§ 58.16–30 Operating instructions.

(a) Before opening a cylinder valve, the outlet of the cylinder shall be connected tightly to system; and in the case where only a single cylinder is used in the system, all appliance valves and pilots shall be shut off before the cylinder valve is opened.

(b) Before opening cylinder valve after connecting it to system, the cylinder shall be securely fastened in place.

(c) When cylinders are not in use their outlet valves shall be kept closed.

(d) Cylinders when exhausted shall have their outlet valves closed.

(e) Nothing shall be stored in the metal enclosure except liquefied petroleum gas cylinders and permanently fastened parts of the system.

(f) Valve protecting caps, if provided, shall be firmly fixed in place on all cylinders not attached to the system. Caps for cylinders in use may remain in the cylinder enclosure if rigidly fastened thereto.

(g) The opening to the cylinder enclosure shall be closed at all times except when access is required to change cylinders or maintain equipment.

(h) Close master valve whenever gas-consuming appliance is not in use.

(i) No smoking is permitted in the vicinity of the cylinder enclosure when access to enclosure is open.

(j) Test system for leakage in accordance with the following procedure: With appliance valve closed, the master shutoff valve on the appliance open, and with one cylinder valve open, note pressure in the gage. Close cylinder valve. The pressure should remain constant for at least 10 minutes. If the pressure drops, locate leakage by application of liquid detergent or soapy water solution at all connections. Never use flame to check for leaks. Repeat test for each cylinder in a multi-cylinder system.

(k) Report any presence of gas odor to

§ 58.16–35 Markings.

(a) The outside of the cylinder enclosure housing liquefied petroleum gas cylinders, valves and regulators shall be marked as follows:
§ 58.20–1 Scope.

(a) The regulations in this subpart apply to fixed refrigeration systems for air conditioning, refrigerated spaces, cargo spaces, and reliquefaction of low temperature cargo installed on vessels.

(b) The regulations in this subpart shall not apply to small self-contained units.

§ 58.20–5 Design.

(a) Refrigeration machinery may be accepted for installation provided the design, material, and fabrication comply with the applicable requirements of the ABS Steel Vessel Rules (incorporated by reference, see 46 CFR 58.03–1). The minimum pressures for design of all components must be those listed for piping in Table 501.2.4 of ANSI B31.5 (incorporated by reference; see 46 CFR 58.03–1). In no case may pressure components be designed for a pressure less than that for which the safety devices of the system are set. Pressure vessels must be designed in accordance with part 54 of this subchapter.

(b) For refrigeration systems other than those for reliquefaction of cargo, only those refrigerants under §147.90 of this chapter are allowed.


§ 58.20–10 Pressure relieving devices.

(a) Each pressure vessel containing refrigerants, which may be isolated, shall be protected by a relief valve set to relieve at a pressure not exceeding the maximum allowable working pressure of the vessel. When a pressure vessel forms an integral part of a system having a relief valve, such vessel need not have an individual relief valve.

(b) Relief valves fitted on the high pressure side may discharge to the low pressure side before relieving to atmosphere. When relieving to atmosphere, a relief valve shall be fitted in the atmospheric discharge connection from the receivers and condensers. The relief valve from the receivers may relieve to the condenser which in turn may relieve either to the low side or to atmosphere. It shall be set to relieve at a pressure not greater than the maximum allowable working pressure. A rupture disk may be fitted in series with the relief valve, provided the bursting pressure of the rupture disk is not in excess of the relief valve set pressure. Where a rupture disk is fitted on the downstream side of the relief valve, the relief valve shall be of the type not affected by back pressure.

§ 58.20–15 Installation of refrigerating machinery.

(a) Where refrigerating machines are installed in which anhydrous ammonia is used as a refrigerant, such machines shall be located in a well-ventilated, isolated compartment, preferably on the deck, but in no case shall it be permissible to install such machines in the engineroom space unless the arrangement is such as to eliminate any hazard from gas escaping to the engineroom. Absorption machines using a solution of aqua ammonia and machines using carbon dioxide are exempt from this requirement, provided the maximum charges that might be released in the event of breakage do not exceed 300 pounds.

(b) Machinery compartments containing equipment for ammonia shall be fitted with a sprinkler system providing an effective water spray and having a remote control device located outside the compartment.

(c) All refrigeration compressor spaces shall be effectively ventilated.