

1. Observations made of a 4" diameter stack, were of a temporary stack operating at the facility until permit issuance. This stack is being implemented as an interim measure to meet compliance with the Ambient Air Level requirements while Ecolab is awaiting approval from the NC DAQ on the proposed emission unit. Ecolab will construct an emission unit, including a stack, duct work, and exhaust system with dimensions and flow rates as in the submitted application upon permit issuance. A flow/velocity monitor will be installed as part of the proposed stack system.
2. Ecolab follows fumigation procedures published in the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine ("USDA-APHIS-PPQ") Treatment Manual¹ ("Manual") and the United States Environmental Protection Agency ("EPA") Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA") Pesticide Labels.

Ecolab will use an APHIS-approved gas detection device (e.g., thermal conductivity, infrared device, etc.) [APHIS, pg 2-2-4] at the facility. The USDA requires the fumigator to use an APHIS-approved gas detection device to measure gas concentration levels in tarpaulins, and to check for leaks around tarpaulins, chambers, containers, application equipment, and as safety device around the fumigation site [APHIS, pg. 2-3-5]. Ecolab follows USDA's equipment maintenance guidance in Chapter 8 of the Manual.

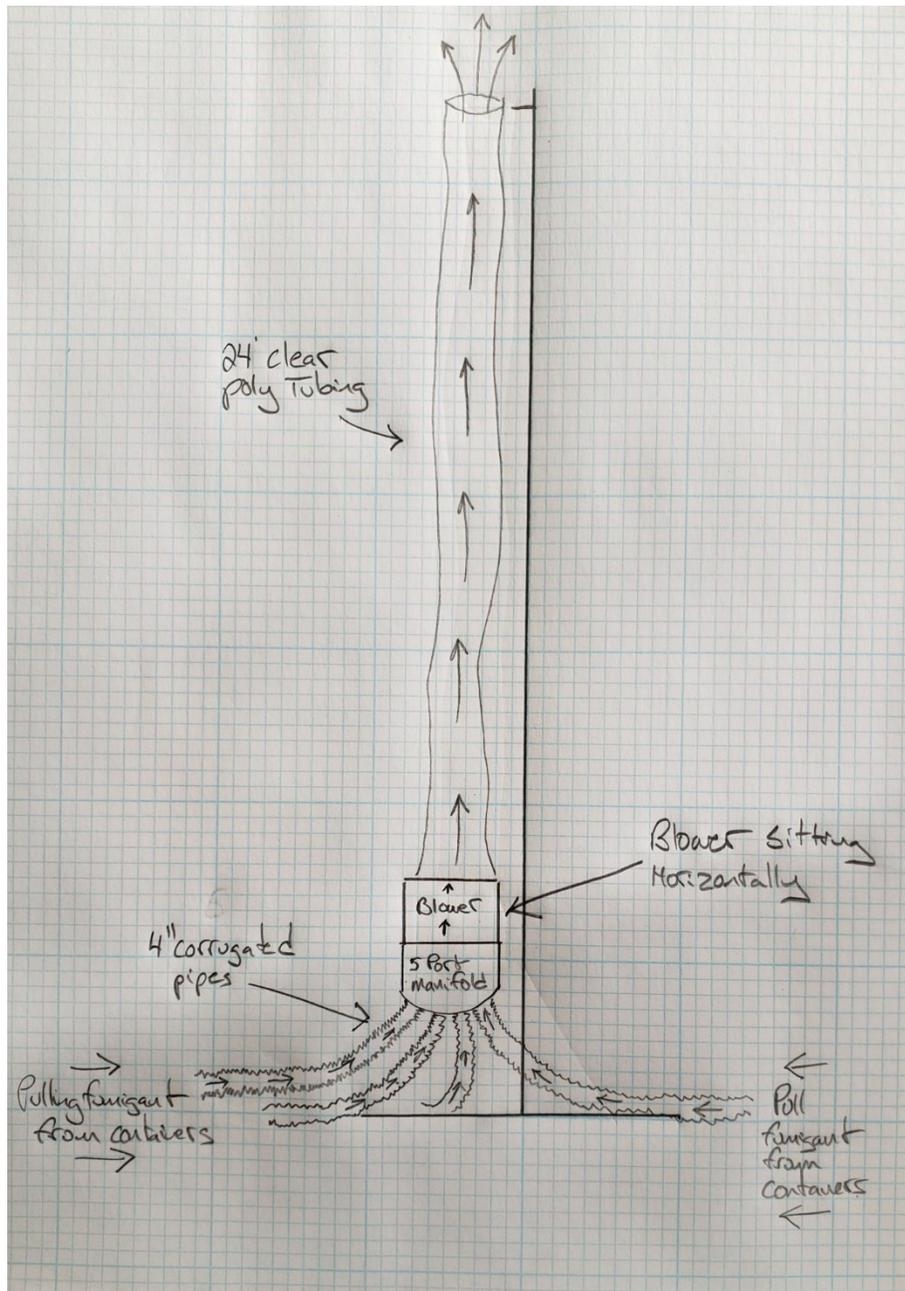
For the instance of mitigating leak loss for tarped fumigations the APHIS manual details procedures for tarp inspection, rip prevention, and sealing. See APHIS Manual pages 2-4-23 and 2-4-24. The fumigator must also check all equipment connections with an APHIS-approved real time detection device before introducing the gas [APHIS, 2-4-27]. Ecolab follows leak loss detection and corrective measures detailed on page 2-4-29 of the APHIS Manual. Excessive leakage, as described in the Manual, requires evacuation of all gas and reconstruction of the enclosure. Mitigating leak loss from containers is virtually the same methodology as described above and can be found starting on page 2-8-1 of the APHIS Manual.

