

**Agenda Item:**                    **Request to Proceed to Hearing on Revision of Arsenic Acceptable Ambient Level (AAL) (514)**

**Explanation:**

The Environmental Management Commission (EMC) is requested to approve one or more public hearings to consider amendments to the state air toxics rules to revise the health-based acceptable ambient level and associated emission rate requiring a permit for arsenic and inorganic arsenic compounds.

North Carolina's health risk-based air toxics rules provide for local scale evaluation of the maximum impact of air toxic emissions from a facility at or beyond its property boundary through site-specific emissions estimates and modeling. Under the air toxics rules, a facility must demonstrate through modeling that predicted concentrations at or beyond the property boundary are below acceptable ambient levels as defined in the Toxic Air Pollutant Guidelines. The emission rates requiring a permit, also referred to as "toxics permitting emission rates" (TPER), are screening levels to which facility-wide emissions levels are compared to determine whether further analysis (modeling) is necessary. The TPER is a conservatively set threshold below which, even under the worst case air pollutant dispersion conditions, impacts at the property boundary would not be expected to approach the health based AALs.

The amendments are proposed based upon recommendation of the North Carolina DENR Secretary's Science Advisory Board (SAB) which studies the toxicological effects of toxic air pollutants and advises the EMC regarding the necessary level of control of those pollutants for protection of human health and the environment. Through its public process, the SAB conducted a review of the AAL for arsenic and inorganic arsenic compounds and chose a lung cancer health endpoint based on human health studies of arsenic exposure as the basis for its recommendation. The SAB recommends that the AAL be revised to a level within an interval of concentrations from  $1.6 \times 10^{-6}$  to  $3.0 \times 10^{-6}$  mg/m<sup>3</sup> and specifically recommends a revised AAL of  $2.1 \times 10^{-6}$  mg/m<sup>3</sup>.

15A NCAC 02D .1104, Toxic Air Pollutant Guidelines, contains the acceptable ambient levels for toxic air pollutants. The rule is proposed for amendment to revise North Carolina's acceptable ambient level for arsenic and inorganic arsenic compounds from the current annual value of  $2.3 \times 10^{-7}$  milligrams per cubic meter to  $2.1 \times 10^{-6}$  milligrams per cubic meter.

15A NCAC 02Q .0711, Emission Rates Requiring a Permit, is proposed for amendment to revise the corresponding emission rate requiring a permit for arsenic and inorganic arsenic compounds from the current value of 0.016 pounds per year to 0.053 pounds per year.

The proposed amendments are expected to reduce regulatory burden while maintaining protection of public health. 137 fewer facilities potentially would be affected by the revised AAL and corresponding TPER than under the current AAL and TPER. The Office of State Budget and Management (OSBM) approved fiscal analysis estimates \$196,000 in annualized avoided costs to the regulated community beginning in the first year due to less restrictive permit conditions or not installing add-on controls. Cumulative avoided costs reach \$980,000 in the five year period of analysis based on an assumption that two percent more of potentially affected facilities each year experience the costs savings. The annual avoided cost for DAQ modeling effort due to a higher AAL and TPER is estimated to be \$14,700. The fiscal note estimates the impact to be substantial as defined by the Administrative Procedures Act (APA), i.e., greater than \$500,000 in aggregate to all affected parties in a twelve month period.

**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).