

**Agenda Item: 12-32 Request to Proceed to Hearing on Revisions to New Source Review and Prevention of Significant Deterioration (PSD) Nitrogen Oxides (NO<sub>x</sub>) Significance Level for PM<sub>2.5</sub> (512) and PM<sub>2.5</sub> Increment (516)**

**Explanation:**

The Environmental Management Commission (EMC) is requested to approve one or more public hearings to consider amendments to prevention of significant deterioration and new source review rules.

15A NCAC 02D .0530, Prevention of Significant Deterioration, is proposed for amendment to revise North Carolina's nitrogen oxides (NO<sub>x</sub>) significance level from 140 tons per year to 40 tons per year and to update the federal cross-reference to reflect the current federal increments for fine particulate matter (PM<sub>2.5</sub>).

15A NCAC 02D .0531 Sources in Nonattainment Areas, is proposed for amendment to revise North Carolina's nitrogen oxides significance level from 140 tons per year to 40 tons per year.

The EMC amended the New Source Review (NSR) and Prevention of Significant Deterioration (PSD) permitting rules in 2010 to establish the significance level for NO<sub>x</sub> for PM<sub>2.5</sub> in North Carolina at 140 tons per year (tpy). This significance level was based on monitoring and modeling data indicating that NO<sub>x</sub> is a lessor contributor to the formation of PM<sub>2.5</sub> than sulfur dioxide (SO<sub>2</sub>). As part of its rule review of North Carolina's state implementation plan (SIP), the United States Environmental Protection Agency (USEPA) has determined that, while the federal rule allows for a demonstration that NO<sub>x</sub> is not a significant precursor to formation of PM<sub>2.5</sub>, there is not an allowance for states to establish an alternate significance level. As a result, the state significance level must be revised to reflect the federal 40 tpy significance level in the USEPA PM<sub>2.5</sub> Implementation Rule.

In 2010, the USEPA added PM<sub>2.5</sub> increments under the program. An increment is the maximum allowable increase in ambient pollutant concentration. Federal increments were established for 24-hour and annual averaging periods in Class I, Class II and Class III areas. Adoption of these federal increments is required in order for the USEPA to approve North Carolina's SIP. The current date of incorporation in the state rule needs to be updated to reflect the current PM<sub>2.5</sub> increments for the current annual and 24-hour NAAQS established by the USEPA.

There are no anticipated costs or benefits associated with the change in NO<sub>x</sub> significance level for PM<sub>2.5</sub> because the significance level of NO<sub>x</sub> for ozone is already 40 tons per year. State government and the private sector will face additional costs to incorporate the federal PM<sub>2.5</sub>

increments into the PSD program. Based on an average of six PSD applications received by the Division of Air Quality (DAQ) per year, the total annual impact to the private sector would be approximately \$134,000. DAQ would have about \$17,000 in additional expenses. The overall total cost increase to all entities would be approximately \$151,000 per year. These cost estimates are based on the assumption that all applicant facilities will need the highest level of analysis; actual costs may be lower.

Although there are not any expected quantifiable health benefits to the public as a result of these amendments since all areas of the state are currently in attainment for PM<sub>2.5</sub>, the NO<sub>x</sub> significance levels and the PM<sub>2.5</sub> increments are required elements of a NSR program designed to help prevent a violation of the National Ambient Air Quality Standard (NAAQS) for PM<sub>2.5</sub>. The NAAQS is set at a level to be protective of both public health and the environment. The public would benefit from the state retaining its attainment status through the use of the NO<sub>x</sub> significance levels and the PM<sub>2.5</sub> increments.

**Recommendation:**

The Director recommends that the Commission approve the proposed rules and fiscal note, and authorize a public hearing(s) on these items and that the Chairman appoint a member(s) of the Commission to serve as hearing officer(s).