

DEPARTMENT OF THE ENVIRONMENT  
AIR AND RADIATION MANAGEMENT ADMINISTRATION

**RESPONSE TO COMMENTS**

for the

PUBLIC HEARING held on June 29, 2015  
in BALTIMORE, MD  
related to new Chapter COMAR 26.11.38

Purpose of Hearing: The purpose of the public hearing was to allow for public comment on the Department's proposal regarding new chapter COMAR 26.11.38 Control of NO<sub>x</sub> Emissions from Coal-Fired Electric Generating Units.

The proposed action establishes new nitrogen oxides (NO<sub>x</sub>) emission standards and additional monitoring and reporting requirements for coal-fired electric generating units in Maryland.

Date and Location: The public hearing was held on June 29, 2015 at 10 a.m. at the Department of the Environment, 1800 Washington Boulevard, 1st Floor Aeris and Aqua Conference Rooms, Baltimore, Maryland 21230.

Attendance: 40 Attendees

Statement: The Department's statement was read by Eddie DuRant, Regulatory and Compliance Engineer of the Regulations Development Division of the Air and Radiation Management Administration, Department of the Environment.

Comments and Responses: Comments were received from Raven Power, Michael Powell; Sierra Club, Joshua Berman and David Smedick; Chesapeake Climate Action Network, Jon Kenney; Environmental Integrity Project, Leah Kelly; Interfaith Power & Light (MD, DC, NoVA), Clara Summers; Maryland Environmental Health Network, Rebecca Rehr; Jennifer Kunze; Jackie Fullerton; Maranda Kosten and Tal Kosten; Lisa Bardack; Elizabeth Agbetsiafa-Awuah; Climate Stewards of Greater Annapolis, Wilfred Candler; Regina Minniss; Sara Via; Linda Kangrga; Dave Mayeske; Christine Keels; Chesapeake Physicians for Social Responsibility, Alfred Bartlett; New Jersey Department of Environmental Protection, William O'Sullivan.

A summary of the comments received and the Maryland Department of the Environment's (the Department or MDE) responses are below.

**COMMENT:**

Multiple commenters state that this proposed regulation is duplicative and unnecessary and the Department should implement its previously adopted NO<sub>x</sub> regulation for coal plants, which was signed and submitted for publication in the Maryland Register on January 16, 2015.

A commenter states that the previous Administration signed air quality regulations "Control of NO<sub>x</sub> Emissions from Coal Fired Electric Generating Units" on January 16<sup>th</sup>, 2015. If the regulations were not effective, please explain why not.

**RESPONSE:**

The regulations, to which the commenters referred, were held for review before a notice of final adoption was published in the Maryland Register. Therefore, in accordance with State Government Article §10-117(a)(1)(i), the previously proposed regulations have not gone into effect and are not part of the Code of Maryland Regulations (COMAR). Thus, this proposed regulation is not duplicative. *See also* Letter from Sandra Benson Brantley to the Honorable David R. Brinkley, dated December 12, 2014.

**COMMENT:**

A commenter states that the Department has issued emergency regulations. These emergency regulations are only good for 180 days. The commenter asked what happens after the 180 days.

**RESPONSE:**

Emergency regulations remain in effect for a limited period of time – not to exceed 180 days. The emergency regulations, COMAR 26.11.38, are effective from May 1, 2015 to October 26, 2015. Therefore, concurrently with the emergency regulations, the Department proposed these regulations that mirror the emergency regulations. This regulatory action will follow the normal regulatory adoption process and these regulations will be effective beyond 180 days.

**COMMENT:**

A commenter states that implementing modern control technologies is the portion of the January 16<sup>th</sup> regulations that would be most protective of public health. The commenter questions why the proposed regulations only present part of the carefully negotiated and broadly supported plan.

A commenter questions why the Administration is reviewing the previously proposed “Phase 2” regulations.

