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**STATEMENT OF BRADLEY M. CAMPBELL
ON BEHALF OF THE
OZONE TRANSPORT COMMISSION
SUBMITTED TO
THE U.S. SENATE ENVIRONMENT AND PUBLIC WORKS COMMITTEE
SUBCOMMITTEE ON CLEAN AIR, CLIMATE CHANGE AND NUCLEAR SAFETY
REGARDING MULTI-POLLUTANT LEGISLATION S.131**

January 26, 2005

Thank you for the opportunity to provide this written statement on multi-pollutant legislation under consideration today by the Subcommittee. This issue is of critical importance to the Ozone Transport Commission (OTC) because interstate transport of pollutants from the Electrical Generating Unit (EGU) sector significantly contributes to our member states' non-attainment problems, a contribution that can be cost-effectively reduced. I hope that the extensive work we've performed to assess multi-pollutant options in light of the need to address transport, along with our successful experience developing and implementing "cap and trade" emission reduction programs, proves useful to you as you consider this matter.

The OTC was created by Congress under the Clean Air Act Amendments of 1990 to coordinate ground-level ozone reduction strategies in the Northeast and Mid-Atlantic region of the U.S and to advise on air transport issues. OTC represents 12 states and the District of Columbia – roughly one-quarter of the population of the U.S. We are well-versed in cap and trade programs and have successfully implemented them throughout our region.

The Problem

Currently, one-hundred-fifty-nine (159) counties or partial counties are in non-attainment for the 8-hour ozone standard, and sixty-three (63) counties in non-attainment for particulate matter (PM_{fine}) within the ozone transport region (OTR). In 2010, our attainment deadline for most of the OTR, we will have approximately 106 counties not meeting the 8-hour ozone standard, 47 of which are beyond marginal non-attainment. A similar result is expected for PM_{fine}. OTC is working actively on a variety of control strategies related to ozone and attainment of the 8-hour ozone standard. For the past thirteen years, OTC has coordinated the efforts of our states to reduce the pollutant precursors to ground-level ozone, sought reductions from upwind areas contributing to unhealthy air quality in our region, and advised EPA and lawmakers on constructive improvements to our air quality programs. Through a cap and trade program, OTC states succeeded in reducing our own NOx emissions by approximately 70 percent, while the rest of the country had reduced its emissions by only about 10 percent from 1990 baseline. The NOx SIP call will further reduce emissions for non-OTC eastern states to 30 percent, but far below where the states need to be for attainment purposes and to meet the health standards for their citizenry. In OTC's effort to reach attainment, no fruitful area of potential emission reductions is being overlooked, because the challenge is so great. From smoke stacks, to cars, to fuels, to consumer products and paints – if we are not pre-empted from making improvements in these areas, we are looking to do so. We are also not asking anyone to do anything we have not done or are not committing to do ourselves.

It is in this context we provide this statement to express the critical role the Electrical Generating Unit (EGU) Sector must play in the attainment plans of our states. This sector can and must make significant, cost effective reductions in the pollutants of concern.

There is no one single effort pending that is more critical to the success or failure of the OTC states to meet their legal and leadership responsibilities to ensure clean healthful air than the one you are dealing with today. The Clear Skies Act could be the most important advance to address interstate transport of pollutants to date, or it could, for the foreseeable future, lock us into a program that ensures we will fail to meet attainment of the health-based standards by the deadlines specified in the Clean Air Act. When the Clear Skies bill did not move forward last year, we appreciated EPA's efforts to advance the Interstate Air Quality Rule (IAQR, subsequently named the Clean Air Interstate Rule or CAIR) in its stead. While that regulation as proposed was not as strong as necessary to address attainment and transport issues, it was a step that would help us toward our goals, and we were anxiously awaiting the final regulation to determine whether our comments had been heeded.

Now that Congress is revisiting Clear Skies, I hope we can agree on the fundamental principle that any such effort should enhance and not restrict state's rights in air quality management, enable states to achieve the public health standards that have been promulgated, and enable them to do so on time. Constructive and meaningful Federal leadership is critically needed, and we are, quite frankly, out of time to act.

Unfortunately, the NO_x and SO₂ reductions and timeline proposed in S. 131 are not deep enough to enable states to reach attainment, nor are they soon enough to meet the required deadlines. The reductions also do not resolve regional transport concerns for these pollutants from this EGU sector, and so fail to provide the sector with the certainty it seeks.

As mentioned above, over 100 counties in the Ozone Transport Region (OTR) will be in non-attainment in 2010. The Clear Skies Act would improve this situation by only 3 counties. EPA's and OTC's modeling alike show that, even with draconian measures applied locally, large areas will still not meet the health standards for air quality.

