



STATE OF MICHIGAN

GRETCHEN WHITMER
GOVERNOR

DEPARTMENT OF LICENSING AND REGULATORY AFFAIRS
LANSING

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Bureau of Fire Services - Cannabis Facilities

Code Spotlight – Processor - LPG

NFPA 58: Liquefied Petroleum Gas Code.

NFPA 1, 2018

38.6.2 Liquefied Petroleum Gas (LPG) Extraction.

38.6.2.1 General. Cannabis extraction facilities using liquefied petroleum gas solvents shall comply with *38.6.1 and 38.6.2 of NFPA 1.*

38.6.2.2 Exhaust.

38.6.2.2.1 An approved exhaust system shall be provided for LPG extractions.

38.6.2.2.2 The exhaust systems shall be installed and maintained accordance with *NFPA 91* or the mechanical code.

38.6.2.2.3 All LPG extraction operations, including processes for off-gassing spent plant material and oil retrieval, shall be conducted within a chemical fume hood or enclosure in compliance with *NFPA 91* or the mechanical code.

38.6.2.3 Electrical.

38.6.2.3.1 All conductive equipment and conductive objects within the exhaust room shall be bonded and grounded with a resistance of less than 1.0×10^6 ohms in accordance with *NFPA 70.*

38.6.2.3.2 The area within a hood or enclosure used for LPG extractions shall be classified as a Class I, Division 1 hazardous location in accordance with *NFPA 70.*

38.6.2.3.3 Areas adjacent to Class I, Division 1 locations shall be classified in accordance with *NFPA 70.*

38.6.2.3.4 All electrical components within the extraction room shall be interlocked with the hazardous exhaust system such that room lighting and other extraction room electrical equipment will only operate when the exhaust system is in operation.

38.6.2.3.5 An emergency power system in accordance with Section 11.7 shall be provided for the following items:

- (1) Extraction room lighting
- (2) Extraction room ventilation system
- (3) Solvent gas detection system

38.6.2.4 Extraction Room Gas Detection System.

38.6.2.4.1 An approved continuous gas detection system shall be provided.

38.6.2.4.2* 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.

38.6.2.4.3 Gas detection systems shall be provided with constant noninterlocked power.

38.6.2.5 Protection. An automatic suppression system shall be provided within hoods or enclosures, including ductwork, in accordance with the following:

- (1) An automatic water sprinkler system that meets all applicable requirements of *NFPA 13*
- (2) A carbon dioxide extinguishing system that meets all applicable requirements of *NFPA 12*
- (3) A dry chemical extinguishing system that meets all applicable requirements of *NFPA 17*
- (4) A gaseous agent extinguishing system that meets all applicable requirements of *NFPA 2001*

38.6.2.6 Storage. LPG containers not in use shall not be stored within extraction rooms.

38.6.2.7 Facility Piping Systems. LPG liquid piping systems shall be in compliance with *NFPA 58*.

38.7* Transfilling. Filling LPG extraction equipment supply containers shall be in compliance with *69.3.5, 69.4.2 of NFPA 1, and NFPA 58*.

SUMMARY

LPG Extraction (n-butane, Isobutane, Propane, Hexane, Pentane, Toluene, etc.)

Noncombustible C1D1 Extraction Room

Chemical Fume Hood in accordance with NFPA 45 **Or** Approved Exhaust System in accordance with NFPA 91 or the Mechanical Code

SDS Sheets

Listed or Approved Equipment

Submit Specifications

Emergency Power

Rule of Thumb LPG MAQ – 300lb in Sprinklered Buildings, 150lb in Non-Sprinklered Buildings

Rule of Thumb LPG Containers – 0-2,000 gal containers must be at least 10' away from a building, Above 2,000 gal must be at least 50' away from a building.

*The Bureau of Fire Services (BFS) is only one Authority Having Jurisdiction (AHJ) involved with the licensing and approval for this facility. Refer to the Michigan Building Code and the Cannabis Regulatory Agency for further requirements.