

April 18, 2018

GROWER GAS DETECTION SYSTEM & FUMIGATION

Please note the following excerpts from the 2018 National Fire Protection Association (NFPA) Fire Code 1 and 2016 version of NFPA 55. This list is not all-inclusive yet highlights key areas to consider when navigating the application and inspection process. Marihuana facilities utilizing Carbon Dioxide Gas must have proper detection and alarm systems as required by rule and the NFPA. If a marihuana facility utilizes these processes without proper detection and alarm systems, the facility will **not** be inspected by the Michigan Department of Licensing and Regulatory Affairs (LARA).

To ensure the safety, security and integrity of the operation of marihuana facilities, the utilization of small insulated liquid carbon dioxide indoor systems requires the following:

- Per NFPA 55, rooms or areas where container systems are filled and used indoors or in enclosed outdoor locations shall be provided with a gas detection and alarm system that shall be capable of detecting and notifying the building occupants of a gas release of carbon dioxide at, or in excess of the Time-Weighted Average-Permissible Exposure Limit (TWA-PEL) published by the Occupational Safety and Health administration (OSHA) and the Threshold Limit Value-Short Term Exposure Limit (TLV-STEL) as published by the American Conference of Governmental Industrial Hygienists (ACGIH). More conservative set points shall be permitted to be used.
- Activation of the gas detection system shall initiate an audible alarm within the room or area in which the system was installed. Activation of the gas detection system shall also sound a local alarm to notify persons responsible for system operation of a hazard condition in the area in which the system is installed.
- A warning sign shall be posted at the entrance to the building, room, enclosure, or confined area where the container is located. The warning sign shall be at least 8 in. (200 mm) wide and 6 in. (150 mm) high and state the following:

CAUTION—CARBON DIOXIDE GAS
Ventilate the area before entering.
A high carbon dioxide (CO₂) gas concentration
in this area can cause suffocation.

The 2018 NFPA 1 indicates any marijuana growing facility that is fumigated shall comply with Chapter 38 Section 5.4. Sources of ignition shall be shut off during the fumigation activity and remain shut off until the required ventilation is completed.

The Bureau of Fire Services (BFS) and the local fire department shall be notified in writing not less than 48 hours before the building, structure, or space is to be closed in connection with the utilization of any toxic or flammable fumigant.

This advisory bulletin does not constitute legal advice and is subject to change. Licensees are encouraged to seek legal counsel to ensure their operations comply with the Medical Marihuana Facilities Licensing Act and associated Emergency Rules.

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Notification shall include the following:

- Location of the enclosed space to be fumigated or fogged
- Occupancy
- Fumigants or insecticides to be utilized
- Person or persons responsible for the operation
- Date and time at which the operation will begin

Notify BFS via email at LARA-BFS-Marihuana@michigan.gov not less than 48 hours before the building, structure, or space is to be closed in connection with the utilization of any toxic or flammable fumigant.

Written notice of any fumigation or insecticidal fogging operation shall be given to all affected occupants of the building, structure, or space in which such operations are to be conducted with sufficient advance notice to allow the occupants to evacuate the building, structure, or space. Written notice shall inform the occupants as to the purposes, anticipated duration and hazards associated with the fumigation or insecticidal fogging operation. Approved warning signs indicating the danger, type of chemical involved, and necessary precautions shall be posted on all doors and entrances to the premises, including interior rooms and areas. Signage shall be located at the exterior main entry and at the entries to those areas being fumigated indicating the duration of the fumigation.

During the period fumigation is in progress a watchperson shall remain on duty at the entrance or entrances to the enclosed fumigated space until after the fumigation is completed and the building, structure, or space is properly ventilated and safe for occupancy. Sufficient watchpersons shall be provided to prevent any person from entering the enclosed space under fumigation unobserved. Occupants of the building, structure, or space to be fumigated, except the personnel conducting the fumigation, shall be evacuated from such building, structure, or space prior to commencing fumigation operations.

Paper – and other similar materials – used to wrap or cover a building, structure, or space – in excess of that required for the sealing of cracks, casements, and similar openings – shall meet the flame propagation performance criteria of Test Method 1 or Test Method 2 of NFPA 701. All openings to the building, structure, or space to be fumigated or fogged shall be kept securely closed during such operation.

At the end of the exposure period the following procedures shall be followed:

- Fumigators shall safely and properly ventilate the premises and contents.
- Fumigant containers, residues, debris, and other materials used for such fumigation shall be properly disposed.
- Obstructions shall be cleared from gas-fired appliance vents.