

MINNESOTA STATE DEPARTMENT OF PUBLIC SAFETY



Alcohol &
Gambling
Enforcement

Bureau of
Criminal
Apprehension

Capitol Security

Crime Victim
Services

Driver & Vehicle
Services

Emergency
Management /
Emergency
Response
Commission

State Fire
Marshal /
Pipeline Safety

State Patrol

Traffic Safety

State Fire Marshal Division

445 Minnesota Street, Suite 145, St. Paul, Minnesota 55101-5145

Phone: 651/201-7200 FAX: 651/215-0525 TTY: 651/282/6555

Internet: <https://dps/mn.gov/divisions/sfm>

LP-GAS SELF-SERVICE DISPENSING INFORMATION SHEET

SECTION 1 — INTRODUCTION

This fire safety information sheet is based on the 2015 Minnesota State Fire Code (MSFC) Section 2307.5. This contains information for authorities having jurisdiction (AHJ) and other parties for the installation and use of LP-Gas self-service dispensers by the general public. This information sheet does not apply to other types of LP-Gas dispensing covered by MSFC Section 2307.

Section 2307 has remained unchanged since development of the I-Codes by the International Code Council in 2000. These same requirements first appeared in the 1994 Uniform Fire Code and had been brought forward to the I-Codes. LP-Gas dispensing appears to be the most restrictive when it comes to dispensing products for motor vehicles. In Minnesota, chapters in the Uniform and International Fire Codes regulating LP-Gas have been deleted for many years and replaced with National Fire Protection Association (NFPA) 58, the Liquefied Petroleum Gas Code. NFPA 58 has sections for LP-Gas transfer from container to container, training requirements for dispensing, vehicle fuel dispensing systems, and installation of equipment on a vehicle's engine fuel system and training requirements.

The following sections should guide all interested parties through the process to install a self-service LP-Gas dispenser per the applicable codes. LP-Gas dispensers may be required to meet other provisions that are not listed here. This information sheet provides an overview of the major code requirements that apply to LP-Gas self-service dispensing by the general public.

References to the applicable code sections are found in brackets, []. The applicable edition of NFPA 58 is the 2011 edition, for NFPA 30A the 2012 edition and 2015 edition of the MSFC.

More information is available from the Minnesota State Fire Marshal Division at 651-201-7221. Email questions to firecode@state.mn.us or view our web page at <https://dps.mn.gov/divisions/sfm> for the latest information on fire in Minnesota.



SECTION 2 — GENERAL FIRE SAFETY PROVISIONS

2.1 Permits

Permits for the installation of the dispenser and the operation of the dispenser may be required by the AHJ for any size LP-Gas container. [MSFC Sections and 105.6.27, 105.7.9 and 2301]

2.2 Documents

Documents and plans where required by the AHJ shall indicate the equipment to be installed, site plan showing any set back requirements and signs required by this code [MSFC Section 2301.3].

SECTION 3 — INSTALLATION

3.1 Dispenser Assembly

Assembling a dispenser is considered to be an installation of the container, pumps, meters, etc. which is covered in NFPA 58, Section 6.24.

3.2 Dispenser Installation

Code requirements for the installation of the dispenser assembly including separation distances, general requirements, emergency shut off systems and breakaway devices, hose requirements and location when dispensing near Class I liquids are found in Section 6.24 and Table 6.5.3 of NFPA 58 and MSFC Section 2307.

3.3 Dispenser Protection

Dispenser assemblies shall be protected from impact damage per the requirements in MSFC Section 2307.4. This section references requirements in MSFC Section 2306.7.3 or Section 312.

3.4 Dispensers Located on island with Class I liquid dispensers

The following requirements will apply to a dispenser located on an island at a motor fuel dispensing facility near a Class I liquid dispenser [NFPA 58 Section 6.24.4.3]:

- *Conventional dispenser at least 10 feet from any dispensing device for Class I liquids OR,*
- *Low emission transfer complying with NFPA 58 Section 6.26 at least 5 feet from any dispensing device for Class I liquids.*

3.5 Dispenser Operation

Self-service LP-Gas dispensing shall be controlled by a key, code or access card issued to the trained person and limited to the fueling of containers mounted on LP-Gas powered vehicles. [MSFC 2307.5]

SECTION 4 — FIRE EXTINGUISHERS

4.1 Extinguisher Size and Location

Fire extinguishers shall be installed per MSFC Section 2305.5. Commentary in NFPA 58 Section 6.25.4 suggests it is more important to locate the shut off valves to the propane dispenser to stop the flow of LP-gas and then extinguish any remaining fire with the fire extinguisher. [MSFC Section 2305.5, NFPA 58 Section 6.25.4.3]

SECTION 5 — SIGNS

5.1 Sign Location and Details

- Signs shall be installed in the area of the dispenser and contain the following information [MSFC Sections 2304.3.5 and 2305.6, NFPA 58 Section 7.2.1.2]:
- No Smoking or Open Flame
- Shut off Motor
- Emergency Contact Numbers
- Emergency Procedures
- Trained Person to remain with vehicle at transfer point.

SECTION 6 — VEHICLE INSTALLATION

6.1 LP-Gas System Installation

Chapter 11 of NFPA 58 contains the requirements for installing LP-Gas fuel system for internal combustion engines using propane as its fuel source.

6.2 Training

Only trained persons shall install, repair, fill or otherwise service LP-Gas engine fuel system on a motor vehicle to supply LP-Gas to fuel the engine. The installer shall follow the installation requirements in Chapter 11 of NFPA 58. [NFPA 58 Section 11.2]

6.3 Labeling of Vehicles

Vehicles powered by LP-Gas used over-the-road shall be marked with a diamond shaped Propane label on the right rear of the vehicle. See Minnesota Rule 7511.8400 through 7511.8440. <https://www.revisor.mn.gov/rules/?id=7511.8410>

SECTION 7 — TRAINING

7.1 Transfer of Liquid

Portions of Chapter 7 of NFPA 58 will apply to the dispensing operation.

7.2 Training of the Public

Anyone dispensing LP-Gas into a container on a motor vehicle to fuel the engine shall be trained by the owner of the dispenser in the safe operation of the dispensing equipment. [MSFC 2307.6.1, NFPA 58 Section 4.4 and 7.2.2.1]

7.3 Documentation

The owner of the dispenser shall document the training prior to issuing a key, code or access card to the vehicle owner and any operators of that vehicle. [MSFC 2307.6.1, NFPA 58 Sec. 4.4]