

(1) Existing arrangements, materials, and facilities previously approved shall be considered satisfactory so long as they meet the minimum requirements of this paragraph and they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs and alterations may be made to the same standards as the original installation.

(2) The details of the systems shall be in general agreement with §§76.17-5 through 76.17-20, with the exception of §76.17-5(a)(2), insofar as is reasonable and practicable. A 6-inch blanket of foam in 5 minutes for tanks and 3 minutes for other spaces will be considered as meeting the requirements of §76.17-5.

(b) [Reserved]

**Subpart 76.23—Manual Sprinkling System, Details**

**§ 76.23-1 Application.**

(a) Where a manual sprinkling system is installed, the provisions of this subpart, with the exception of §76.23-90, shall apply to all installations contracted for on or after November 19, 1952. Installations contracted for prior to November 19, 1952, shall meet the requirements of §76.23-90.

(b) [Reserved]

**§ 76.23-5 Zoning.**

(a) Separate zones may be used for each deck, and on any particular deck, spaces separated by "A" or "B" Class bulkheads may be separately zoned.

(b) On any particular deck, large common areas may be zoned in accordance with table 76.23-5(b). All such zones within one common area shall be of approximately the same size. Zones of this type shall overlap in such a manner that the end sprinkler heads of both adjoining zones will cover the identical area.

TABLE 76.23-5(b)

Square feet of common deck area		Maximum number of zones
Over	Not over	
.....	800	1
800 .....	1,800	2
1,800 .....	3,000	3
3,000 .....	5,000	4
5,000 .....	9,000	5
9,000 .....	16,000	6

TABLE 76.23-5(b)—Continued

Square feet of common deck area		Maximum number of zones
Over	Not over	
16,000 .....	30,000	7
30,000 .....	.....	8

**§ 76.23-10 Quantity, pipe sizes, and discharge rates.**

(a) *General.* (1) The system shall be so designed and arranged that the overhead is effectively sprayed and all portions of the deck are covered. The capacity shall be such that at least 12 gallons of water per minute are applied to each 100 square feet of deck area.

(2) Piping, fittings, sprinkler heads, and pumps installed in accordance with the remainder of this section will be considered as meeting the above requirements. If alternate sizes or arrangements are used, it shall be demonstrated that these minimum requirements have been met.

(b) *Sprinkler heads.* (1) Three-eighth inch open type sprinkler heads shall be used. Sprinkler heads shall be so arranged that no portion of the overhead is more than 7 feet from a sprinkler head.

(2) [Reserved]

(c) *Pipe sizes.* (1) The various pipe sizes shall be in proportion to the number of heads served. Minimum pipe sizes shall be as given in table 76.23-10(c).

TABLE 76.23-10(c)

Number of 3/8 inch heads served		Minimum nominal pipe sizes, inches
Over	Not over	
.....	1	3/4
1 .....	2	1
2 .....	4	1 1/4
4 .....	6	1 1/2
6 .....	12	2
12 .....	18	2 1/2
18 .....	30	3
30 .....	46	3 1/2
46 .....	66	4
66 .....	120	5

(d) *Fire pumps.* (1) The fire pumps may be used for the sprinkling system provided there is sufficient total capacity to operate the largest zone of the sprinkling system with a Pitot tube pressure of at least 15 p.s.i. at all heads and at the same time to deliver water

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from the two highest fire hose outlets in a manner similar to that described in § 76.10–5(c). In addition, on vessels over 750 gross tons, there shall be sufficient pumping capacity to also operate the second largest zone.

### § 76.23–15 Controls.

(a) The controls for the system shall be outside the spaces protected, and shall not be located in such space as might be cut off or made inaccessible in the event of fire in any of the spaces protected. The control space shall be marked as required by § 78.47–18 of this subchapter. It shall not be necessary to start the pumps from the control space.

(b) Distribution piping to the various zones shall be controlled from one station. Each branch line to the various zones shall be fitted with a stop valve which shall be marked as required by § 78.47–15 of this subchapter.

[CGFR 65–50, 30 FR 16940, Dec. 30, 1965, as amended by USCG–2004–18884, 69 FR 58347, Sept. 30, 2004]

### § 76.23–20 Piping.

(a) All piping, valves, and fittings shall meet the applicable requirements of subchapter F (Marine Engineering) of this chapter.

(b) All piping, valves, and fittings of ferrous materials shall be protected inside and outside against corrosion unless specifically approved by the Commandant.

(c) All piping, valves, fittings, and sprinkler heads shall be securely supported, and where necessary, protected against injury.

(d) Drains and dirt traps shall be fitted where necessary to prevent the accumulation of dirt or moisture.

(e) Piping shall be used for no other purpose.

### § 76.23–25 Sprinkler heads.

(a) Sprinkler heads shall be of an approved type.

(b) [Reserved]

### § 76.23–90 Installations contracted for prior to November 19, 1952.

(a) Installations contracted for prior to November 19, 1952, shall meet the following requirements:

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(1) Existing arrangements, materials, and facilities previously approved shall be considered satisfactory so long as they meet the minimum requirements of this paragraph and they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection. Minor repairs and replacements may be made to the same standards as the original installation.

(2) The details of the system shall be in general agreement with §§ 76.23–5 through 76.23–25 insofar as is reasonable and practicable. Existing piping, pumping facilities, and sprinkler heads or perforated pipes may be retained provided all portions of the overhead are effectively sprayed and all portions of the deck are covered.

(b) [Reserved]

## Subpart 76.25—Automatic Sprinkling System, Details

### § 76.25–1 Application.

Where an automatic sprinkling system is installed, the systems must comply with NFPA 13 (incorporated by reference; see 46 CFR 76.01–2).

[USCG–2003–16630, 73 FR 65192, Oct. 31, 2008]

### § 76.25–5 Zoning.

(a) The automatic sprinkling system shall be divided into separate zones to restrict the area covered by any particular alarm signal.

(b) No sprinkling zone shall contain more than 250 sprinkler heads.

(c) The sprinkling zone may cover more than one deck, in which case, the boundaries shall be maintained in a vertical line insofar as is reasonable and practicable. The boundaries of the zone shall be coincident with bulkheads of Class “A” construction such as main vertical zone or watertight bulkheads.

(d) Spaces in different main vertical zones shall not be included in the same sprinkling zone.

### § 76.25–10 Size and arrangement of sprinkler heads and pipe sizes.

(a) *General.* (1) The system shall be so designed and arranged that the overhead is effectively sprayed and that all portions of the deck are covered.