

## Coast Guard, DHS

## § 108.441

(incorporated by reference, see §105.01–3).

(b) A cutoff valve and check valve for each connection; and

(c) Facilities available enabling the connection to be used on either side of the unit.

[CGD 73–251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 88–032, 56 FR 35826, July 29, 1991; USCG–2000–7790, 65 FR 58462, Sept. 29, 2000]

### § 108.429 Fire main system protection.

(a) Each pipe and fire hydrant in a fire main system must be installed to the extent practicable in locations that are not exposed to damage by materials that are moved on or onto the deck.

(b) Each part of the fire main system located on an exposed deck must either be protected against freezing or be fitted with cutout valves and drain valves to shut off and drain the entire exposed system in freezing weather.

#### AUTOMATIC SPRINKLING SYSTEMS

### § 108.430 General.

Automatic sprinkler systems must comply with Chapter 25 of NFPA 13 (incorporated by reference, see §108.101).

[USCG–2012–0196, 81 FR 48266, July 22, 2016]

#### FIXED CARBON DIOXIDE FIRE EXTINGUISHING SYSTEMS

### § 108.431 Carbon dioxide systems: General.

(a) Sections 108.431 through 108.457 apply to high pressure carbon dioxide fire extinguishing systems.

(b) Low pressure systems, that is, those in which the carbon dioxide is stored in liquid form at low temperature, must be approved by the Commandant.

(c) Each carbon dioxide system cylinder must be fabricated, tested, and marked in accordance with §§147.60 and 147.65 of this chapter.

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

### § 108.433 Quantity of CO<sub>2</sub>: General.

Each CO<sub>2</sub> system must have enough gas to meet the quantity requirements

of §108.439 for the space requiring the greatest amount of CO<sub>2</sub>.

### § 108.437 Pipe sizes and discharge rates for enclosed ventilation systems for rotating electrical equipment.

(a) The minimum pipe size for the initial charge must meet table 108.441 and the discharge of the required amount of CO<sub>2</sub> must be completed within 2 minutes.

(b) The minimum pipe size for the delayed discharge must be at least 1.25 centimeters (½ inch) standard pipe.

(c) The pipe used for the initial discharge must not be used for the delayed discharge, except systems having a volume of less than 57 cubic meters (2,000 cubic feet).

### § 108.439 Quantity of CO<sub>2</sub> for protection of spaces.

(a) The number of pounds of CO<sub>2</sub> required to protect a space must be equal to the gross volume of the space divided by the appropriate factor from Table 108.439.

(b) If a machinery space includes a casing, the gross volume of the space may be calculated using the reductions allowed in 46 CFR 95.10–5(e).

(c) If fuel can drain from a space to an adjacent space or if two spaces are not entirely separate, the requirements for both spaces must be used to determine the amount of CO<sub>2</sub> to be provided and the CO<sub>2</sub> system must be arranged to discharge into both spaces simultaneously.

TABLE 108.439—CO<sub>2</sub> Supply Factors

[Gross volume of space in cubic feet]

Over	Not over	Factor
0 .....	500	15
500 .....	1,600	16
1,600 .....	4,500	18
4,500 .....	50,000	20
50,000 .....		22

### § 108.441 Piping and discharge rates for CO<sub>2</sub> systems.

(a) The size of branch lines to spaces protected by a CO<sub>2</sub> system must meet Table 108.441.

(b) Distribution piping within a space must be proportioned from the supply line to give proper distribution to the outlets without throttling.