Indeed, our modeling (Exhibit 2) shows that if you eliminate all emissions originating in the OTR, you would still have 146 of 147 monitors influenced by a significant increment (>25%) by upwind air contributions. Seven (7) monitors would continue to show a violation of the standard due exclusively to transported pollution. EPA's own modeling showed that for Ann Arundel, Maryland, for example, 91 percent of the ozone at this monitor in 2010 would be from interstate transport, and all, significantly, from states beyond the Ozone Transport Region member states. (Source: EPA, Technical Support Document, January 2004, Page 35 Table VI-4 and Page 44, Table VIII-1).

Multi-pollutant regulation that falls short of the reductions needed to address the transport of pollutants by the attainment dates specified in the Clean Air Act (CAA) would be a disservice to the sector being regulated – committing us all to future uncertainty and repeated re-visitation of the program objectives. Proven technology exists and is being used today that can cost-effectively control emissions from EGU's. The unnecessarily mild reduction targets in the present bill also continue the health and economic inequities that currently exist as a result of OTR states doing more, while others do less.

The OTC is also concerned about changes to the New Source Review provisions of the Clean Air Act. The EGU sector has many older facilities that can and should be cost-effectively brought up to present day performance standards. S. 131 proposes to replace the New Source Review

provisions of the Clean Air Act – notably the provisions on routine maintenance, repair and replacement, to permit older sources to operate indefinitely without having to upgrade that source’s pollution controls. A fundamental principle of the Clean Air Act was that older facilities should meet newer standards as they upgraded, to reduce overall emissions from these sources over time. We believe the original intent of the Clean Air Act to give a reasonable period of time to amortize investment in existing facilities has long-since been satisfied, and that the “reasonable time” to upgrade has long-since past. In addition to provisions of rule or law that require existing facilities to upgrade pollution controls when initiating a major modification, The OTC supports the additional requirement that existing sources conduct a Best Available Control Technology (BACT) analysis when a facility reaches forty (40) years of age, and that it be required to implement BACT or equivalent controls that time.

Finally, the changes proposed in S. 131 to Section 126 of the Clean Air Act offend principles of Federalism and reduce the effectiveness of one of the few tools states have to make advancements on interstate transport. OTC states have patiently awaited federal action on clean air, and have used section 126 petitions judiciously. We take the responsibility of this authority quite seriously, and use it as a last resort. Our member states have only used this section once for ozone – and that spawned the effective NOx SIP call. With the 8-hour ozone standard, other states beyond OTC may find it necessary to use this option to address specific sources significantly contributing to their non-attainment status.

In the absence of strong federal action in Clear Skies or through rulemaking such as the IAQR, the OTR will continue to incur millions of respiratory-related illness days each year, tens of thousands of additional hospital visits - 50,000 emergency room visits in the northeast alone - and all the costs and public health impacts associated with exposing over 27 million children, 2 million with Asthma, to unhealthy air quality due to ozone. Failure to meet the particulates standard on time means tens of thousands of additional premature deaths each year.

The Opportunity

The OTC Supports a multi-pollutant approach for the EGU sector as the most cost-effective means of facilitating emission reductions of ozone and its precursors. As mentioned, OTC states have in large measure achieved what we are asking you to accomplish with this Act. OTC has successfully implemented a cap and trade program that has served as the successful model for the proposals before you, and we support such programs for the non-hazardous pollutants such as

NO_x and SO₂. The Mid-Atlantic and Northeast states have spent the last year working to clearly define what we need, in terms of reductions of nitrogen oxides in a multiple pollutant context, and when we need it. We believe the adopted OTC position (Exhibit 1) represents a fiscally and technically sound effort to protect public health, in a cost effective manner and on a realistic, achievable, timetable. In addition to the caps, it addresses many of the other provisions of concern in the Clear Skies proposal, notably administrative changes to the authorities of the Clean Air Act that limit or preclude the sound exercise of states rights and authorities. We present this to this Subcommittee in hope that it will inform your debate, and that you will use our experience with Cap and Trade and proposal to improve the Act now under consideration.

Our Proposal

OTC formally adopted a Multi-Pollutant position on January 27, 2004 (Exhibit 1). This position added specific emission reduction targets and timeframes to our Resolution signed in September, 2003, calling for a multi-pollutant approach as the best mechanism for achieving the NO_x reductions needed in the OTR.

