

April 10, 2018

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## PROCESSOR GAS DETECTION SYSTEM

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 Liquefied Petroleum or 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:

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. (Note: this shall not apply to manufacture locations where containers are filled indoors and distributed for use.)

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:

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**CAUTION—CARBON DIOXIDE GAS**  
***Ventilate the area before entering.***  
***A high carbon dioxide (CO<sub>2</sub>) gas concentration in this area can cause suffocation.***

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Marihuana facilities performing Liquefied Petroleum Gas (LPG) extraction must also provide an approved continuous gas detection system. The gas detection system shall alert the extraction operator in an approved manner at a gas detection threshold no greater than 25 percent of the gas LEL/LFL. Gas detection systems shall be provided with constant non-interlocked power. An approved, listed CO<sub>2</sub> detector shall also be installed in the CO<sub>2</sub> extraction room.