UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

STATE OF NORTH CAROLINA, *et al.*, Petitioners, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, Respondent.	)	No. 05-1244 and consolidated cases

DECLARATION OF BRIAN J. MCLEAN

I, Brian J. McLean, under penalty of perjury, affirm and declare that the following statements are true and correct to the best of my knowledge and belief and are based on my own personal knowledge or on information contained in the records of the United States Environmental Protection Agency (EPA) or supplied to me by EPA employees under my supervision.

1. I am the Director of the Office of Atmospheric Programs (OAP) within the Office of Air and Radiation (OAR) at EPA. OAP includes the Clean Air Markets Division (CAMD) which develops and manages cap-and-trade programs to control emissions and assists States and other countries with the development of such programs.

2. In my capacity as Director of OAP, I oversee EPA's implementation of major portions of the Clean Air Act (CAA or Act) including Titles IV and VI. In coordination with other OAR offices, I also oversee the promulgation of significant regulations pursuant to the CAA, such as the NOx SIP Call and the Clean Air Interstate Rule (CAIR). In addition, I serve as a national expert and global consultant on emissions trading programs. I have been the director of OAP

since 2002.

3. Prior to becoming Director of OAP, I directed CAMD (formerly the Acid Rain Division). I have been employed by EPA in various positions since 1972. I hold a Bachelor's degree in Electrical Engineering from Lafayette College, a Master's degree in City and Regional Planning from Rutgers University, and a Doctorate in City Planning from the University of Pennsylvania.

4. My office, in coordination with other OAR offices, developed the CAIR rule. My office is also responsible for implementation of the CAIR trading programs and CAIR Federal Implementation Plans. I am familiar with the CAIR emission reduction requirements including the cap levels and timing, the CAIR sulfur dioxide (SO_2) and nitrogen oxides (NOx) trading programs, the status of CAIR implementation, and the July 11, 2008 decision of the Court of Appeals for the D. C. Circuit in North Carolina v. EPA (No. 05-1244).

5. I was also involved in the development of the NOx SIP Call, which established the summer season NOx Budget Trading Program to assist multiple eastern states (20 plus the District of Columbia) in reducing regional transport of NOx emissions that contribute to ozone nonattainment. During my 36 year tenure at EPA, I have also worked on or supervised numerous other significant rulemakings.

6. This declaration is filed in support of EPA's Petition for Rehearing or Rehearing en Banc in the case of North Carolina, v. EPA.

Consequences of CAIR Vacatur

7. Data provided to EPA by power companies establishes that in the two calendar years following the promulgation of CAIR – 2006 and 2007 – coal-fired units with a total capacity of 21 gigawatts of power (8% of the total coal-fired capacity in the CAIR SO_2 region) have installed

advanced SO_2 controls (i.e., flue gas desulfurization). In the same time, coal-fired units with a total capacity of over 7 gigawatts of power (3% of the total coal-fired capacity in the CAIR NOx region) have installed advanced NOx controls (i.e., selective catalytic reduction).

8. Data provided to EPA by power companies establishes that before the decision in North Carolina v. EPA, coal-fired units with a total capacity of 71 gigawatts of power (27% of the total coal-fired capacity in the CAIR SO_2 region) had planned to install, between 2008 and 2012, advanced SO_2 controls (i.e., flue gas desulfurization). For the same time, coal-fired units with a total capacity of 24 gigawatts of power (9% of the total in the CAIR NOx region) had planned to install advanced NOx controls (i.e., selective catalytic reduction).

9. The majority of these controls were installed or planned to be installed to comply with the requirements of CAIR. Thus, vacatur of CAIR would remove the primary incentive for power companies to install and operate emission controls in many parts of the CAIR region. Other factors including judicial settlements and state regulations have influenced some of the control decisions, these other factors would not require the controls to be installed and operated until sometime after 2010. Furthermore, CAIR incentivizes significant reductions through other strategies such as fuel switching which are typically not incentivized by other forcing functions for emission reductions. Vacatur would certainly cause the installation of fewer controls, cancellation of planned control installations, reduced or foregone operation of some previously installed controls and less use of other reduction strategies such as fuel switching. It would thus significantly reduce both emission reductions and the associated health benefits.

