



Pesticide User Licence Conditions for the Use of Fumigant* Pesticides

* Fumigants are pesticides designed to work as gases with the active ingredients aluminum phosphide, carbon dioxide, chloropicrin, dazomet, ethylene oxide, magnesium phosphide, metam-sodium, methyl bromide, phosphine, or sulfuryl fluoride.

Fumigation Management Plans (for any use of methyl bromide or the use of any fumigant in or on a ship, aircraft, building, container or other enclosure)

1. Prior to each fumigant use or aeration, an up-to-date, site-specific fumigation management plan must be prepared/updated to ensure that: all fumigant active ingredients that will be used or released are listed; the most current fumigant label requirements are reflected; and accurate treatment site information is provided.
 - 1.1. The plan must provide the following treatment site information:
 - a) maps and a written description of the site showing the approximate distances to streets, buildings, areas of human or animal activity, plants that need to be protected, neighbouring properties, ditches, streams and drains;
 - b) specific fumigant(s) to be used;
 - c) site safety and security provisions including:
 - procedures for notifying people of the fumigation
 - how buffer zones are to be used to prevent unprotected people from approaching the fumigation site
 - locations where warning signs will be posted;
 - d) treatment and aeration procedures to be used;
 - e) procedures to be followed to ensure that fumigant gas levels in the treatment site and adjacent buffers will not increase above safe levels after the aeration has been completed and the site has been declared safe for re-entry by unprotected workers;
 - f) the names of the people authorized by the licensee to be involved with any phase of the fumigation, and their duties;
 - g) pesticide residue or waste disposal procedures (e.g. for spent packets of aluminum phosphide);
 - h) on-site location (if applicable) where Material Safety Data Sheet, current label information and the fumigation management plan will be retained until aeration is complete; and
 - i) emergency procedures to be employed to remove an unconscious person from area with dangerous levels of fumigant gas to a place where the person can be safely attended by medical personnel.

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- 1.2. A Fumigation Management Plan shall be submitted to the regional delegate of the Administrator, *Integrated Pest Management Act* (the Administrator) for each treatment location at least 24 hours prior to the proposed fumigation or aeration activity. Revisions to fumigation management plans shall be submitted to the regional delegate of the Administrator within 2 business days of the revision.
- 1.3. For each treatment location, a copy of the Fumigation Management Plan must be given and explained to a person of authority at the fumigation site.
- 1.4. The licensee must modify a Fumigation Management Plan upon notice by an inspector, if the inspector finds it to be deficient in procedures necessary for the protection of human health or the environment.

Fumigant Gas-Free Certification Procedures

2. Licensees issuing documents (gas-free certificates) declaring that a fumigant is not present in, or is not escaping from, a commodity, ship's hold, container or other enclosure must ensure that individuals holding relevant fumigation certificates develop written gas-free certification procedures.
3. Gas-free certification procedures shall be submitted to the regional delegate of the Administrator prior to first use and within 2 business days of revision.
4. The licensee must modify a gas-free certification procedure upon notice of a deficiency by an inspector.

Requirement to Follow Plans and Procedures

5. The licensee must ensure that its employees follow the procedures specified in the licensee's Fumigation Management Plans and gas-free certification procedures.

Requirement to Use Certified Applicators

6. The licensee shall ensure that, when pesticide labels require work be performed by "trained individuals", the work is performed by individuals holding the appropriate fumigation category of B.C. pesticide applicator certificate (e.g. if a label requires two trained persons be present, two individuals with B.C. pesticide applicator certificates must be present).
7. The licensee shall ensure that certified individuals performing fumigation work have completed all available training offered in B.C. or on-line by the manufacturer and supplier of the fumigant being used.

Proficiency in the Application and Monitoring of Fumigants

8. Upon request by a Ministry of Environment inspector, the licensee shall provide evidence of possession of all monitoring and application equipment necessary to safely and effectively perform fumigations.

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9. The licensee shall, upon request by an inspector, ensure that certified applicators and contractors working for the licensee make themselves available for an evaluation of their ability to safely and effectively perform their work. Specific proficiencies to be demonstrated may include:
 - 9.1. Accurate and comprehensive knowledge of pesticide label requirements.
 - 9.2. Ability to develop and implement fumigant management plans and gas-free certificates.
 - 9.3. Ability to safely and effectively use fumigant application equipment.
 - 9.4. Ability to use, calibrate and maintain fumigant gas monitoring and detection devices.
 - 9.5. Clear understanding as to the role and application of colorimetric tubes, fumiscopes, sensors, photo-ionization detectors and other gas monitoring devices.
 - 9.6. Ability to safely and completely deactivate magnesium and aluminum phosphide waste.
10. If a certified applicator cannot demonstrate proficiency upon request by an inspector, the licensee shall ensure that the certified applicator does not undertake any further fumigation-related activities until such a time that an inspector can confirm attainment of the necessary level of proficiency.

Requirement to Notify Ministry of Environment

11. The licensee shall notify the regional delegate of the Administrator of the start time and location of all fumigations at the time the fumigations are booked.

Fumigant Storage

12. The licensee shall ensure that fumigants and fumigant waste is not stored overnight in vehicles.
13. Before storing fumigants overnight, the licensee shall notify the regional delegate of the Administrator of locations where fumigants are to be stored.

Measuring Temperature

14. The licensee shall accurately measure and record the temperature in representative portions of the commodity being treated as well as the ambient temperature. Temperatures are to be taken immediately before and during treatment as necessary to ensure efficacy and compliance with fumigant labels.

Measuring and Recording Fumigant Gas Levels

15. The licensee shall measure and record the concentrations of fumigants in and near the treatment area for the purposes of:
 - a) detecting fumigant leaks from the treatment area,
 - b) determining whether the pesticide use is effective,
 - c) determining when concentrations are at a level that is safe for humans to re-enter the treatment area, and if the fumigant is released into buildings or spaces where humans may be present, determining if concentrations are at a level that is safe for human exposure,
 - d) confirming specific areas to be gas-free.

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Record Keeping

16. Copies of all records relating to fumigation-related activities, including records of use, temperature and fumigant gas level records, and gas-free certificates shall be kept for at least three years and made available to an inspector upon request and without unreasonable delay.