

RESIDENTIAL GENERATOR INSTALLATIONS



ELECTRICAL

Optional Standby Systems

Generator installations are to comply with Article 702 of the 2002 National Electric Code.

Guidelines for Portable Generators with Manual Transfer Equipment:

Permanently installed equipment for the connection of a portable **generator** must comply with Section 702.6 of the 2002 National Electrical Code (NEC). The manual transfer equipment will require an interlock device suitable for the intended use. This device must be installed to prevent the inadvertent interconnection of the normal and the optional system supply. The connection device must be a UL Standard 231 Listed Power Outlet. The back-feeding of electrical outlets within the home is not permitted. Manufacturer's installation information for all equipment is required to be on-site for inspections. Equipment must be installed according to the manufacturer's instructions.

Guidelines for Permanent Generators with Manual Transfer Switches:

Permanently installed generators with permanently installed manual transfer equipment must comply with the provisions for portable generators or use a Listed Transfer Switch or Panel Board. The equipment must be installed so as to allow the user to select the connected loads upon manual transfer. Manufacturer's installation information for all equipment is required to be on-site for inspections. Equipment must be installed according to the manufacturer's instructions.

Guidelines for Permanent Generators with Automatic Transfer Equipment:

Permanently installed generators with automatic transfer equipment must comply with the provisions of Section 702.5 of the 2002 National Electrical Code. The calculated load as determined by Article 220 of the 2002 NEC must not exceed the rating of the **generator** output. Manufacturer's installation information for all equipment is required to be on-site for inspections. Equipment must be installed according to the manufacturer's instructions.

Required permanent signs for all installations:

702.8 Signs

- (A) Standby. A sign shall be placed at the service-entrance equipment that indicates the type and location of onsite optional standby power sources.
- (B) Grounding. Where the grounded circuit conductor connected to the optional standby power source is connected to a grounding electrode conductor at a location remote from the optional power source, there shall be a sign at the grounding location that shall identify all optional standby power and normal sources connected at that location.

Fuel Gas

616.1 Powered equipment.

Permanently installed equipment powered by internal combustion engines and turbines shall be installed in accordance with the manufacturer's installation instructions and NFPA 37.

NATIONAL FIRE PROTECTION ASSOCIATION

(NFPA 37) 3-1.4 Engines Located Outdoors.

Engines, and their weatherproof housings if provided, that are installed outdoors shall be located at least 5 ft (1.5 m) from openings in walls and at least 5 ft (1.5 m) from structures having combustible walls.

Exception No. 1: Where the adjacent wall of the structure has a fire resistance rating of at least 1 hour.

Exception No. 2: Where the weatherproof enclosure is constructed of noncombustible materials, and it has been demonstrated that a fire within the enclosure will not ignite combustible materials outside the enclosure.

(NFPA 58) Container Location.

LP tanks are to be located in accordance with NFPA 58. See attachment for diagrams.

LIQUEFIED PETROLEUM CONTAINER LOCATIONS (NFPA 58)

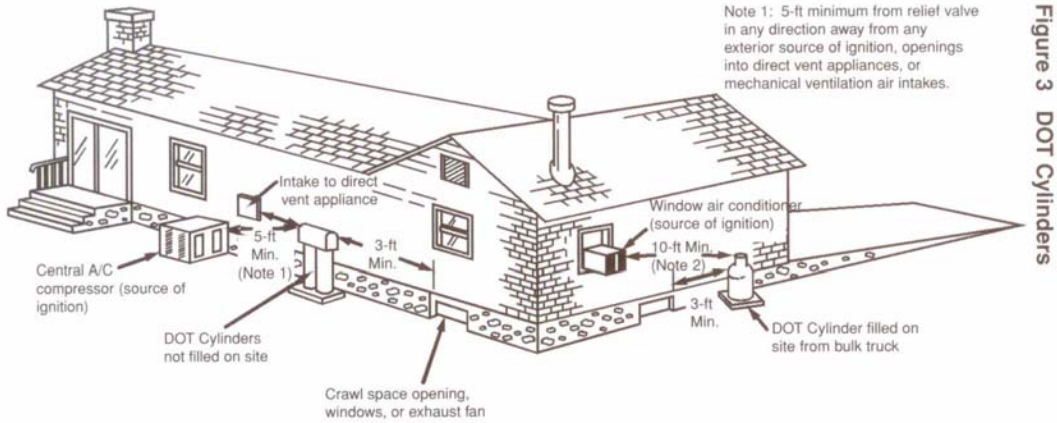


Figure 3 DOT Cylinders

Note 2: If the DOT cylinder is filled on site from a bulk truck, the filling connection and vent valve must be at least 10-ft from any exterior source of ignition, openings into direct-vent appliances, or mechanical ventilation air intakes.