10. Reductions from historical levels have been dramatic since CAIR passed in 2005. In 2005, SO2 emissions in the CAIR States were 9,350,000 tons. In 2007, they had been reduced to 8,170,000 tons, a reduction of nearly 1.2 million tons. These reductions have brought emission

levels below those required by Title IV. In 2006, SO_2 emissions were approximately 144,000 tons below the Title IV cap. In 2007, national SO_2 emissions were approximately 594,000 tons below the Title IV cap. With a vacatur, this downward trend would not just slow down, but until new regulatory actions could be put in place, SO2 emissions would actually rise.

11. Before the oral argument in North Carolina v. EPA the price of Title IV SO2 allowances was approximately $600. After the oral arguments the prices began a gradual decrease to about $300. Shortly after the July 11, 2008 decision in North Carolina v. EPA was released, the price of Title IV SO_2 allowances decreased sharply to below $100/ton. The price subsequently stabilized at roughly $150/ton, an overall 75% reduction. This decrease in allowance price reduced the value of banked SO_2 allowances held by firms by over $3 billion.[1]

12. EPA estimates that approximately $3.8 billion worth of SO_2 controls and nearly $1 billion of NOx controls were installed in CAIR states in 2006 and 2007. EPA further estimates that over $14 billion in SO_2 controls and $3 billion in NOx controls were committed for installation between 2008 and 2012 prior to the Panel decision. The value of controls which currently remain scheduled for completion remains unclear as power companies review their plans in light of the July 11, 2008 decision.

13. Companies that made early reductions and banked their unused SO_2 allowances were most negatively impacted by the decrease in allowance price.

14. For units with flue gas desulfurization (devices that can remove more than 95% of the SO_2 from a power plant's emissions), the cost of operating the device is generally between $100 and $200 per ton of SO_2 removed. When allowance prices fall below these levels, the economic incentive to operate these control devices is eliminated.

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1 SO_2 allowance price data is from Evolution Markets (http://new.evomarkets.com/).

15. The price of a 2009 CAIR annual NOx allowance decreased from more than $5,000 before the Panel's decision to under $1000 currently, an 80% reduction and a decrease in value of over $6 billion for 2009 allowances alone.[2] These allowances have been actively trading for over a year, so this devaluation has had significant impact on sources that have made allowance trades.

16. If EPA is required to conduct a new rulemaking to reinstate the emission reductions required by CAIR, it would likely take 5-7 years for actual emission reductions to occur. This estimate is based on my experience developing rules regulating emissions from the power sector and takes into account the time required for EPA's rulemaking process, for State SIP development and submission processes, for implementation of program requirements, and for installation of controls.

Relationship between CAIR and the NOx SIP Call

17. The CAIR rulemaking revised the NOx SIP Call to discontinue the NOx Budget Trading Program after the 2008 ozone season and in preparation for that transition many States developed regulations to eliminate their NOx Budget Trading Program requirements. As of today, September 20, 2008, twelve States (more than half of the NOx SIP Call States) had finalized such regulations. Although EPA is committed to working with these States, there is no guarantee that these States will be able to reinstate their NOx Budget Trading Program requirements in time for the 2009 ozone season. This program has had dramatic results. Ozone season NO_x emission from affected sources fell 60% between 2000 and 2006 and ozone levels were reduced by 5% to 8%. This significantly contributed to the fact that 80% of the 104 areas designated as non-attainment for ozone by EPA in 2004 were seeing air quality better than the

2 NOx allowance price data is from Evolution Markets (http://new.evomarkets.com/).

NAAQS by the 2006 ozone season. If States cannot reinstate their rules many of these benefits will also be lost. Furthermore, CAIR would have achieved further ozone season reductions, giving areas that had not reached attainment under the NOx SIP Call additional assistance reaching attainment.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 20th day of September, 2008.

