March 31, 2006

Mr. Christopher Recchia
Executive Director
Ozone Transport Commission
444 N. Capitol Street, NW, Suite 638
Washington, DC 20001

RE: Comments on the Ozone Transport Commission's "CAIR-Plus" Emission Reduction Proposal for Electrical Generating Units

Dear Mr. Recchia:

The Chesapeake Bay Foundation submits the following comments in support of the Ozone Transport Commission's (OTC) adoption of a "CAIR-Plus" model rule that is at least as strong as the Final OTC Multi-Pollutant Program Development Strategy\(^1\) and the recently proposed candidate control measure caps for electrical generating units (EGUs)\(^2\). These comments are supported by the American Lung Association of Virginia.

The Chesapeake Bay Foundation (CBF) is a non-profit environmental education and advocacy organization dedicated to the restoration and protection of the Chesapeake Bay. With over 140,000 members, CBF works to ensure that changes in policy, regulation, and legislation are protective of the quality of the Chesapeake Bay and its watershed.

We applaud the OTC for recognizing that the federal Clean Air Interstate Rule (CAIR) and Clean Air Mercury Rule (CAMR) fall short of what is needed to protect air and water quality in the Northeast and Mid-Atlantic regions. We commend and support your efforts to develop a model rule that goes beyond the federal requirements for controlling emissions of sulfur dioxide (SO2), nitrogen oxides (NOx) and mercury from EGUs and large industrial boilers. In addition, we urge you to limit trading of NOx and SO2 to within states, as has been proposed in Maryland's Clean Power Rule, or at a minimum, within the airshed. CAIR applies to 28 states, many of which are outside the NOx and SO2 airsheds of the Mid-Atlantic and Northeast states. In order to accrue the maximum benefits from these reductions, we should mandate that they occur locally, where they will have the most environmental and human health benefits.

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The CAIR would cap emissions of NOx and SO2 from EGUs at 1.3 million and 2.5 million tons by 2015. These reductions fall short in terms of the cap allocations and timeframe to achieve them. By the Environmental Protection Agency’s (EPA) own analysis, in 2010, many counties in the Chesapeake Bay region will still not be attaining National Ambient Air Quality Standards for ozone under CAIR. The OTC Multi-Pollutant position recommends that NOx and SO2 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. These additional reductions are an essential part of a broader plan to reduce air pollution in this region, thereby reducing the number of asthma attacks, respiratory illnesses and deaths that are attributed each year to poor air quality.

Implementation of CAIR Plus will also have benefits to the Chesapeake Bay and its tributaries. The EPA’s Chesapeake Bay Program Office determined that nitrogen loads to the Bay need to be reduced by approximately 50% in order to remove the Bay from EPA’s List of Impaired Waters and to restore the Bay to a healthy ecosystem. In 2000, the Governors of Virginia, Pennsylvania, Maryland, the Mayor of the District of Columbia and the Administrator of EPA signed the Chesapeake 2000 Agreement, committing to achieve the necessary nutrient and sediment reductions to restore the Chesapeake Bay and its tributaries by 2010. In order to achieve these goals, the Bay states must be aggressive in controlling nitrogen and phosphorus pollution from a variety of sources, including air. Approximately one quarter to one-third of the nitrogen loading to the Bay comes from atmospheric deposition, though recent studies have suggested that this proportion may be even higher. Power plants contribute approximately one third of that atmospheric loading of nitrogen pollution.

During the summer of 2005, the Chesapeake Bay suffered from one of the largest ever-recorded “dead zones” – an area of low or no dissolved oxygen (DO) in the water. This dead zone stretched approximately 150 miles from Baltimore to the York River, making nearly 40 percent of the Bay’s waters unsuitable for fish, crabs, oysters and other life in the Bay. These low DO levels are caused by excess nitrogen and phosphorus that fuel algae blooms that use up oxygen during the decomposition process. Aggressive reductions in air pollution are needed if we are to successfully remove the Chesapeake Bay, a national treasure, from the list of impaired waters.

The OTC’s Multi-Pollutant position also sets targets for mercury. Emissions would be capped at 15 tons in 2008, 10 tons in 2012 and approximately 5 tons in 2015. Targets for mercury will be achieved primarily via co-benefits, but by 2015 necessary mercury controls should be in place to reduce current emissions by approximately 90%. These caps and timeframes are more aggressive than the EPA’s CAMR. In addition, the OTC position does not propose trading to reach emission caps.

