

§ 127.1107

33 CFR Ch. I (7-1-04 Edition)

§ 127.1107 Electrical systems.

Electrical equipment and wiring must be of the kind specified by, and must be installed in accordance with, NFPA 70.

§ 127.1109 Lighting systems.

(a) Each waterfront facility handling LHG, at which transfers of LHG take place between sunset and sunrise, must have outdoor lighting that illuminates the marine transfer area for LHG.

(b) All outdoor lighting must be located or shielded so that it cannot be mistaken for any aids to navigation and does not interfere with navigation on the adjacent waterways.

(c) The outdoor lighting must provide a minimum average illumination on a horizontal plane 1 meter (3.3 feet) above the walking surface of the marine transfer area that is—

(1) 54 lux (5 foot-candles) at any loading flange; and

(2) 11 lux (1 foot-candle) for the remainder of the marine transfer area for LHG.

§ 127.1111 Communication systems.

(a) The marine transfer area for LHG must possess a communication system that enables continuous two way voice communication between the person in charge of transfer aboard the vessel and the person in charge of transfer for the facility.

(b) The communication system required by paragraph (a) of this section may consist either of fixed or portable telephones or of portable radios. The system must be usable and effective in all phases of the transfer and all weather at the facility.

(c) Devices used to comply with paragraph (a) of this section during the transfer of a flammable LHG must be listed as intrinsically safe by Underwriters Laboratories, Inc., Factory Mutual Research Corporation, or other independent laboratory recognized by NFPA, for use in the hazardous location in which it is used.

§ 127.1113 Warning signs.

(a) The marine transfer area for LHG must have warning signs that—

(1) Meet paragraph (b) of this section;

(2) Can be seen from the shore and the water; and,

(3) Except as provided in paragraph (c) of this section, bear the following text:

Warning
Dangerous Cargo
No visitors
No Smoking
No Open Lights

(b) Each letter on the sign must be—

(1) In block style;

(2) Black on a white background; and

(3) At least 7.6 centimeters (3 inches) high.

(c) The words “No Smoking” and “No Open Lights” may be omitted when the product being transferred is not flammable.

EQUIPMENT

§ 127.1203 Gas detection.

(a) Each waterfront facility handling LHG that transfers a flammable LHG must have at least two portable gas detectors, or a fixed gas detector, in the marine transfer area for LHG. Each detector must be capable of indicating whether the concentration of flammable vapors exceeds 30% of the Lower Flammable Limit for each flammable product being transferred and must meet ANSI S12.13, Part I.

(b) Each waterfront facility handling LHG that transfers a toxic LHG, other than anhydrous ammonia, must have at least two portable gas detectors, or a fixed gas detector, available in the area. The detectors must be capable of showing whether the concentration of each toxic LHG being transferred is above, at, or below any Permissible Exposure Limit listed in 29 CFR 1910.1000, Table Z-1 or Z-2.

(c) Each gas detector required by paragraph (a) or (b) of this section must serve to detect leaks, check structures for gas accumulations, and indicate workers' exposure to toxic gases in the area.

[CGD 88-049, 60 FR 39797, Aug. 3, 1995; 60 FR 49509, Sept. 26, 1995]

§ 127.1205 Emergency shutdown.

(a) Each piping system used to transfer LHG or its vapors to or from a vessel must have a quick-closing shutoff valve to stop the flow of liquid and vapor from the waterfront facility handling LHG if a transfer hose or loading

arm fails. This valve may be the isolation valve with a bleed connection required by § 127.1101(c).

(b) The valve required by paragraph (a) of this section must be located as near as practicable to the terminal manifold or loading-arm connection and must—

- (1) Close on loss of power;
- (2) Close from the time of activation in 30 seconds or less;
- (3) Be capable of local manual closing and remotely controlled closing; and,
- (4) If the piping system is used to transfer a flammable LHG, either have fusible elements that melt at less than 105 °C (221 °F) and activate the emergency shutdown, or have a sensor that performs the same function.

(c) A remote actuator for each valve must be located in a place accessible in an emergency, at least 15 meters (49.2 feet) from the terminal manifold or loading arm, and conspicuously marked with its designated function. When activated, the actuator must also automatically shut down any terminal pumps or compressors used to transfer LHG, or its vapors, to or from the vessel.

[CGD 88-049, 60 FR 39797, Aug. 3, 1995; 60 FR 49509, Sept. 26, 1995]

§ 127.1207 Warning alarms.

(a) Each marine transfer area for LHG must have a rotating or flashing amber light that is visible for at least 1,600 meters (1 mile) from the transfer connection in all directions.

(b) Each marine transfer area for LHG must also have a siren that is audible for at least 1,600 meters (1 mile) from the transfer connection in all directions.

(c) Each light and siren required by this section must be located so as to minimize obstructions. If any obstruction will prevent any of these alarms from meeting paragraph (a) or (b) of this section, the operator of the waterfront facility handling LHG shall propose for approval by the local COTP additional or alternative warning devices that provide an equivalent level of safety.

[CGD 88-049, 60 FR 39798, Aug. 3, 1995; 60 FR 49509, Sept. 26, 1995]

§ 127.1209 Respiratory protection.

Each waterfront facility handling LHG must provide equipment for respiratory protection for each employee of the facility in the marine transfer area for LHG during the transfer of one or more of the following toxic LHGs; anhydrous ammonia, chlorine, dimethylamine, ethylene oxide, methyl bromide, sulphur dioxide, or vinyl chloride. The equipment must protect the wearer from the LHG's vapor for at least 5 minutes.

OPERATIONS

§ 127.1301 Persons in charge of transfers for the facility: Qualifications and certification.

(a) No person may serve, or use the services of any person, as a person in charge of transfers for the facility regulated under this subpart, unless that person—

- (1) Has at least 48 hours' transfer experience with each LHG being transferred;
- (2) Knows the hazards of each LHG being transferred;
- (3) Knows the rules of this subpart; and
- (4) Knows the procedures in the examined Operations Manual and the examined Emergency Manual.

(b) Before a person in charge of transfers for a waterfront facility handling LHG supervises a transfer of LHG, the operator of the facility shall certify in writing that that person has met the requirements in paragraph (a) of this section. The operator shall ensure that a copy of each current certification is available for inspection at the facility.

[CGD 88-049, 60 FR 39798, Aug. 3, 1995; 60 FR 49509, Sept. 26, 1995]

§ 127.1302 Training.

(a) Each operator of a waterfront facility handling LHG shall ensure that each person assigned to act as a person in charge of transfers for the facility has training in the following subjects:

- (1) Properties and hazards of each LHG being transferred to or from the facility.
- (2) Use of the gas detectors required by § 127.1203.