BRIAN J. MCLEAN
Director, Office of Atmospheric Programs
U.S. Environmental Protection Agency

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STATE OF NORTH CAROLINA, *et al.*, Petitioners, v. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, Respondent.	)	No. 05-1244 and consolidated cases

DECLARATION OF WILLIAM T. HARNETT

I, William T. Harnett, under penalty of perjury, affirm and declare that the following statements are true and correct to the best of my knowledge and belief, and are based on my own personal knowledge or on information contained in the records of the United States Environmental Protection Agency (EPA) or supplied to me by EPA employees under my supervision.

1. I am the Director of the Air Quality Policy Division (AQPD) of the Office of Air Quality Planning and Standards (OAQPS) within the Office of Air and Radiation at EPA, a position I have held since March 2006. OAQPS is the EPA office that has the primary responsibility for developing regulations that implement several important Clean Air Act (CAA) programs including the criteria pollutant program for the national ambient air quality standards (NAAQS) and AQPD is the division within OAQPS which has responsibility for developing regulations for implementing the NAAQS.

2. In my current capacity as Director of AQPD, I am responsible for overseeing EPA's promulgation of significant regulations related to implementation of the NAAQS as well as management of EPA's air pollution permitting programs. My division, in coordination with other EPA offices, developed the Clean Air Interstate Rule (CAIR). In this capacity, I am familiar with the requirements of CAIR and the July 11, 2008 decision in North Carolina. v. EPA (No. 05-1244). My division is also responsible for issuing guidance and regulations for states to address regional haze.

3. Prior to joining AQPD, I directed the Information Transfer and Program Integration Division within OAQPS. Prior to that assignment, I served as the Associate Director for the Air Quality Strategies and Standards Division within OAQPS. I have a Bachelor's degree from Benedictine University.

4. This declaration is filed in support of EPA's petition for rehearing or rehearing en banc in North Carolina v. EPA. Its purpose is to explain how vacatur of CAIR would significantly disrupt the efforts of states throughout the eastern United States to meet the 1997 NAAQS for ozone and fine particles (PM2.5) and the regional haze program requirements. In addition, it provides information demonstrating that the majority of the significant health benefits from CAIR are associated with the sulfur dioxide (SO2) reductions.

Consequences of CAIR Vacatur on States' Air Quality Plans

5. States are required by the CAA to develop state implementation plans ("SIPs") to provide for implementation, attainment, maintenance and enforcement of the NAAQS within the state. These SIPs must also include adequate provisions to prohibit emissions that significantly contribute to nonattainment in, or interfere with maintenance by, any other state with respect to any NAAQS. SIP revisions providing for attainment of the 1997 PM2.5 NAAQS were due by

April 2008 and SIP revisions providing for attainment of the 1997 ozone NAAQS were due by June 2007. States that fail to meet these deadlines, or that submit SIPs that EPA must disapprove because they fail to demonstrate attainment, may be subject to sanctions including increased emissions offset ratios and the loss of highway funds.

6. Vacatur of CAIR will significantly disrupt the efforts of states throughout the eastern United States to meet the NAAQS for ozone and PM2.5. Because of the substantial emission reductions that CAIR would provide, states in the CAIR region were intending to rely on CAIR as an integral or primary component of their ozone and PM2.5 attainment strategies.

7. In the CAIR region, 54 areas are required to submit SIPs demonstrating how they will achieve attainment of the 1997 PM2.5 standard. Of the 7 PM2.5 attainment SIPs submitted to EPA to date, all 7 relied on the CAIR reductions. Based on a survey of the EPA Regional Offices for CAIR states, EPA expects that states were intending to rely on CAIR reductions in all 47 of the remaining PM2.5 attainment SIPs.