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4 http://www.chesapeakebay.net/air_pollution.htm
Mercury is a potent neurotoxin and accumulates through the food chain, posing higher risks to those at the apex of the chain. At high levels, mercury can cause tremors, convulsions, and an inability to walk, and even death. At other unsafe doses, damage to the senses and to the brain has been documented. Women of child-bearing age are the greatest concern; children of women exposed to mercury during pregnancy have exhibited a variety of abnormalities including the delayed onset of talking and walking, cerebral palsy, and reduced neurological functions. Human exposure is generally through the consumption of contaminated fish.

Mercury fish consumption advisories have been issued throughout the Bay watershed, including statewide advisories in Pennsylvania and Maryland, including one for rockfish in the Chesapeake Bay. Virginia does not currently have an advisory for rockfish; however, a recent survey found that approximately half of the rockfish had mercury tissue concentrations that exceeded the EPA water quality criterion of 300 ppb. Atmospheric deposition is thought to be the primary source of mercury to these waterbodies. Currently, advisories for mercury are increasing faster than for any other pollutant, representing 60% of all water bodies with fish advisories nationwide. Based upon these facts, it is clearly necessary to take aggressive steps to reduce the amount of mercury that enters the environment.

The CAMR proposes a cap and trade program for mercury under Section 111 of the Clean Air Act. This rule violates the Clean Air Act because, as a hazardous pollutant, mercury should be regulated under Section 112. The Chesapeake Bay Foundation has joined other environmental groups and several states in a judicial challenge to EPA’s authority to issue this rule. In addition, we are concerned that the cap and trade approach may have serious human health and environmental consequences for the Bay region.

Recent studies have indicated that local atmospheric sources of mercury can have local impacts. For example, reductions of atmospheric sources of mercury from within Florida has led to approximately 60% declines in mercury in Everglades fish and wildlife in less than 15 years. A new study, soon to be published, made headlines earlier this year with evidence that directly links mercury pollution to coal-fired power plants. The EPA-funded study suggests that approximately 70% of the mercury gathered from precipitation monitoring stations in Steubenville, Ohio originated from fossil fuel combustion sources within a 400 mile radius. The findings directly contradict the reasoning used by the EPA in March 2005 when it issued mercury regulations based on the assumption that only 8% of mercury deposition could be linked to U.S. power plants.

Similarly, results of atmospheric modeling efforts for the Chesapeake Bay watershed have suggested that a large portion of the mercury generated locally from power plants,

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5 Virginia Institute of Marine Science. 2003 Chesapeake Bay Special Study, Spring and Fall Trawls.
6 Florida Department of Environmental Protection. 2003. Integrating Mercury Deposition with Aquatic Cycling in South Florida: An approach for conducting a Total Maximum Daily Load analysis for an atmospherically derived pollutant.
deposits in the watershed\textsuperscript{8,9}, presumably as “reactive gaseous mercury” which has relatively short travel distances and residence times in the atmosphere. In aquatic systems, this form of mercury readily converts to methylmercury, the form most toxic to humans and wildlife.

These studies point toward the environmental benefits of reducing mercury from local sources, in addition to highlighting the problems associated with a mercury cap and trade program. We also note that the Chesapeake 2000 Agreement commits the signatory states and the District of Columbia to ensure that fish within the Chesapeake Bay are safe to eat by all Bay area residents and visitors and to develop and implement strategies that will reduce the chemical contaminants responsible for fish advisories. Reducing mercury pollution from power plants will go along way toward achieving these commitments. To that end, we urge the OTC to adopt the model mercury rule proposed by the State and Territorial Air Pollution Program Administrators (STAPPA) and Association of Local Air Pollution Control Officers (ALAPCO)\textsuperscript{10} to achieve the necessary emission reductions from EGUs.

In closing, we are pleased that the OTC is committed to achieving reductions in SO\textsubscript{2}, NO\textsubscript{x} and mercury emissions and strongly suggest that the caps and timeframe outlined in the OTC Multi-Pollutant position be included in the CAIR Plus model rule slated for release in June 2006. Furthermore, we urge the OTC member states to move expeditiously in developing regulations to implement the model rule that will provide environmental and human health benefits to the region that far outweigh the expected costs.

Thank you for the opportunity to comment on this important issue.

Sincerely,

Beth L. McGee, Ph.D.
Senior Regional Water Quality Scientist

cc: Interim Senior Deputy Director Marie Sansone, DC Department of Health
Secretary Kendl Philbrick, Maryland Department of the Environment
Secretary Kathleen McGinty, Pennsylvania Department of Environmental Protection
Secretary David Paylor, Virginia Department of Environmental Quality

\textsuperscript{8} Cohen, M. 2004. Modeling the Fate and Atmospheric Transport of Mercury in the Chesapeake Bay Region. Presentation at the NOAA Chesapeake Bay Office, May 17, 2004. Annapolis, MD.
\textsuperscript{9} Gray, A. Gray Sky Solutions, San Rafael California. Personal Communication.