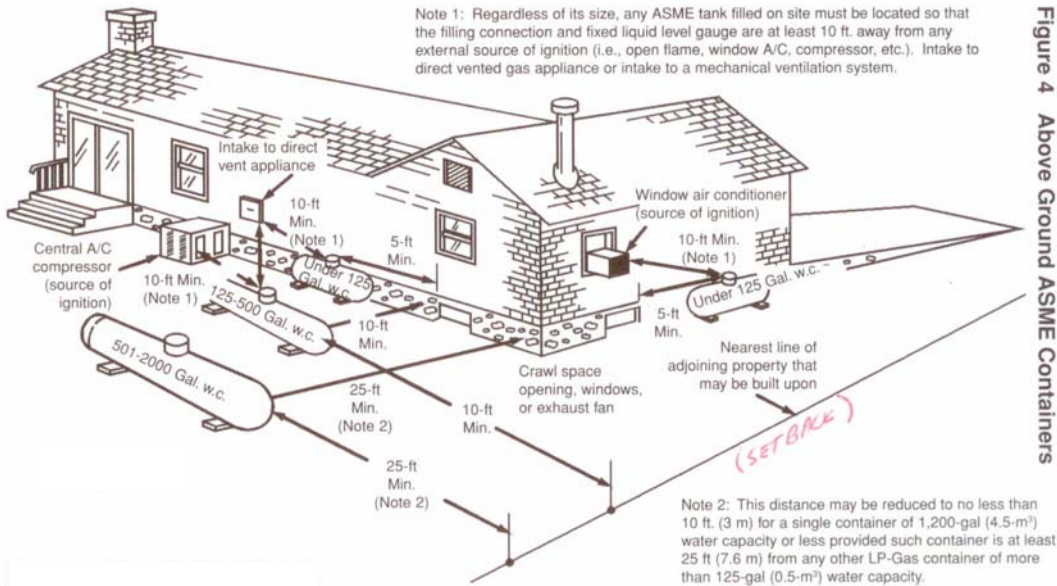


Figure 4 Above Ground ASME Containers

Note 2: This distance may be reduced to no less than 10 ft. (3 m) for a single container of 1,200-gal (4.5-m³) water capacity or less provided such container is at least 25 ft (7.6 m) from any other LP-Gas container of more than 125-gal (0.5-m³) water capacity.

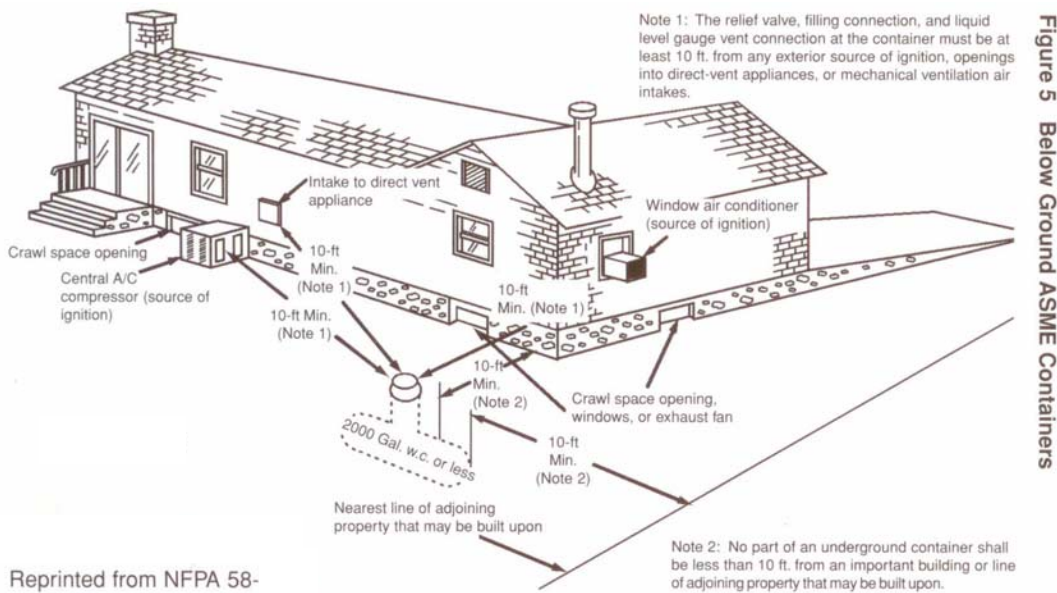


Figure 5 Below Ground ASME Containers