§ 167.45-40 Fire-fighting equipment on nautical school ships using oil as fuel.

Steam-propelled nautical school ships burning oil for fuel shall be fitted with the fire-fighting equipment of the following type and character:

- (a) In each boiler room and in each of the machinery spaces of a nautical school ship propelled by steam, in which a part of the fuel-oil installation is situated, 2 or more approved fire extinguishers of the foam type of not less than 9.5 liters (2½ gallons) each or 2 or more approved fire extinguishers of the carbon dioxide type of not less than 33 kilograms (15 pounds) each must be placed where accessible and ready for immediate use. On a nautical school ship of 1,000 gross tons and under, only 1 of the fire extinguishers may be required.
- (b) In boiler and machinery spaces, at least 2 fire hydrants must have a firehose of a length that allows each part of the boiler and machinery spaces to be reached by water from a combination solid stream and water spray firehose nozzle.
- (c) Each firehose under paragraph (b) of this section must have a combination solid stream and water spray firehose nozzle that meets subpart 162.027 of this chapter. Combination nozzles and low-velocity water spray applicators previously approved under subpart 162.027 of this chapter may remain so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.
- (d) On every steam propelled nautical school ship of over 1,000 gross tons having one boiler room there shall be provided one fire extinguisher of the foam type of at least 40 gallons rated capacity or one carbon dioxide (CO2) extinguisher of at least 100 pounds. If the nautical school ship has more than one boiler room, an extinguisher of the above type shall be provided in each boiler room. On every steam propelled nautical school ship of 1,000 gross tons and under, foam type fire extinguishers of at least 20 gallons rated capacity or carbon dioxide (CO2) extinguishers of at least 50 pounds shall be used. Extinguishers fitted shall be equipped with suitable hose and nozzles on reels or other practicable means easy of access,

and of sufficient length to reach any part of the boiler room and spaces containing oil-fuel pumping units.

- (e) All nautical school ships propelled by internal-combustion engines shall be equipped with the following foam type or carbon dioxide type fire extinguishers in the machinery spaces:
- (1) One approved 12-gallon foam-type extinguisher or one approved 35-pound carbon dioxide type extinguisher.
- (2) One approved 2½-gallon foamtype, or one approved 15-pound carbon dioxide type extinguisher for each 1,000 B. H. P. of the main engines, or fraction thereof. The total number of fire extinguishers carried shall not be less than two and need not exceed six.
- (3) When a donkey boiler fitted to burn oil as fuel is located in the machinery space, there shall be substituted for the 12-gallon foam type or 35-pound carbon dioxide type fire extinguisher required either one 40-gallon foam type or one 100-pound carbon dioxide type fire extinguisher.
- (f) In this section any reference to an approved fire extinguisher means either approved by the Coast Guard or the Navy.

[CGFR 51-11, 16 FR 3218, Apr. 12, 1951, as amended by CGD 76-086, 44 FR 2394, Jan. 11, 1979; CGD 95-027, 61 FR 26010, May 23, 1996]

§ 167.45–45 Carbon dioxide fire-extinguishing system requirements.

(a) When a carbon dioxide (CO₂) smothering system is fitted in the boiler room, the quantity of carbon dioxide carried shall be sufficient to give a gas saturation of 25 percent of the gross volume of the largest boiler room from tank top to top of the boilers. Top of the boilers is to be considered as the top of the shell of a Scotch or leg type of boiler, and the top of the casing or drum, whichever is the higher, on water-tube boilers. The quantity of carbon dioxide required may be determined approximately by the following formula:

$$W = \frac{L \times B \times D}{36} \tag{1}$$

where:

W=the weight of CO_2 required in pounds. L=the length of the boiler room in feet. B=the breadth of the boiler room in feet.