

Concept

Asbestos Acceptable Ambient Level (AAL) Correction (518)

Reason for Action

To revise the AAL for Asbestos in the North Carolina Air Toxics Rules

Scope/Nature/Summary

When North Carolina's air toxics program was developed, in order to provide scientific expertise over time a standing science advisory board was established to study the toxicological effects of toxic air pollutants (TAPs) and advise the Environmental Management Commission (EMC) as to the essential level of control of those pollutants for protection of human health and the environment. The Secretary's Science Advisory Board (SAB) on TAPs was chartered by the Secretary of the Department of Environment and Natural Resources to make recommendations to the EMC to minimize the potential health hazards resulting from inhalation exposures to TAPs. The SAB uses scientific risk assessment methods and standard practices to develop recommendations for AALs for TAPs emitted in North Carolina.

A mathematical mistake made during the original determination of the asbestos AAL was discovered during a review of the AAL documentation. Members of the SAB discovered and confirmed the mistake. In the original calculation a value of 100,000 that should have been used in the AAL determination was omitted. This error of omission resulted in an AAL that is five orders of magnitude (factor of exactly 100,000) below what it should be. The asbestos AAL should be 2.8×10^{-6} fibers per milliliter (f/mL) and not the 2.8×10^{-11} f/mL currently listed in 15A NCAC 02D .1104, Toxic Air Pollutant Guidelines. The revised asbestos AAL value is closer to both the EPA (4×10^{-6} f/mL) and the California Office of Health Hazard Assessment (6.7×10^{-6} f/mL) inhalation exposure limit values than the original AAL. The revision will bring the North Carolina asbestos AAL in line with comparable asbestos inhalation exposure limits for a federal government agency and another state government agency.

Existing rule numerical values for the asbestos AAL in 15A NCAC 02D .1104 and the associated asbestos toxic pollutant permitting emission rate (TPER) in 02Q .0711 will need to be modified.

Statutory Authority

G.S. 143-215.3(a)(1); 143-215.107(a)(3), (4), (5); 143-215.108; 143B-282.