NORTH CAROLINA
Department of Environmental Quality

Division of Air Quality

Secretaries' Science Advisory Board

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How Does the SAB help DAQ?

- **NC Air Toxics program**
  - **Acceptable Ambient Levels (AALs)**
    - **Used in air quality permitting**

- **As part of establishing or updating an AAL, SAB has:**
  - **Provided technical expertise to DAQ in the areas of toxicology and risk assessment**
  - **Issued recommendations for AALs**

- **Process:**
  - **Consider relevant literature, hear presentations from experts, SAB deliberations… arrive at a recommendation, including a range of risks and degree of confidence**
  - **SAB recommendations would be designated as draft, put out for public comment, and later finalized**

What happens next?

- **With the SAB recommendations, DAQ would initiate the rule-making process with the Environmental Management Commission (EMC)**

- **The DAQ staff provide technical and economic analyses to the EMC in the standard setting process.**

Recent example – Methyl Bromide

- **2018-2019**
  - **DAQ identified that there were insufficient protections in place for emissions from log fumigation operations using methyl bromide**
  - **The fumigant, methyl bromide, is listed as a hazardous air pollutant in the Clean Air Act. However, there were no federal or state air quality regulations to protect the general public from these emissions… including no AAL.**
  - **Unlike many agricultural uses, log fumigation facilities are more of an industrial point source where much greater quantities of methyl bromide are released in one location.**
  - **The potential for acute (short-term) exposures for people nearby such a facility is concerning provided that methyl bromide is highly toxic and studies in humans indicate that the lung may be severely injured by the acute inhalation exposures. Acute and chronic inhalation of methyl bromide can lead to neurological effects in humans.**

Methyl Bromide

- **2018-2019**
  - **DAQ came to the SAB for assistance to develop an AAL for Methyl Bromide**

  - **The SAB provided a recommendation of:**
    - **0.078mg/m^3 on a 24-hr basis**
    - **0.005mg/m^3 on an annual basis**

Methyl Bromide

Rules passed by the EMC in September 2020

- **AALs established at:**
  - **1.0 mg/m^3 on a 24-hr basis**
  - **0.005 mg/m^3 on an annual basis**

Methyl Bromide

- **Rules became effective in November 2020**
- **Implementation continues**
- **Modifying permits of existing facilities**
  - **Physical changes to emission points**
    - **Stacks and forced ventilation**
  - **Operational limitations**
    - **Time of day restrictions**
    - **Hours of operation restrictions**
    - **Quantity of fumigant per unit time limits**
- **Significantly reduced exposures - demonstrated through modeling – relative to the prior operating scenarios**

Contact information

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