the leakage in each branch line must not allow a pressure drop of more than 10.5 kilograms per square centimeter (150 pounds per square inch) per minute for a 2-minute period. The distribution piping must be capped within the protected space.

(d) Small independent systems protecting emergency generator rooms, lamp lockers and similar small spaces need not meet the tests prescribed in paragraphs (a) and (b) of this section if they are tested by blowing out the piping with air at a pressure of at least 7 kilograms per square centimeter (100 pounds per square inch).

§ 108.451 CO_2 storage.

(a) Except as provided in paragraph (b) of this section, each cylinder of a CO_2 system must be outside each space protected by the system and in a location that would be accessible if a fire occurred in any space protected by the system.

(b) A CO_2 system that has a CO_2 supply of 136 kilograms (300 pounds) or less may have one or more cylinders in the space protected by the system if the space has a heat detection system to activate the system automatically in addition to the remote and manual controls required by this subpart.

(c) Each space that contains cylinders of a CO_2 system must be ventilated and designed to prevent an ambient temperature of more than 54 °C. (130 °F.)

(d) Each cylinder in a CO_2 system must be securely fastened, supported, protected from damage, in an accessible location, and capable of removal from that location.

(e) Each unit must have a means for weighing cylinders of a CO_2 system.

(f) A cylinder in a CO_2 system may not be mounted in a position that is inclined more than 30° from a vertical position, except that a cylinder having flexible or bent siphon tubes may be mounted in a position that is inclined up to 80° from the vertical. The bottom of each cylinder when mounted must be at least 5 centimeters (2 inches) from the deck.

(g) If a cylinder does not have a check valve on its independent cylinder discharge, it must have a plug or cap to close the outlet when the cylinder is moved.

[CGD 73–251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 84–044, 53 FR 7749, Mar. 10, 1988]

§ 108.453 Discharge outlets.

Each discharge outlet must be of an approved type.

§ 108.455 Enclosure openings.

(a) Mechanical ventilation for spaces protected by a CO_2 system must be designed to shut down automatically when the system is activated.

(b) Each space that is protected by a CO_2 system and that has natural ventilation must have a means for closing that ventilation.

(c) Each space protected by a CO_2 system must have the following means for closing the openings to the space from outside the space:

(1) Doors, shutters, or dampers for closing each opening in the lower portion of the space.

(2) Doors, shutters, dampers or temporary means such as canvas or other material normally on board a unit may be used for closing each opening in the upper portion of the space.

§ 108.457 Pressure release.

Each air tight or vapor tight space, such as a paint locker, that is protected by a CO_2 system must have a means for releasing pressure that accumulates within the space if CO_2 is discharged into the space.

HALOGENATED GAS EXTINGUISHING SYSTEMS

§ 108.458 General.

Halogenated gas extinguishing systems may be installed if approved by the Commandant.

FOAM EXTINGUISHING SYSTEMS

§ 108.459 Number and location of outlets.

(a) A foam extinguishing system in a space must have enough outlets to spread a layer of foam of uniform thickness over the deck or bilge areas of the space.

(b) A foam extinguishing system in a space that has a boiler on a flat that is