Multiple commenters support the current proposed regulation; however, requiring Maryland’s coal plants to run their existing controls more often is not a viable solution by itself. They state that coal-fired power plants should install modern pollution controls on every unit, switch to a cleaner fuel, or retire.

A commenter recommends that MDE adopt additional emission reduction measures beyond operating existing pollution controls. The commenter cites factors such as interstate transport, current air quality data, reasonably available control technology (RACT), and the “good neighbor” provision of the Clean Air Act (CAA) as reasons to adopt additional emission reduction measures.

**RESPONSE:**

The Department plans to move forward with longer-term NO<sub>x</sub> regulations that protect public health and promote a sustainable economy. The Department is committed to working with all

stakeholders and plans to have a proposed regulation by fall of 2015. This action is part of a series of initiatives that will allow Maryland to attain and maintain compliance with the current health-based federal standard for ozone pollution and comply with the “Good Neighbor” provisions of the Clean Air Act.

**COMMENT:**

A commenter notes the Department is working with stakeholders to develop additional regulations that will provide more flexibility than the previous “Phase 2” obligations, while maintaining the stringency of the requirements proposed previously.

**RESPONSE:**

The Department agrees with this comment.

**COMMENT:**

A commenter states that the proposed NO<sub>x</sub> regulation regulates only one aspect of coal plant operations: operation of installed emission controls. The commenter adds the proposed regulation does not fully address MDE’s broader obligation to bring Maryland into attainment with the 2008 and forthcoming 2015 ozone standards, to address the State’s contribution to ozone in the Ozone Transport Region, and to protect public health. The regulation omits those elements of the January 16<sup>th</sup> NO<sub>x</sub> regulations that require additional emission reductions from coal units lacking state-of-the-art selective catalytic reduction (SCR) controls.

A commenter states that if the Department adheres to its promised schedule for the 2020 coal plant NO<sub>x</sub> requirements, it could submit those as a full package addressing the necessary emission reductions from both SCR and non-SCR units and targeting coal plants’ contribution to peak day NO<sub>x</sub> emissions in Maryland. The commenter adds [the Department] could do so without delaying its intended deadline for submitting its attainment State Implementation Plan to the U.S. Environmental Protection Agency (EPA), which the Department has indicated it intends to submit “by the end of the year.”

A commenter states that we need regulations that deal with peak emissions.

A commenter states the proposed NO<sub>x</sub> regulation does not require additional emission reductions from coal units lacking state-of-the-art SCR controls.

**RESPONSE:**

The Department agrees that Maryland has an obligation to bring its areas into attainment of the 2008 ozone standard, and any future ozone standards promulgated by the EPA. As of June 1, 2015, the EPA has determined that the Baltimore area, the only moderate nonattainment area in the State, is attaining the 2008 ozone standard. *See* 80 Fed. Reg. 30,941 (June 1, 2015).

The proposed regulations provide substantial NO<sub>x</sub> emission reductions. The measures in the proposed regulations do reduce peak day NO<sub>x</sub> emissions by requiring the owners and operators of coal-fired electric generating units to operate NO<sub>x</sub> pollution controls to minimize emissions anytime the unit is in operation and burning coal. These reductions will contribute to the attainment and maintenance of the 2008 and subsequent ozone standards, and will reduce interstate transport of emissions from Maryland to other states.

The Department expects to complete regulations requiring longer-term NO<sub>x</sub> reductions by the end of 2015. The Department anticipates the additional proposal may provide further early emission reductions toward attainment and maintenance with the 2008 ozone standards as well as contribute to attainment of the expected 2015 ozone standard. This schedule allows the Department to include these regulations in its attainment plan for the state proceeding on a parallel track.

**COMMENT:**

A commenter states that acute exposures to high levels of nitrogen dioxide in and of itself can lead to a decline in pulmonary function and increased sensitivity to bronchial constrictors, especially in children and asthmatics, aside from its contribution to ozone. The commenter adds that children active in multiple outdoor sports who live in high ozone environments have three times the likelihood of developing asthma as children who do not spend active time outdoors.

