

NFPA[®]

302

Fire Protection Standard for Pleasure and Commercial Motor Craft

2020



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NFPA® 302

Fire Protection Standard for

Pleasure and Commercial Motor Craft

2020 Edition

This edition of NFPA 302, *Fire Protection Standard for Pleasure and Commercial Motor Craft*, was prepared by the Technical Committee on Motor Craft and acted on by NFPA at its June Association Technical Meeting held June 17–20, 2019, in San Antonio, TX. It was issued by the Standards Council on August 5, 2019, with an effective date of August 25, 2019, and supersedes all previous editions.

This edition of NFPA 302 was approved as an American National Standard on August 25, 2019.

Origin and Development of NFPA 302

This *Fire Protection Standard for Pleasure and Commercial Motor Craft* represents the cumulative result of over 75 years of attention to fire safety of boats by the NFPA. The first edition of this standard was adopted by the association in 1937. Successive editions were adopted in 1939, 1948, 1950, 1951, 1952, 1953, 1954, 1955, 1957, 1960, 1964, 1966, 1968, 1972, 1980, 1984, 1989, 1994, and 1998. Prior to 1937, the information was contained in Appendix D of NFPA 301, *Fire Prevention Regulations for the Construction and Maintenance of Vessels*.

The 2004 edition of NFPA 302 contained a first-time requirement in the industry for smoke detectors on pleasure boats. The chapters on fire protection equipment and electrical systems were updated based on the latest technologies. NFPA 302 was completely revised for the 2004 edition to comply with the latest edition of the *Manual of Style for NFPA Technical Committee Documents*.

The 2010 edition included provisions for the mitigation of carbon monoxide hazards that include, but are not limited to, revised ventilation requirements and installation of carbon monoxide detection devices on certain vessels. New requirements addressing the fire hazard of portable heaters and dehumidifiers were added. Requirements that address electrical systems were updated. The 2010 edition offered guidance information for the installation of fire detection equipment in the engine rooms of commercial vessels that are 12 meters or more in length.

Following the withdrawal of NFPA 255, *Standard Method of Test of Surface Burning Characteristics of Building Materials*, the Technical Committee on Motor Craft incorporated ASTM E84, *Standard Test Method for Surface Burning Characteristics of Building Materials*, into the 2015 edition of NFPA 302 as the primary test method to be used for assessing the flame spread index. The 2015 edition of the standard introduced a requirement to limit, as far as practicable, the number of elbows and other restrictions in the exhaust systems of gasoline-fueled engines to help minimize the production of carbon monoxide (CO). The standard also identified the test method to be used for determining the flame resistance properties of fabrics used in the construction of motor craft in accordance with NFPA 701, *Standard Methods of Fire Tests for Flame Propagation of Textiles and Films*. The provisions in Chapter 10 of NFPA 780, *Standard for the Installation of Lightning Protection Systems*, to protect boats from lightning were referenced by NFPA 302. Annex E, *Extinguisher Inspection and Maintenance Information from NFPA Standards*, was updated with extracts from NFPA 10, *Standard for Portable Fire Extinguishers*; NFPA 12, *Standard on Carbon Dioxide Extinguishing Systems*; NFPA 12A, *Standard on Halon 1301 Fire Extinguishing Systems*; and NFPA 2001, *Standard on Clean Agent Fire Extinguishing Systems*.

The 2020 edition includes revisions to the requirements for electrical systems and equipment, fuel systems, carbon monoxide detection equipment, and fire extinguishers and fire protection equipment for towing vessels under 300 gross tons. Due to the increasing popularity of lithium-ion-battery-powered equipment use in and on recreational watercraft, a requirement pertaining to the use of engine-starting and general power distribution lithium-ion batteries was added to the standard to prevent battery failure, thermal runaway, and catastrophic fire. New requirements for the installation of fuses and the use of ferrule connectors have been added to prevent fires caused by

overheating of such devices. Requirements to address hazards associated with 480-volt electrical distribution systems, which are becoming commonplace on larger recreational watercraft and work boats, have also been added.

The requirement for the installation of carbon monoxide (CO) detectors within the accommodation compartment of a vessel has been changed to apply to all boats. The standard also now addresses the need to maintain and replace CO detectors in accordance with the detector manufacturer's instructions.

The Technical Committee on Motor Craft revised the definitions and requirements pertaining to portable fire extinguishers. The requirements now match those found in NFPA 10, *Standard for Portable Fire Extinguishers*. Because NFPA 302 is applicable to towing vessels under 300 gross tons, the standard was revised to direct the user to fire protection requirements in Code of Federal Regulations, Subchapter M, "Towing Vessels."

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Committee Scope: This Committee shall have primary responsibility for documents on fire prevention and protection of motor craft and to encourage their use by designers, builders, and owners.

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