8. In states that are covered by CAIR or affected by CAIR, 31 areas are required to submit attainment SIPs for the 1997 ozone standard.[1] Of the 22 ozone SIPs submitted to EPA to date, all 22 relied on the CAIR reductions. Based on a survey of the EPA Regional Offices for these states, EPA expects that states were intending to rely on CAIR reductions in all 9 of the remaining ozone attainment SIPs.

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[1] This number only includes those currently covered under subpart 2 (of title 1, part D of the CAA). Although a number of nonattainment areas under the 0.08 ppm 8-hour ozone standard were originally covered under subpart 1 and were also required to submit an attainment demonstration, the DC Circuit Court of Appeals vacated EPA rules that placed areas under subpart 1. EPA is currently in the process of proposing rulemaking that will address the implementation requirements for those former subpart 1 areas; some of these areas will likely also have to submit attainment demonstrations under EPA's anticipated rulemaking.

9. In the absence of CAIR, states would likely need to revise the attainment demonstration components of the SIPs to show how they will achieve the necessary emissions reductions. It would take time for states to reassess their air quality plans, conduct new modeling if necessary, make new emissions control decisions, take public comment, and complete the rulemaking process to adopt revised SIPs.

10. The time consumed in the SIP revision process would result in a delay in emissions reductions which could delay attainment and the accompanying health benefits. States could also be vulnerable to new source review emissions offset sanctions and highway funding sanctions for failing to have approved SIPs in place by the required deadlines.

11. A vacatur of CAIR would have impacts beyond the NAAQS programs. It would also significantly disrupt States' efforts to comply with EPA's Regional Haze Rule. States are in the process of completing their Regional Haze SIPs and are required to demonstrate reasonable progress toward the goal of achieving natural background visibility in all Federal Class I areas (National Parks and wilderness areas). Long term strategies to achieve emission reductions and demonstrate reasonable progress to improve visibility includes best available retrofit control technology (BART) on certain older power plants.

12. The majority of the CAIR states were planning to rely on CAIR reductions in either setting reasonable progress goals or satisfying the BART requirements (27 for setting reasonable progress goals and 20 to meet BART). Nine states have completed their regional haze SIPs and all rely on CAIR. Also, states without Class I areas are required to plan emission reductions in cases where they have impacts in states with Class I areas. Those states also rely on CAIR to achieve the required reductions. CAIR provides the bulk of the emission reductions necessary to improve visibility in the eastern Class I areas in the first phase of the SIPs. Without CAIR, states

will have to substantially revise their Regional Haze SIPs which will significantly delay the submission to EPA and further delay the planned emission reductions to reduce haze in the Class I areas.

SO2 Reductions Account for Vast Majority of Health Benefits From CAIR

13. As part of EPA's assessment of CAIR and the 2005 suite of legislative proposals to reduce multipollutant emissions from EGUs, EPA estimated the relative share of benefits associated with SO2 and NOx emissions reductions. In addition, EPA estimated the average benefits expected from reducing a ton of SO2 emissions relative to a ton of NOx emissions. The analysis showed that a ton of SO2 emissions reduced from EGUs has over seven times the benefit of a ton of NOx emissions reduced from EGUs in terms of reducing PM2.5 concentrations. This fact, combined with the smaller amount of NOx emission reductions relative to SO2 emissions required by CAIR means that NOx emissions reductions contributed only about 5 percent of the total PM benefits resulting from CAIR. SO2 emissions reductions accounted for the vast majority of overall benefits. NOx emissions reductions expected to result from CAIR during the summer season do provide additional benefits due to reductions in ozone concentrations.

I declare under penalty of perjury that the foregoing is true and correct.

Executed this 19th day of September, 2008.

William T. Harnett

William T. Harnett
Director
Air Quality Policy Division
Office of Air Quality Planning
and Standards
United States Environmental Protection Agency