

NFPA®

307

Standard for the
Construction and Fire Protection
of Marine Terminals, Piers,
and Wharves

2021



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NFPA® 307**Standard for the****Construction and Fire Protection of Marine Terminals, Piers, and Wharves****2021 Edition**

This edition of NFPA 307, *Standard for the Construction and Fire Protection of Marine Terminals, Piers, and Wharves*, was prepared by the Technical Committee on Marine Terminals. It was issued by the Standards Council on October 11, 2019, with an effective date of October 31, 2019, and supersedes all previous editions.

This edition of NFPA 307 was approved as an American National Standard on October 31, 2019.

Origin and Development of NFPA 307

This document originated in 1980 from the combination of the 1967 edition of NFPA 307, *Recommendations for the Operation of Marine Terminals*, and the 1975 edition of NFPA 87, *Standard for the Construction and Protection of Piers and Wharves*.

NFPA 87 was withdrawn by the Standards Council in October 1980, and the 1980 edition of NFPA 307 was retitled *Standard for the Construction and Fire Protection of Marine Terminals, Piers, and Wharves*.

NFPA 87 was first initiated by the Committee on Piers and Wharves from 1915 to 1925, and was adopted by NFPA in 1925. Revised editions were adopted in 1931, 1935, 1954, 1963, 1968, 1971, and 1975.

NFPA 307 was first adopted by NFPA in 1951. Revised editions were adopted in 1961, 1967, 1980 (when NFPA 87 was incorporated), 1985, 1990, and 1995.

The 2000 edition of NFPA 307 consisted of amendments to the 1995 edition. The Technical Committee identified a need for the standard to reflect current marine terminal operating procedures and updated methods of material handling and storage.

In 2005, the entire standard was revised in accordance with the *Manual of Style for NFPA Technical Committee Documents*. Under design criteria for sprinkler systems, the Technical Committee changed “Extra Hazard (Group 1)” to “Group A Plastics.” The committee amended fire protection requirements for marine terminal buildings where specific cargoes other than Group A plastics, or hazardous materials, are handled or stored.

The 2011 edition revised the definition of *hazardous material* and the requirements for wood and unprotected substructures and for piles and stiffening members of piers and wharves. The standard permitted the use of corrosion-resistant types of pipes, fitting, hangers, or listed protective corrosion resistant coatings on fixed extinguishing system components that are subject to corrosion in a marine environment. The standard also recommended consideration of alternative hydrant spacing in locations where standard spacing is impractical due to container-handling equipment.

In the 2016 edition, the Technical Committee referenced *NFPA 5000, Building Construction and Safety Code*, wherever possible, particularly for requirements related to the design, materials, and workmanship of pier and wharf construction and other structures within the facility. However, the standard lets the AHJ consider other codes or standards when approving marine terminal construction plans. Previous editions of the standard only addressed cargo-handling facilities. The 2016 edition also included construction requirements that apply to marine terminals designed for passenger vessels.

During the first draft meeting for the 2021 edition, the committee heard a presentation from the U.S. Coast Guard that emphasized a need to increase awareness throughout the public sector and private industry about federal requirements that pertain to firefighting on commercial vessels in U.S. ports. The committee developed a new annex to inform municipal and industrial firefighters about marine firefighting (MFF) requirements that vessel owners or operators (plan holders) must meet in

their respective vessel response plans (VRPs). The intent of the new annex is to familiarize municipal and industrial firefighters on plan holder actions in the event of fire onboard commercial vessels at marine terminals, piers, and wharves. The annex also provides details on specific responsibilities of plan holders and their contracted MFF service providers.

The 2021 edition also directs users to NFPA 14, *Standard for the Installation of Standpipe and Hose Systems*, for requirements relating to standpipes and hose systems for marine terminals. NFPA 307 now requires that fire protection water supplies be inspected, tested, and maintained in accordance with NFPA 25, *Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems*, to ensure that water supply systems are operational when needed in the event of a fire or other emergency.

Because marine terminal structures have specific fire safety challenges, a fire risk assessment should be performed in the design phase of construction. The 2021 edition now provides a list of resources to facilitate this assessment process.