A commenter states nitrogen dioxide is a precursor to fine particle pollution associated with an increase in mortality. The commenter states that SCR technology reduces secondary fine particle pollution. The commenter asserts that Maryland has poor nitrogen oxide emission controls and recommends that Maryland require SCR technology for all Maryland coal-fired power plants and that the plants be required to use this technology at all times. The commenter maintains that system-wide controls allow some areas to experience unacceptable levels of nitrogen oxide air pollution.

A commenter states that air quality research increasingly indicates that there are narrow airsheds around sources of pollution when human exposure even for a short time can be very damaging.

Multiple commenters state that it is an issue of justice to protect those who live closest to power plants and others who are vulnerable to air pollution, such as children, asthmatics, and the elderly.

**RESPONSE:**

The Department agrees that acute exposure to nitrogen dioxide (NO<sub>2</sub>) can directly affect human health. The EPA first set standards for NO<sub>2</sub> in 1971, setting both a primary and secondary standard at 53 ppb, averaged annually. In January 2010, the EPA established an additional primary standard at 100 ppb, averaged over one hour. Maryland complies with the NO<sub>2</sub> health-based standard. All areas of Maryland comply with the fine particle standard.

The measures in the proposed regulations further reduce NO<sub>x</sub>. Reducing NO<sub>x</sub> emissions will also reduce adverse health effects associated with NO<sub>2</sub> exposure. Additionally, the Department plans to move forward with longer-term regulations that will provide additional emissions reductions and protect public health. The Department has also formed a workgroup to discuss cumulative impacts and address issues of environmental justice.

Maryland is not only in compliance with the current NO<sub>2</sub> standards, but the levels of ozone in the Baltimore and Washington areas have been reduced significantly in the past few decades. The geographic extent of areas actually experiencing levels of ozone above the 2008 standard has been reduced significantly.

#### **COMMENT:**

The commenter states that long term exposure to ozone pollution is associated with an increase in respiratory mortality. The commenter asserts that the Baltimore-Washington corridor has the 8th worst ozone pollution in the U.S.

A commenter provides an extensive review of the studies undertaken to assess the public health risk of exposure to ozone and nitrogen oxides, and provides support for the federal health-based air quality standards. The commenter describes the Baltimore region's air quality status with respect to the ozone NAAQS, emphasizing the importance to public health of attaining the federal ozone standard as expeditiously as possible.

A commenter cited a recent study released by MIT researchers in August, 2014, which estimated that of every 100,000 residents in the city of Baltimore alone, 130 people were likely to die prematurely each year from air-pollution related causes.

#### **RESPONSE:**

The Department and the EPA have reviewed extensive research associating ozone exposure with adverse health effects in numerous toxicological, clinical and epidemiological studies. Reducing ozone concentrations is associated with significant human health benefits, including the avoidance of mortality and respiratory illnesses. These health benefits include fewer asthma attacks, hospital and emergency room visits, lost work and school days, and lower premature mortality.

The Department has made significant strides in the Baltimore-Washington region in lowering exposure to ozone and will continue to work towards achieving compliance with federal ozone standards. The Baltimore-Washington region has historically ranked high with respect to ozone, but more recent air monitoring data have shown significant reductions in pollution levels.

The MIT study cited by the commenter was released in August 2013 and used emissions data from years prior to the implementation of the Healthy Air Act. The Healthy Air Act, which resulted in a 70% reduction in NO<sub>x</sub> emissions, helped Maryland achieve compliance with the fine particle standards, lowered ozone levels, and reduced transported pollution to other states.

The use of emissions data from a decade ago rather than current emissions data has resulted in conclusions that are not properly applied to Baltimore's current situation.

This NO<sub>x</sub> regulation and future NO<sub>x</sub> regulations will be key elements in Maryland's current and future State Implementation Plans (SIPs) to achieve both significant additional emissions reductions and statewide compliance with the federal ozone standard.