

(b) The water removal system must have adequate capacity to remove water at a rate equal to 25% of the maximum predictable collection rate from a storm of 10-year frequency and 1-hour duration, and other natural causes. For rainfall amounts, operators must use the “Rainfall Frequency Atlas of the United States” published by the National Weather Service of the U.S. Department of Commerce.

(c) Sump pumps for water removal must—

(1) Be operated as necessary to keep the impounding space as dry as practical; and

(2) If sump pumps are designed for automatic operation, have redundant automatic shutdown controls to prevent operation when LNG is present.

[45 FR 9203, Feb. 11, 1980, as amended by Amdt. 193-17, 65 FR 10959, Mar. 1, 2000]

§§ 193.2175–193.2179 [Reserved]

§ 193.2181 Impoundment capacity: LNG storage tanks.

Each impounding system serving an LNG storage tank must have a minimum volumetric liquid impoundment capacity of:

(a) 110 percent of the LNG tank’s maximum liquid capacity for an impoundment serving a single tank;

(b) 100 percent of all tanks or 110 percent of the largest tank’s maximum liquid capacity, whichever is greater, for the impoundment serving more than one tank; or

(c) If the dike is designed to account for a surge in the event of catastrophic failure, then the impoundment capacity may be reduced to 100 percent in lieu of 110 percent.

[Amdt. 193-17, 65 FR 10960, Mar. 1, 2000]

§§ 193.2183–193.2185 [Reserved]

LNG STORAGE TANKS

§ 193.2187 Nonmetallic membrane liner.

A flammable nonmetallic membrane liner may not be used as an inner container in a storage tank.

[Amdt. 193-17, 65 FR 10960, Mar. 1, 2000]

§§ 193.2189–193.2233 [Reserved]

Subpart D—Construction

§ 193.2301 Scope.

Each LNG facility constructed after March 31, 2000 must comply with requirements of this part and of NFPA 59A (incorporated by reference *see* §193.2013). In the event of a conflict between this part and NFPA 59A, this part prevails.

[Amdt. 193-17, 65 FR 10960, Mar. 1, 2000, as amended by Amdt. 193-18, 69 FR 11336, Mar. 10, 2004]

§ 193.2303 Construction acceptance.

No person may place in service any component until it passes all applicable inspections and tests prescribed by this subpart and NFPA 59A (incorporated by reference, *see* §193.2013).

[45 FR 9203, Feb. 11, 1980, as amended by Amdt. 193-17, 65 FR 10960, Mar. 1, 2000; Amdt. 193-18, 69 FR 11337, Mar. 10, 2004]

§ 193.2304 Corrosion control overview.

(a) Subject to paragraph (b) of this section, components may not be constructed, repaired, replaced, or significantly altered until a person qualified under §193.2707(c) reviews the applicable design drawings and materials specifications from a corrosion control viewpoint and determines that the materials involved will not impair the safety or reliability of the component or any associated components.

(b) The repair, replacement, or significant alteration of components must be reviewed only if the action to be taken—

(1) Involves a change in the original materials specified;

(2) Is due to a failure caused by corrosion; or

(3) Is occasioned by inspection revealing a significant deterioration of the component due to corrosion.

[Amdt. 193-2, 45 FR 70404, Oct. 23, 1980]

§§ 193.2305–193.2319 [Reserved]

§ 193.2321 Nondestructive tests.

(a) The butt welds in metal shells of storage tanks with internal design pressure above 15 psig must be non-destructively examined in accordance