and SIP requirements as much as possible to minimize any conflicts in requirements that could occur if a State submitted a SIP that was approved by EPA and replaced the FIP trading rule.

9.3 Related Federal Rules

EPA's decision to use the existing SO₂ allocation from the Acid Rain Program is explained in greater detail in the preamble to the final CAIR (70 FR 25299).

9.4 Regulatory Flexibility Alternatives

The Panel has undertaken detailed review of the regulatory flexibility alternatives described in this document, and the comments and discussion provided by the SERs during the Panel process. Consensus was not reached as to the final recommendation of the Panel. Two Panel members recommended that EPA pursue Option 4 as the means of providing flexibility to small entities under the CAIR FIP/126. In general, this recommendation was made based on the ability of the existing CAIR rule to provide a number of flexibilities to small entity sources, as well as consideration of the possible trade-offs in terms of administrative ease and the ability to effectively target sources that would need relief. One Panel member recommended Option 3 as the means of providing additional flexibility to small entities that can demonstrate significant hardship as a result of these rulemakings.

Regarding Option 1, the panel generally agreed that this Option would not provide a mechanism for providing relief to many small entity sources. Additionally, EPA noted that in addition to the implementation concerns with this option, it was made available under the NOx SIP call, and was used very sparsely, due to the operational flexibility a source must sacrifice in order to meet the permit requirements. Further, states were reluctant to implement this option due to a desire to retire as few allowances as possible under this mechanism so that they would have more allowances to distribute to sources in the trading program. The majority of SERs did not express support for this option. The Panel did not recommend that EPA incorporate this option in the CAIR FIP/126 rules.

As was discussed in Section 3, Option 2 could be implemented using either a safety valve price for small entity sources that falls below the projected allowance prices, or above projected allowance prices. One Panel member suggested that if safety valve allowances were made available to small entity sources at a below market price, economics would dictate that all small entity sources would attempt to purchase safety valve allowances, and could limit the extent to which this Option provides targeted or substantial relief to small entities. Generally, Option 2 with a price set higher than predicted allowance prices was seen not as a provision for relief but rather as a way to provide certainty. Given the implementation issues discussed in Section 3, and the uncertainty about what type of relief this option might provide, the Panel did not recommend that EPA incorporate this option in the CAIR FIP/126 rules.

As noted at the beginning of this section, one Panel member recommended Option 3 with a demonstration of hardship as the Option that EPA should pursue further in developing the CAIR FIP/126 rules. The SERs were also most supportive of Option 3 to provide the necessary relief, though generally without indicating a preference for implementation either with or without a demonstration of hardship. One SER recommended that there be no hardship requirement. The views of the one Panel member regarding Option 3 with hardship demonstration are set forth below.

EPA estimates that there will be five small entity units that will face severe hardship in 2015 (in which EPA expects a higher burden than 2010). The Agency projects that these

entities will experience costs in excess of 5% of sales, ranging between 6% and 43%.¹ Given that the allocations needed to reduce these hardships to zero cost (worst case estimate - EPA is expected only to reduce the costs to a reasonable burden) require only an allocation in the NOx budget of approximately 2-7% of a given state's budget in 2015, to this Panel member, it does not appear difficult to set aside approximately 15,000 tons of NOx each year for these hardships. EPA would have to implement this process by establishing a set-aside of NOx allowances from the relevant state's budget. If this were not feasible, EPA would still retain the option of not providing the full relief.

Further, for reasons stated above, EPA the size of the NOx allowance set aside could be less than 15,000 tons. However, because any small entity could apply for these allowances, it is possible that the demand for these allowances could be greater than anticipated. EPA would not be expected to provide relief to a unit whose ratepayers face new additional costs, but benefit from below-market electricity rates that are underwritten by other government subsidies. Moreover, the complexity of addressing SO₂ is removed because those facilities that receive NOx allocations, but require SO₂ allocations, could sell the NOx allocations, and purchase SO₂ allocations with those funds.