We suggest NO_x and SO_x emissions from power plants be capped at 1.87 million and 3.0 million tons respectively by 2008, and 1.28 million and 2.0 million tons by 2012. In addition, OTC believes initial mercury control levels should not exceed 15 tons, with an ultimate performance requirement that achieves a final mercury reduction to approximately 5 tons per year by 2015, a 90% reduction from current emissions. We support expanding this proposal to the industrial boiler sector, particularly for NO_x, and to run this program without sacrificing state's rights to regulate these sources.

While OTC is demonstrably supportive of market mechanisms to achieve emission reductions, we are opposed to the use of a regional cap and trade program to achieve mercury reductions. Mercury, a known neurotoxin, should not be traded between facilities - ultimately all plants should achieve mercury reductions. The caps proposed for Mercury also significantly underestimate the level of reductions we could expect if the NO_x and SO_x emissions were appropriately controlled, and so OTC continues to stress the need to adequately deal with the needed reductions of these pollutants in the first phases of the program. It is noteworthy that several OTC states are implementing mercury controls requiring as much as a 90% reduction as soon as 2010, utilizing cost-effective proven technologies that are already available.

The Northeast and Mid-Atlantic states recognize that greenhouse gas emissions have become a significant issue and believe these emissions are best addressed at the national level. Many of the states in our region have already implemented or plan to implement measures to reduce greenhouse gas emissions and have joined together to implement regional greenhouse gas reduction initiatives. In addition to NO_x and VOC emissions that contribute to ozone, our states also have roles with regional planning organizations to reduce regional haze and particulate emissions. Pollutants contributing to these problems are in large part a function of combustion for energy production. Accordingly, we recognize the importance of addressing efficiency as a significant element in reducing all these emissions. In considering multi-pollutant legislation, regulatory and operational efficiency are also critical to effective environmental programs. Addressing this would enable electricity generators and other affected sectors to have a higher level of certainty and predictability to optimize investment decisions regarding pollution controls and operating procedures. Therefore, The OTC encourages Congress to act on a national program or programs promoting efficiencies that address emissions such as carbon dioxide and other greenhouse gases in a cost-effective, coordinated, and streamlined manner.

What we are proposing is a multi-pollutant program that can help us achieve attainment of the health-based ozone standard as expeditiously as possible. While no amount of reductions from one sector alone will bring all areas in the OTR into attainment, the significant contributions from the EGU sector both within and upwind of the OTR must be recognized and dealt with sufficiently to allow states to shift their priorities to less cost-effective reductions in other sectors and areas that will nevertheless be necessary to ultimately achieve attainment.

I want to emphasize that we expect it will take a suite of measures, including national action through a strong Clear Skies bill or the equivalent, to bring the entire region into attainment. We do, therefore, need any multi-pollutant program seeking reductions from power plants to adequately address that sector and be a constructive part of an overall attainment strategy for the Northeast and Mid-Atlantic states. The transport problem is not limited to the amount of emissions that can be reduced with highly cost-effective controls, rather it is the amount of emissions that must be reduced to eliminate the contribution to downwind non-attainment of the health based standards as soon as practicable.

Technical and Economic Feasibility

OTC used the Integrated Planning Model (IPM) that EPA uses to demonstrate the feasibility and cost-effectiveness of its program. We ran the model first using EPA's assumptions as is, and later modified the assumptions to include a greater growth rate and higher price of natural gas, reflecting EIA's estimates for these parameters. Our caps for NO_x and SO₂ are achieved without a significant change in fuel sources through 2012, enhance the use of regional coal, and do not cause a significant change in retail electricity rates. The results of this work is summarized here, but presented in more detail as Exhibits 2 & 3.

Ozone Reductions

At the core of OTC's proposal is the principle that we must not relax the ozone standard or let the attainment dates of the Clean Air Act slip. OTC believes a cap of 1.28 million tons in 2012, representing an effective emission rate of approximately .11 lbs/MMBTU, is technically and economically achievable; providing plenty of margin between what is presently required and best achievable technology to successfully run a cap and trade program for this pollutant. While not achieving attainment in and of itself, if applied to both EGU and industrial boiler sectors and combined with significant further reductions in mobile and area sector emissions, these caps enable attainment in all but the most difficult counties.

SO₂ Reductions

Industry and regulators agree that controlling NO_x and SO₂ emissions at the same time makes the most sense in terms of capital investment, regulatory certainty, and technical practicality. We also have a special role in reducing SO₂ emissions to address the remaining acid rain problem in the Northeast and to meet new federal requirements to improve visibility in certain wilderness areas.

