§ 154.1125

(1) Explosion-proof lighting fixtures; and
(2) Through runs of cable.

(i) A space that has cargo piping may only have:
(1) Explosion-proof lighting fixtures; and
(2) Through runs of cable.

(j) A gas-dangerous zone on the weather deck may only have:

(1) Explosion-proof equipment that is for the operation of the vessel; and
(2) Through runs of cable.

(k) A space, except those under paragraphs (e) through (j) of this section, that has a direct opening to a gas-dangerous space or zone may only have the electrical equipment allowed in the gas-dangerous space or zone.

§ 154.1015 Lighting in gas-dangerous space.

(a) Each gas-dangerous space that has lighting fixtures must have at least two branch circuits for lighting.

(b) Each switch and each overcurrent protective device for any lighting circuit that is in a gas-dangerous space or zone may only have the electrical equipment allowed in the gas-dangerous space or zone.

§ 154.1020 Emergency power.

The emergency generator must be designed to allow operation at the final angle of heel under § 154.230(a).

§ 154.1115 Discharge.

(a) The discharge density of each water spray system must be at least:

(1) 10000 cm³/m²/min. (0.25 gpm/ft.²) over each horizontal surface; and
(2) 4000 cm³/m²/min. (0.10 gpm/ft.²) against vertical surface, including the water rundown.

(b) The water spray protection under § 154.1110 (d) and (e) must cover an area in a horizontal plane extending at least 0.5 m (19 in.) in each direction from the pipes, fittings, and valves, or the area of the drip tray, whichever is greater.

§ 154.1120 Nozzles.

(a) Nozzles for the water spray system must be spaced to provide the minimum discharge density under § 154.1115 in each part of the protected area.

(b) The vertical distance between water spray nozzles for the protection of vertical surfaces must be 3.7 m (12 ft.) or less.

§ 154.1125 Pipes, fittings, and valves.

(a) Each pipe, fitting, and valve for each water spray system must meet Part 56 of this chapter.

(b) Each water spray main that protects more than one area listed in § 154.1110 must have at least one isolation valve at each branch connection.
§ 154.1130  Sections.
   (a) If a water spray system is divided into sections, each section must at least include the entire deck area bounded by the length of a cargo tank and the full beam of the vessel.
   (b) If a water spray system is divided into sections, the control valves must be at a single manifold that is aft of the cargo area.

§ 154.1135  Pumps.
   (a) Water to the water spray system must be supplied by:
       (1) A pump that is only for the use of the system;
       (2) A fire pump; or
       (3) A pump specially approved by the Commandant (CG–522).
   (b) Operation of a water spray system must not interfere with simultaneous operation of the fire main system at its required capacity. There must be a valved cross-connection between the two systems.
   (c) Except as allowed under paragraph (d) of this section, each pump for each water spray system must have the capacity to simultaneously supply all areas named in §154.1110.
   (d) If the water spray system is divided into sections, the pump under paragraph (a) of this section must have the capacity to simultaneously supply the required discharge density under §154.1115(a) for:
       (1) The areas in §§154.1110(f) through (h) and 154.1115(b); and
       (2) The largest section that includes the required protection under §154.1110 (a), (b), and (c).


Firefighting System: Dry Chemical

§ 154.1140  Dry chemical system: General.
   Each liquefied flammable gas carrier must have a dry chemical firefighting system that meets §§154.1145 through 154.1170, Part 56 and Subpart 162.039 of this chapter.

§ 154.1145  Dry chemical supply.
   (a) A vessel with a cargo carrying capacity less than 1000 m³ (35,300 ft.³) must have at least one self-contained dry chemical storage unit for the cargo area with an independent inert gas pressurizing source adjacent to each unit.
   (b) A vessel with a cargo carrying capacity of 1000 m³ (35,300 ft.³) or more must have at least two self-contained dry chemical storage units for the cargo area with an independent inert gas pressurizing source adjacent to each unit.
   (c) A vessel with bow and stern loading and discharge areas must have at least one self-contained dry chemical storage unit with an independent inert gas pressurizing source adjacent to each area.
   (d) Each dry chemical storage unit and associated piping must be designed for:
       (1) Sequential discharge of each hose line and each monitor for 45 seconds; and
       (2) Simultaneous discharge of all hose lines and monitors for 45 seconds.
   (e) Each fully charged dry chemical storage unit must have the greater of the following:
       (1) Enough dry chemical to provide for sequential discharge of each attached hose and monitor for 45 seconds.
       (2) Enough dry chemical to provide for simultaneous discharge of all attached hoses and monitors for 45 seconds.