This Panel member believes that the administrative burden on the facilities and EPA could be limited if EPA (1) set a specific hardship criterion in the rule (such as expected costs/revenue), (2) required the facility to report the needed allocations and the costs of potential retrofits (using engineering studies) and (3) relied solely on the NOx market for allocations. This Panel member believes that the investment in the administrative process is warranted by the projected severe negative impact on a relatively small number of facilities. While the Panel is legitimately concerned about burden on EPA and the potentially high demand for these NOx allocations in a given state, this Panel member suggests that it is better to retain the flexibility to provide additional relief in the rule, and then determine whether it is feasible to grant relief, rather than discover later that relief could have been given, but the agency did not allow itself sufficient flexibility to do so. Modifying Option 3 to targeting units with hardships is the most efficient way to provide relief to those who require relief relative to the other regulatory flexibility alternatives considered.

All Panel members agree that for the great majority of affected small entities, the current CAIR cap and trade approach, or Option 4, provides the appropriate mechanism for limiting economic burdens, by allowing the purchase and sale of allowances in the market by all units. In the view of one Panel member, the Option 3 hardship approach best accommodates the needs of small entities with severe hardships and the burden of administering this added program element, while preserving the identical benefits of the CAIR program.

Two Panel members recommend Option 4 as the preferred regulatory flexibility alternative. These Panel members believe that numerous provisions in the CAIR trading

¹ This analysis excludes 11 units that are projected to shut down under CAIR.

programs provide flexibilities that will lower compliance costs for all sources, relative to a command and control approach. The trading program allows sources for which it is prohibitively expensive to install controls to purchase allowances from another source at a cost that is less than what it would cost to install controls. Banking provides additional flexibility by allowing sources the opportunity to minimize compliance costs over the length of the program. Further, CAIR provides a compliance supplement pool of allowances during the first year of the NOx trading program that could be used to help alleviate the compliance burden on small entities facing hardship.

These two Panel members did not recommend implementation of Option 3 for several reasons. First, implementation of Option 3 as discussed could require that up to 7% of a given State NOx allowance budget be set aside for one (or a small number of) sources. In a State with limited NOx allowances and a large number of sources, this Option could have significant impacts on other sources in the State by limiting their NOx allocations relative to what they would have been. Second, EPA would not be able to guarantee that any relief provided to small entities would actually be transferred to ratepayers. This is due to variability among entities in how costs or savings are distributed throughout the entity and its consumers, which results from factors such as variations in regulatory structure, entity ownership structure, and the nature of regional wholesale electricity markets. Finally, these two Panel members expect that, while Option 3 could provide targeted relief, implementing this option would pose a number of administrative challenges. The most significant of these would be the development of a process that would occur far enough ahead of the actual compliance year to provide affected sources with certainty as they undertake compliance planning, and still allow sources to provide EPA with meaningful information. EPA would need time to review applications and make determinations, as well as determine allocation of allowances, far enough in advance to provide sufficient certainty for sources, and also provide enough time for EPA to update source allowance accounts.

These two Panel members emphasized a number of additional points in the context of this recommendation for Option 4. First, both Panel members recognize that installation of control technology may be relatively more expensive at smaller units. However, EPA analysis indicates that not all of the small entity-owned sources are small units. Of the 140 potentially affected small entity-owned units, 31 are coal-fired units less than 100 MW and 38 are coal-fired units greater than 300 MW in size. Second, the CAIR monitoring provisions also include a number of non-CEM monitoring options for gas and oil-fired units, which make up about 40% of the units owned by small entities that could be affected by these rules. Third, the CAIR model trading rule is less complex than previous trading programs and does not include provisions such as progressive flow control that were more burdensome for small sources. Progressive flow control was included in the NOx SIP call and requires that there be discounted compliance value to banked NOx allowances if the region-wide surplus of banked allowances exceeds 10% of that year's total allocation. This provision is believed to disproportionately limit flexibility to small entities. Finally, by phasing in the emission reduction requirements under CAIR, EPA has provided more time for small entities to obtain necessary financing for emission controls.

Appendix A

List of materials SBAR Panel Shared With SERs During Panel Outreach

1. Outreach Document for Small Entity Representatives Clean Air Interstate Rule Federal Implementation Plan (CAIR FIP) and Section 126 Regulations (May 5, 2005)
2. Small Entity Analysis Excel Spreadsheet (May 5, 2005)
3. Small Entity Analysis Excel Spreadsheet Description (May 5, 2005)
4. Updated Small Entity Analysis Excel Spreadsheet (May 31, 2005)

Appendix B

Written Comments the SBAR Panel Received from SERs

**** See Separate File ****