

INSPECTION, MAINTENANCE, TESTING, AND RECHARGING PERIODS FOR PORTABLE FIRE EXTINGUISHERS

Fire and Life-Safety Group (FLS)

FLS has organized the following information to serve as a timetable for any inspection, maintenance, recharging, and testing of portable fire extinguishers. All of the following information can be found in the 2007 edition of the Standard for Portable Fire Extinguishers (NFPA-10).

Extinguisher Type	Inspection*	Maintenance **	Recharging ***	Hydrostatic Testing*
Dry Chemical (Stored pressure)	30 Days (6.2.1)	1 Year (6.3.1)	Empty and internally inspect @ 6 Years (6.3.3 & 6.4.3.4)	12 years (Table 7.2)
Carbon Dioxide	30 Days (6.2.1)	Maintenance and “ensure conductivity exists” @ 1 Year (6.3.1.2, 6.3.1)	5 Years (6.4.1.1, 6.4.3.9, & 6.4.5.1)	5 years (Table 7.2)
Water (Stored pressure)	30 Days (6.2.1)	1 Year (6.3.1)	1 Year (6.4.2.1 & 6.4.3.10)	5 years (Table 7.2)
Dry Chemical (Stainless Steel)	30 Days (6.2.1)	1 Year (6.3.1)	5 Years (6.4.3.4)	5 years (Table 7.2)
Dry Chemical (Cartridge)	30 Days (6.2.1)	1 Year (6.3.1)	Empty and internally inspect @ 6 Years (6.3.3, 6.4.3.4)	12 years (Table 7.2)
Wet Chemical	30 Days (6.2.1)	1 Year (6.3.1)	5 Years (6.4.3.11)	5 years (Table 7.2)
AFFF (Liquid charge type)	30 Days (6.2.1)	1 Year (6.3.1)	3 Years (6.4.2.3)	5 years (Table 7.2)
FFFP (Liquid charge type)	30 Days (6.2.1)	1 Year (6.3.1)	3 Years (6.4.2.3)	5 years (Table 7.2)
Dry Powder	<u>30 Days</u> (6.2.1)	1 Year (6.3.1)	Empty and internally inspect @ 6 Years (6.3.3, 6.4.3.4)	12 years (Table 7.2)
Halogenated (Halon)	30 Days (6.2.1)	1 Year (6.3.1)	Empty and internally inspect @ 6 Years (6.3.3, 6.4.3.4)	12 years (Table 7.2)

* The time periods indicated in the above table are to be viewed as the maximum period for each activity.

** For maintenance procedure see NFPA-10 and Annex I of NFPA-10.

*** Recharging is also required to take place after every use and if the need is identified during maintenance or inspection.

Periodic inspection of fire extinguishers shall include a check of at least the following items (NFPA-10-6.2.2):

1. Location in designated place.
2. No obstructions to access or visibility.
3. Operating instructions on nameplate legible and facing outward.
4. Safety seals and tamper indicators not broken or missing.
5. Fullness determined by weighing or "hefting."
6. Examinations for obvious physical damage, corrosion, leakage, or clogged nozzle.
7. Pressure gauge reading or indicator in the operable range or position.
8. Condition of tires, wheels, carriage, hose, and nozzle checked (for wheel units).
9. Label in place.

Maintenance procedures shall include a thorough examination of the basic elements of a fire extinguisher (NFPA-10-6.3.2):

1. Mechanical parts of all fire extinguishers.
2. Extinguishing agent of cartridge- or cylinder-operated dry chemical stored chemical, stored pressure, loaded stream, and pump tank fire extinguishers.
3. Expelling means of all fire extinguishers.

Internal examination during annual maintenance is not required for non-rechargeable fire extinguishers, carbon dioxide fire extinguishers, or stored pressure fire extinguishers, except for those types specified in 6.3.1.1, see below. These fire extinguishers are to be thoroughly examined externally in accordance with the applicable items of NFPA-10 section 6.3.2.1.

NFPA 10 section 6.3.1.1: Stored pressure types containing a loaded stream agent shall be disassembled on an annual basis and subjected to complete maintenance. Prior to assembly, the fire extinguisher shall be fully discharged to check the operation of the discharge valve and pressure gauge. The loaded stream charge shall be permitted to be recovered and re-used provided it is subjected to agent analysis in accordance with the manufacturer's instructions.

Maintenance is to be performed by a trained person who has undergone the instructions necessary to reliably perform maintenance and has the manufacturer's service manual. (NFPA-10-6.1.2)

Maintenance, servicing, and recharging, are to be performed by trained persons having available the appropriate servicing manual(s), the proper types of tools, recharging materials, lubricants, and manufacturer's recommended replacement parts or parts specifically listed for use in the fire extinguishers (NFPA-10-6.1.4)

Maintenance is to be performed in full compliance with the maintenance requirements of NFPA-10.

The following types of fire extinguishers are considered obsolete and shall be removed from service: (NFPA-10-1.5.4):

1. Soda acid
2. Chemical foam (excluding film-foaming agents)
3. Vaporizing liquid (e.g. carbon tetrachloride)
4. Cartridge-operated water
5. Cartridge-operated loaded stream
6. Copper or brass (excluding pump tanks) joined by soft solder or rivets
7. Carbon Dioxide extinguishers with metal horns
8. Solid Charge-type AFFF extinguishers (paper cartridge)

During the time period that fire extinguishers are removed from service for maintenance or recharge a replacement fire extinguisher suitable for the type of hazard being protected and of at least equal rating is to be provided. (NFPA-10-6.3.1.4)