Maintaining minimum enclosure concentrations for efficacy are prescribed by USDA treatment schedules. These schedules are incorporated into the APHIS Manual as Chapter 5. Internal concentrations readings are taken at specific intervals according to the commodity's treatment schedule. Therefore, fumigant leaking from an enclosure will cause the treatment to fail. Ecolab closely watches enclosure concentration levels ensuring treatment efficacy for certification. Ecolab believes in quickly mitigating fumigant leaks found through exterior ambient air monitoring and enclosure concentration measuring effectively mitigates implied fugitive emissions.

3. This kind of action does not occur during an actual fumigation process, and it is unknown if any fumigation was occurring during the time this observation was made. Ecolab fumigators follow methods and procedures, for Tarpaulin Fumigation and Container Fumigation Without a Tarpaulin, according to Chapter 2 of the APHIS Manual and EPA FIFRA Pesticide Labels.

¹ https://www.aphis.usda.gov/import_export/plants/manuals/ports/downloads/treatment.pdf

4. At the Port, log and tobacco fumigation will occur in sealed containers. For fumigation of produce, operations are different in that temperature control must be maintained. Produce will occur under sealed tarps inside a chilled building. All those techniques result in the same discharge which is through ducting to a stack. Any fugitive emissions are severely limited or eliminated by sealing the container/tarp, etc. tightly, with very detailed inspections prior to introducing the fumigant. The USDA requires certain amounts of fumigant and hold times for each specified commodity, see APHIS Manual Chapter 5 for treatment schedules. If that level of fumigant cannot be maintained in the containers, the material would not be deemed acceptable for shipment. A general flow diagram showing how multiple lines would be ducted to the common stack is shown below.



5. Stack diameter and stack height will remain constant and will be constructed to the specifications as submitted in the permit application. Analysis of the fumigation process shows that after the first hour of fumigation, approximately 10% of the residual fumigant remains in the container. After the second hour, 1% of the fumigant remains. The modeling assumes constant emissions during the proposed aeration times (e.g., 8AM-5PM), there are no reduced emissions considered in subsequent hours. As such, the results for the daily AAL evaluation are conservative with regards to how emissions actually occur. The constant hourly emissions in the model were used to determine a limit (in lb/day) that would ensure compliance with the AAL. Therefore, fumigant quantities below the proposed daily and annual limits likewise ensure compliance with the AAL.
6. The locations of the fumigation sites are all within Port property, which is restricted to the public by gate, security patrols and fencing. Ecolab continuously works with Port staff to make sure they understand where and when fumigation operations are occurring to maintain safe conditions. In fact, fruit fumigation operations (in the cold storage facility area) are limited to nighttime hours (6PM-10PM) to meet Port worker safety criteria. Signage will be posted, including but not limited to such language as: "Area under fumigation, do not enter", "Methyl Bromide Fumigant in use", and the date and time of fumigation. The locations of these signs are strictly dictated by the USDA APHIS manual to ensure no workers or general public enter the area.
7. There will be no tarped fumigation of logs at the Port facility, rather only the produce operation occurs under tarp. Tarped fumigation will occur at the Flowers facility. It is assumed that all fumigant mass is conserved and exhausted to the atmosphere, as modeled. Therefore, daily and annual fumigant quantities below those proposed as limits in the application will ensure compliance with the AAL.