Agenda Item: 18-54 Request Waiver of 30-day Rule and Approval to Proceed to Public Hearing on Proposed Temporary Rule Adoption on Control of Emissions from Log Fumigation Operations, 15A NCAC 02D .0546 (548)

Explanation: The Environmental Management Commission (EMC) is requested to approve a waiver of its 30-day rule on the proposed rule actions and to approve one or more public hearings to consider the temporary adoption of 15A NCAC 02D .0546, Control of Emissions from Log Fumigation Operations, and temporary revisions to 15A NCAC 02D .1104, Toxic Air Pollutant Guidelines.

China and India are driving strong market demand for southern yellow pine logs. Their importation specifications require the logs to be quarantined, fumigated with methyl bromide, a federally listed hazardous air pollutant, or debarked to control wood-boring pests prior to acceptance at a foreign port. Due to the strict foreign import specifications and strong market demand, North Carolina is currently experiencing an increase in permit applications and inquiries from entities interested in methyl bromide whole log fumigation. Some of the entities are conceptualizing larger log fumigation operations that would have the potential to trigger the "major source" thresholds for hazardous air pollutants pursuant to air quality permitting rules.

There are two primary methods to fumigate logs: container fumigation and bulk fumigation. The container-based fumigation process requires the placement of whole logs in a shipping container, sealing the container, and injecting the fumigant inside to dwell for 60 to 72 hours. Afterwards, the container doors are opened and the fumigant is vented to the atmosphere. This process encapsulates the majority of fumigation operations in North Carolina. Similarly, the bulk log fumigation process requires the placement of whole bulk log stacks under a tarpaulin covering and injecting the fumigant inside to dwell for a period of time. Afterwards, the fumigant is either fanned to the atmosphere or the tarpaulin covering is removed.

The United States Environmental Protection Agency (EPA) implements restrictions on methyl bromide use in response to phase-out requirements established under the Montreal Protocol signed April 12, 1988 enacted January 1, 1989. The EPA authorizes use of methyl bromide for quarantine and pre-shipment (QPS) applications by the specific QPS exemption under Title VI (Stratospheric Ozone Protection) of the Clean Air Act. The final regulation published on January 2, 2003 in the Federal Register, 68 FR 238, for QPS exempted use for methyl bromide as a fumigant. North Carolina has five permitted synthetic minor log fumigation facilities utilizing methyl bromide in Wayne, Bladen, New Hanover, and Columbus counties. Of these permitted synthetic minor facilities, there are not additional requirements other than limiting methyl bromide emissions to less than 10 tons per year[1], reporting conditions, and reporting 100 percent usage of methyl bromide as emissions.

1 40 CFR 70.2 defines a major source of hazardous air pollutant at 10 tons per year or greater.

The Division of Air Quality is concerned about the potential for chronic (long-term) and acute (short-term) exposures to the general public since methyl bromide is a hazardous air pollutant pursuant to Section 112 of the Clean Air Act. Methyl bromide is highly toxic and human studies suggest the lung may be severely injured by acute inhalation exposures. Acute and chronic inhalation of methyl bromide can also lead to deleterious neurological effects in humans. There are no federal or state air quality regulations to protect the public from these particular emissions. Also, unlike many agricultural uses, log fumigation facilities are more of an industrial point source where large quantities of methyl bromide are used. The current chronic reference concentration of methyl bromide for inhalation according to the Environmental Protection Agency's (EPA) Integrated Risk Information System database's comprehensive review is 5μg/m^3 (1 part per billion). The EPA reference concentration represents a value below which no appreciable daily inhalation health risks are anticipated.

Pursuant to G.S. 150B-21.1, an agency may adopt a temporary rule when it finds that adherence to the notice and hearing requirements of G.S. 150B-21.2 would be contrary to the public interest and that the immediate adoption of the rule is required. Based on the Division of Air Quality's preliminary modeling analysis of existing log fumigation facilities, temporary rules to address methyl bromide emissions from log fumigation operations are recommended to ensure that serious and unforeseen threats to public health, safety, and welfare are minimized.

15A NCAC 02D .0546, Control of Emissions from Log Fumigation Operations, is proposed for temporary adoption to establish emission control requirements for hazardous air pollutant and toxic air pollutant emissions from bulk, chamber, and container log fumigation operations.

15A NCAC 02D .1104, Toxic Air Pollutant Guidelines, is proposed for temporary amendment to add methyl bromide to the toxic air pollutant list with EPA's chronic reference concentration of 5μg/m^3 (0.005 mg/m^3) as the 24-hour acceptable ambient level (AAL).

Recommendation: The Director recommends that the EMC approve the 30-day waiver, proposed temporary rule actions, along with authorizing a public hearing(s) on the proposed temporary rule actions, and that the Chairman appoint a member(s) of the EMC to serve as hearing officer(s).