

§ 193.30-1

deck forming the hatch opening divided by 22.

(5) In miscellaneous spaces other than cargo or main machinery spaces the number of pounds of carbon dioxide required shall be equal to the gross volume of the space divided by 22.

(6) Branch lines to the various spaces other than cargo and similar spaces shall be as noted in Table 193.15-90(a)(6). This table is based on cylinders having discharge outlets and siphon tubes of 3/8-inch diameter.

TABLE 193.15-90(a)(6)

Number of cylinders		Nominal pipe size, inches
Over	Not over	
.....	2	1/2—standard.
2 .....	4	3/4—standard.
4 .....	6	1—extra heavy.
6 .....	12	1 1/4—extra heavy.
12 .....	16	1 1/2—extra heavy.
16 .....	27	2—extra heavy.
27 .....	39	2 1/2—extra heavy.
39 .....	60	3—extra heavy.
60 .....	80	3 1/2—extra heavy.
80 .....	104	4—extra heavy.
104 .....	165	5—extra heavy.

**Subpart 193.30—Automatic Sprinkler Systems**

§ 193.30-1 Application.

Automatic sprinkling systems shall comply with NFPA 13-1996.

[CGD 95-028, 62 FR 51220, Sept. 30, 1997]

**Subpart 193.50—Hand Portable Fire Extinguishers and Semiportable Fire Extinguishing Systems, Arrangements and Details**

§ 193.50-1 Application.

(a) The provisions of this subpart, with the exception of §193.50-90, shall apply to all vessels, including non-self-propelled vessels of less than 300 gross tons, contracted for on or after March 1, 1968.

(b) All vessels other than unmanned barges contracted for prior to March 1, 1968, shall meet the requirements of §193.50-90.

(c) All unmanned barges are exempted from the requirements in this subpart. However, if such barges carry on board hand portable fire extinguishers

and semiportable fire extinguishing systems, then such equipment shall be in accordance with this subpart for manned barges.

§ 193.50-5 Classification.

(a) Hand portable fire extinguishers and semiportable fire extinguishing systems shall be classified by a combination letter and number symbol. The letter indicating the type of fire which the unit could be expected to extinguish and the number indicating the relative size of the unit.

(b) The types of fire will be designated as follows:

(1) "A" for fires in ordinary combustible materials where the quenching and cooling effects of quantities of water, or solutions containing large percentages of water, are of first importance.

(2) "B" for fires in flammable liquids, greases, etc., where a blanketing effect is essential.

(3) "C" for fires in electrical equipment where the use of nonconducting extinguishing agent is of first importance.

(c) The number designations for size will start with "I" for the smallest to "V" for the largest. Sizes I and II are considered hand portable fire extinguishers and sizes III, IV, and V are considered semiportable fire extinguishing systems which shall be fitted with suitable hose and nozzle or other practicable means so that all portions of the space concerned may be covered. Examples of size graduations for some of the typical hand portable and semiportable fire extinguishing systems are set forth in Table 193.50-5(c).

TABLE 193.50-5(c)

Classification		Soda-acid and water, gals.	Foam, gals.	Carbon dioxide, lbs.	Dry chemical, lbs.
Type	Size				
A .....	II .....	2 1/2	2 1/2	.....	.....
B .....	I .....	.....	1 1/4	4	2
B .....	II .....	.....	2 1/2	15	10
B .....	III .....	.....	12	35	20
B .....	IV .....	.....	20	50	30
B .....	V .....	.....	40	100	50
C .....	I .....	.....	.....	4	2
C .....	II .....	.....	.....	15	10

(d) All hand portable fire extinguishers and semiportable fire extinguishing systems shall have permanently attached thereto a metallic nameplate giving the name of the item, the rated capacity in gallons, quarts, or pounds, the name and address of the person or firm for whom approved, and the identifying mark of the actual manufacturer.

(e) Vaporizing liquid type fire extinguishers containing carbon tetrachloride or chlorobromomethane or other toxic vaporizing liquids shall not be permitted.

**§ 193.50-10 Location.**

(a) Approved hand portable fire extinguishers and semiportable fire extinguishing systems shall be installed in

accordance with Table 193.50-10(a). The location of the equipment shall be to the satisfaction of the Officer in Charge, Marine Inspection. Nothing in this paragraph shall be construed as limiting the Officer in Charge, Marine Inspection, from requiring such additional equipment as he deems necessary for the proper protection of the vessel.

(b) Semiportable fire extinguishing systems shall be located in the open so as to be readily seen.

(c) If hand portable fire extinguishers are not located in the open or behind glass so that they may be readily seen, they may be placed in enclosures together with the firehose, provided such enclosures are marked as required by § 196.37-15 of this subchapter.

TABLE 193.50-10(a)—HAND PORTABLE FIRE EXTINGUISHER AND SEMI-PORTABLE FIRE EXTINGUISHING SYSTEMS

Space	Classification (see § 193.50-5)	Quantity and location
<i>Safety Areas<sup>1</sup></i>		
Wheelhouse or fire control room .....	.....	None required.
Stairway and elevator enclosures .....	.....	Do.
Communicating corridors .....	A-II .....	1 in each main corridor not more than 150 feet apart. (May be located in stairways.)
Lifeboat embarkation and lowering stations .....	.....	None required.
Radio room .....	C-I <sup>2</sup> .....	2 in vicinity of exit. <sup>2</sup>
<i>Accommodations<sup>1</sup></i>		
Staterooms, toilet spaces, public spaces, offices, lockers, isolated storerooms, and pantries open decks, etc. ....	.....	None required.
<i>Service spaces</i>		
Galleys .....	B-II or C-II .....	1 for each 2,500 square feet or fraction thereof suitable for hazards involved.
<i>Machinery spaces</i>		
Paint and lamp rooms .....	B-II .....	1 outside space in vicinity of exit.
Accessible baggage, mail, and specie rooms, and storerooms. ....	A-II .....	1 for each 2,500 square feet or fraction thereof located in vicinity of exits, either inside or outside the spaces.
Carpenter shop and similar spaces .....	A-II .....	1 outside the space in vicinity of exit.
Coal-fired boilers: Bunker and boiler space .....	.....	None required.
Oil-fired boilers: Spaces containing oil-fired boilers, either main or auxiliary, or their fuel-oil units. ....	B-II .....	2 required. <sup>3</sup>
.....	B-V .....	1 required. <sup>4</sup>
Internal combustion or gas turbine propelling machinery spaces. ....	B-II .....	1 for each 1,000 brake horsepower, but not less than 2 nor more than 6. <sup>5</sup>
.....	B-III .....	1 required. <sup>6,7</sup>
Electric propulsive motors or generators of open type. ....	C-II .....	1 for each propulsion motor or generator unit.
Enclosed ventilating systems for motors and generators of electric propelling machinery. ....	.....	None required.
Auxiliary spaces:		
Internal combustion gas turbine .....	B-II .....	1 outside the space in vicinity of exit. <sup>7</sup>
Electric emergency motors or generators ..	C-II .....	1 outside the space in vicinity of exit. <sup>8</sup>
Steam .....	.....	None required.
Trunks to machinery spaces .....	.....	Do.
Fuel tanks .....	.....	Do.