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NFPA 10
Standard for
Portable Fire Extinguishers
2002 Edition

This edition of NFPA 10, *Standard for Portable Fire Extinguishers*, was prepared by the Technical Committee on Portable Fire Extinguishers and acted on by NFPA at its May Association Technical Meeting held May 19–23, 2002, in Minneapolis, MN. It was issued by the Standards Council on July 19, 2002, with an effective date of August 8, 2002, and supersedes all previous editions.

This edition of NFPA 10 was approved as an American National Standard on July 19, 2002.

Origin and Development of NFPA 10

In 1918 and 1919, the NFPA Committee on Field Practice (predecessor of the present committee) was active in developing a standard on first aid protection. The earliest official NFPA standard on this subject was adopted in 1921. Revised editions were adopted by the Association in 1926, 1928, 1929, 1930, 1931, 1932, 1936, 1938, 1942, 1945, 1950, 1953, 1955, 1956, 1957, 1958, 1959, 1961, 1962, 1963, 1965, 1966, 1967, 1968, 1969, 1970, 1972, 1973, 1974, 1975, 1978, and 1981. In 1965, the previous editions were divided into two separate texts, one covering installation and the second covering maintenance and use. The 1974 edition recombined all the information previously contained in NFPA 10 and NFPA 10A. A new appendix was added to the 1974 edition to include information about the selection of fire extinguishers for home hazards. Information on selection and distribution of fire extinguishers was added to the appendix of the 1978 edition. Major revisions to provide simplification and uniformity were made in the 1984 edition. The standard was revised in 1988, 1990, and 1994.

In 1998, NFPA 10R, *Recommended Practice for Portable Fire Extinguishing Equipment in Family Dwelling Units and Living Units*, was withdrawn. Information on this topic was included in a separate appendix in that document.

This standard was revised for 2002.

6.3.2.1 Internal examination during annual maintenance shall not be required for nonrechargeable fire extinguishers, carbon dioxide fire extinguishers, or stored-pressure fire extinguishers, except for those types specified in 6.3.1.1. These fire extinguishers shall be thoroughly examined externally in accordance with the applicable items of 6.3.2(1).

6.3.2.2 **Seals or Tamper Indicators.** At the time of the maintenance, the tamper seal of rechargeable fire extinguishers shall be removed by operating the pull pin or locking device. After the applicable maintenance procedures are completed, a new tamper seal shall be installed.

6.3.2.3* Boots, Foot Rings, and Attachments. All removable extinguisher boots, foot rings, and attachments shall be removed to accommodate thorough annual cylinder examinations.

6.3.3* Six-Year Maintenance. Every 6 years, stored-pressure fire extinguishers that require a 12-year hydrostatic test shall be emptied and subjected to the applicable maintenance procedures. The removal of agent from halon agent fire extinguishers shall only be done using a listed halon closed recovery system. When the applicable maintenance procedures are performed during periodic recharging or hydrostatic testing, the 6-year requirement shall begin from that date.

6.3.3.1 Nonrechargeable fire extinguishers shall not be hydrostatically tested but shall be removed from service at a maximum interval of 12 years from the date of manufacture. Nonrechargeable halon agent fire extinguishers shall be disposed of in accordance with 6.2.3.3.

6.3.4* Maintenance Recordkeeping. Each fire extinguisher shall have a tag or label securely attached that indicates the month and year the maintenance was performed and that identifies the person performing the service.

6.3.4.1* Fire extinguishers that pass the applicable 6-year requirement of 6.3.3 shall have the maintenance information recorded on a suitable metallic label or equally durable material having a minimum size of 2 in. × 3½ in. (5.1 cm × 8.9 cm). The new label shall be affixed to the shell by a heatless process, and any old maintenance labels shall be removed. These labels shall be of the self-destructive type when removal from a fire extinguisher is attempted. The label shall include the following information:

- (1) Month and year the maintenance was performed, indicated by a perforation such as is done by a hand punch
- (2) Name or initials of the person performing the maintenance and name of the agency performing the maintenance

6.3.4.2* Verification of Service (Maintenance or Recharging). Each extinguisher that has undergone maintenance that includes internal examination or that has been recharged (*see* 6.4.5) shall have a "Verification of Service" collar located around the neck of the container. The collar shall contain a single circular piece of uninterrupted material forming a hole of a size that will not permit the collar assembly to move over the neck of the container unless the valve is completely removed. The collar shall not interfere with the operation of the fire extinguisher. The "Verification of Service" collar shall include the month and year the service was performed, indicated by a perforation such as is done by a hand punch.

6.3.4.2.1 Fire extinguishers undergoing maintenance before January 1, 1999, shall not be required to comply with 6.3.4.2.

6.3.4.2.2 Cartridge/cylinder-operated fire extinguishers shall not be required to comply with 6.3.4.2.

6.3.4.2.3 New extinguishers requiring an initial charge in the field (such as pressurized water extinguishers, AFFF, FFFP, or wet chemical) shall not be required to have a "Verification of Service" collar installed.

6.4 Recharging.

6.4.1* General.

6.4.1.1 All rechargeable-type fire extinguishers shall be recharged after any use or as indicated by an inspection or when performing maintenance.

6.4.1.2* When performing the recharging, the recommendations of the manufacturer shall be followed. (*For recharge chemicals, see 6.4.3.1.*)

6.4.1.3* The amount of recharge agent shall be verified by weighing. The recharged gross weight shall be the same as the gross weight that is marked on the label. For those fire extinguishers that do not have the gross weight marked on the label, a permanent label that indicates the gross weight shall be affixed to the cylinder. The label containing the gross weight shall be a durable material of a pressure-sensitive, self-destruct type.

6.4.1.4 Conversion of Fire Extinguisher Types. No fire extinguisher shall be converted from one type to another, nor shall any fire extinguisher be converted to use a different type of extinguishing agent. Fire extinguishers shall not be used for any other purpose than that of a fire extinguisher.

6.4.1.5* Leak Test. After recharging, a leak test shall be performed on stored-pressure and self-expelling types of fire extinguishers.

6.4.2 Frequency.

6.4.2.1 Pump Tank. Every 12 months, pump tank water and pump tank calcium chloride-based antifreeze types of fire extinguishers shall be recharged with new chemicals or water, as applicable.

6.4.2.2 Wetting Agent. The agent in stored-pressure wetting agent fire extinguishers shall be replaced annually. Only the agent specified on the nameplate shall be used for recharging. The use of water or other agents is prohibited.

6.4.2.3 AFFF and FFFP. The premixed agent in liquid charge-type AFFF (aqueous film-forming foam) and FFFP (film-forming fluoroprotein foam) fire extinguishers shall be replaced at least once every 3 years. The agent in solid charge-type AFFF fire extinguishers shall be replaced once every 5 years.

6.4.2.3.1 The agent in nonpressurized AFFF and FFFP fire extinguishers that is subjected to agent analysis in accordance with manufacturer's instructions shall not be required to comply with 6.4.2.3.

6.4.3 Procedures.

6.4.3.1* Recharge Agents. Only those agents specified on the nameplate or agents proven to have equal chemical composition, physical characteristics, and fire extinguishing capabilities shall be used. Agents listed specifically for use with that fire extinguisher shall be considered to meet these requirements.

6.4.3.2* Mixing of Dry Chemicals. Multipurpose dry chemicals shall not be mixed with alkaline-based dry chemicals.