We know that we will need to reduce SO₂ emissions to address both of these significant environmental problems. Depending on the extent and treatment of banked allowances, practical emission reductions may be significantly delayed. We need to seek greater emission reductions sooner, because we need real reductions within Phase I of the proposal to meet our commitment to environmental obligations under the Clean Air Act.

Modification of the banked allowance value, flow control and/or expiration of the use of Title IV banked allowances will be necessary in order to use up the significant accumulated allowance bank and gain real additional reductions.

Mercury Benefit of Stronger SO₂ and NO_x Controls

Because it is necessary and desirable to achieve the mercury reductions associated with controlling NO_x and SO₂ emissions, we are proposing emission reduction targets that are driven by our ozone attainment strategy in a way that does not exacerbate local emissions of this toxic heavy metal.

Phase I (2008) mercury reductions are generally considered to be achievable through the application of SO₂, NO_x and particulate matter (PM) control, acknowledging additional reductions being required by several OTC state multi-pollutant programs.

Phase II (2012) mercury reductions are achievable through further application of SO₂, NO_x and PM controls needed to achieve the respective caps and standards and application of some additional mercury-specific control measures.

Phase III (2015) mercury reductions are to be set by a performance standard to be identified no later than 2012, and are generally expected to require additional mercury-specific control technology applications beyond those required or achieved in earlier years.

General Implementation, Costs and Benefits

A perceived limitation on labor availability has been cited as a major reason why the boiler modifications and metal fabrications cannot be achieved in the timeframes OTC suggests, but we disagree that EPA is appropriately considering the type and expertise of the labor needed for this work, as well as the actual phase in and mix of installations that would occur in light of banked allowances. We believe that EPA analysis for this proposal relies too heavily on EGU industry's underestimation on the availability of labor to install control equipment. In discussions with control equipment representatives and those who would install the equipment, we believe that given a certain timeframe – even if earlier – there would be sufficient capital and labor available to adequately control emissions to meet our proposed targets in the 2008 timeframe toward 2010

attainment dates. The Institute for Clean Air Companies (ICAC) completed an analysis showing they could implement the CAIR 2015 caps by 2010 without difficulty. I refer you to their web site for that report.

Overall, we expect the costs of OTC's program to be achievable for less than \$2,000 per ton each for the NO_x and SO₂ reductions through 2020, the total cost to be on the order of about \$7.6 Billion in 2010 and \$11.1 Billion in 2020, with a monetized benefit of about \$80 Billion and \$140 Billion in those years respectively. The cost for compliance will be fractions of a cent per KWh, and a reasonable percentage of the total system operating costs for EGU units (approximately 10%). Compared to the CSA, we expect the program to cost less than 4% more, for a 44-47% reduction from IAQR NO_x and SO₂ emissions.

Finally, there continues to be the debate about the choice between environmental standards and the economy. Development and Installation of pollution controls creates jobs, as the ICAC would attest to, and reduced health care costs that must otherwise be borne by the public at large. Costs of the OTC program are estimated to be fractions of a cent per kW-h. Many of the states that have yet to adequately control EGU sector emissions ironically still have the ability to recapture the minimal costs of these programs from ratepayers, whereas many of the OTC states that are or have already required these reductions cannot (Slide 32, Exhibit 2). It is hard to imagine a more favorable rate structure existing for the upwind states to finally accomplish cost-effective emission reductions from this sector.

The Committee has in the past referred to the EPA trends chart that we reproduce as slide 37 in Exhibit 2. The chart is often held up as an excellent example of what we have accomplished over the past 30 years, a 25% reduction in overall emissions and a 161% increase in the GDP. This is impressive, but there is no denying we have more work to do to achieve healthy air, and this chart can also serve as testament that there never was a sacrifice of the economy to gain the results we have to date. There is no reason to believe this trend would reverse itself if we were to seek the cost effective controls the OTC is promoting for this sector.

Conclusion

OTC is committed to seeing the transport issue addressed, and appreciate the role a strong federal multi-pollutant law can play in that effort. We must have meaningful reductions in NO_x and SO₂ in this EGU sector if they are to gain the certainty they seek, and we are to achieve the health

based standards the Clean Air Act requires. To a large extent, mercury reductions can follow from the more significant reductions proposed for NO_x and SO₂, but in the end, we believe all would be better served by a performance based standard for mercury.

The OTC proposal enables us to get where we need to be for NO_x and SO₂, cost-effectively and on schedule. We are pleased to provide attached to these comments our modeling and other technical information that supports our contention that the rest of the country, or at least the eastern region, can and should do what the OTC member states are doing.

Thank you again for the opportunity to submit these comments. As always, we stand ready to work with you and your staff in any way that will help advance the principles noted herein.