

**Agenda Item: 13-20**     **Hearing Officer’s Report on Revision of Arsenic Acceptable Ambient Level (AAL) (514)**

**Explanation:**

A public hearing was held in Raleigh, NC on May 14, 2013, to take public comments on proposed 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. Mr. Chris Ayers of the Environmental Management Commission (EMC) and Mr. Donnie Redmond of the Division of Air Quality were appointed as hearing officers. Upon recognition of a potential for appearance of conflict of interest at the start of the hearing, Mr. Ayers recused himself from this matter and Mr. Redmond served as the remaining hearing officer. The comment period closed May 14, 2013.

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 with the statutory exceptions enacted by S.L. 2012-91, 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 proposed amendments are 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 recommended 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 and 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.

One person presented oral comments at the hearing on behalf of two entities who later submitted written comments. Five sets of written comments representing seven entities were submitted during the comment period. Three commenters supported the changes to the arsenic AAL and TPER and encouraged the adoption of the changes without delay. Supporters commented that measured arsenic levels across the state being above the existing AAL incorrectly suggest that North Carolina's air is unhealthy given the existing AAL is based on an outdated analysis. They agreed with the fiscal note or indicated actual costs would be even higher for individual companies. Supporters also noted that revising the arsenic AAL is consistent with reform of the air toxics program under Session Law 2012-91 to reduce the unnecessary regulatory burden on regulated sources and maintain protection of public health.

Two sets of comments presented concerns over changing the arsenic AAL and TPER. One opposing comment was that the new data and its analysis, on which the proposed revised arsenic AAL was based, had not undergone peer review. Since the NCSAB issued their revised risk assessment, the data and analysis used by the NCSAB as a basis to recommend updated AALs for arsenic has been recently published as an article in a peer-review journal. A second opposing comment was that arsenic background ambient levels were above the existing AAL. To consider background levels in setting AALs and TPERs is asking for measures beyond the current structure and scope of the toxics program. While set at a higher level, the proposed arsenic AAL is still calculated to represent the same risk increment and the same protection in human health as before. Another comment was that the NCSAB failed to consider impacts through ingestion. The NCSAB exposure assessments generally take into account only potential inhalation exposure when making recommendations on an AAL. Commenters also said that revision of the AAL should not occur until EPA completes its ongoing toxicological review of arsenic. No changes were made to the rules as a result of the comments received.

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 Hearing Officer recommends that the Commission adopt the proposed rules as presented in Chapter II of the hearing record.