

Chapter:	Uniforms and Equipment
Subject:	04-30 – Fire Extinguisher Maintenance
Effective:	April 19, 2022
Supersedes:	Official Order 23, Sections 23.10 and 23.11, dated May 12, 2021
Distribution:	Department Members

PURPOSE: This Order establishes guidelines for the inspection, maintenance, and testing of department fire extinguishers, including those in department vehicles. Proper maintenance is of prime importance in ensuring the extinguisher will function effectively and safely. Commanders are responsible for the inspection, maintenance, and testing of all extinguishers assigned to their command.

04-30-1 INSPECTION

- A. Monthly inspections shall be made of all extinguishers in buildings and vehicles.
- B. An inspection is a quick check to determine that:
 - (1) The extinguisher is in its designated place.
 - (2) Access to or visibility of the extinguisher is not obstructed.
 - (3) Seals or tamper indicators are not broken (some extinguishers can only be checked by lifting slightly to determine that they are full).
 - (4) The extinguisher has not been physically damaged.
 - (5) The extinguisher does not have other obvious defeats (clogged nozzle, corrosion, leakage, damaged hose, etc.).
 - (6) The maintenance record tag is up to date.
 - (7) Pressure gauge readings when not in the operable range shall be noted.
- C. Extinguishers shall have a durable tag, UD-004, attached, which shall bear the name of the member making the inspection and the date.
- D. <u>MCL 29.351</u> requires that all State Police vehicles carry a dry chemical type fire extinguisher containing not less than 4 pounds of extinguisher agent, which shall be inspected at least annually by the local fire department.
- E. When an inspection reveals that tampering has occurred or that the extinguisher is damaged, impaired, leaking, or has obvious corrosion, a maintenance check shall be initiated as indicated in the following paragraphs.

04-30-2 MAINTENANCE (See the <u>National Fire Protection Association (NFPA) 10 Standard</u> for Portable Fire Extinguishers (2010 edition)

- A. Maintenance is a thorough check of the extinguisher. The local fire department or other fire extinguisher service company shall perform this. It is intended to give maximum assurance that an extinguisher will operate effectively and safely. It includes a thorough examination and any necessary repair, recharging, or replacement. The need for hydrostatic testing shall be determined by the qualified expert in accordance with NFPA 10.
- B. Maintenance shall be conducted at regular intervals, not more than one year apart, or after any of the following acts or conditions:
 - (1) When found necessary by an inspection.
 - (2) When the extinguisher is used or otherwise emptied.
 - (3) Where there is evidence of tampering.
 - (4) When there is mechanical damage or suspected mechanical damage.

Exception: Stored pressure extinguishers with pressure indicators or gauges require maintenance as needed and at least once every six years.

04-30-3 TESTING

- A. Extinguishers shall be tested hydrostatically at regular intervals, as required by National Fire Protection Association Pamphlet No. 10 (Standard for Portable Fire Extinguishers), or more frequently when inspection or maintenance indicates a specific need. Such tests are usually required on extinguisher shells, cylinders, some cartridges, and some hose assemblies. (See Section 23.11 for schedule of required hydrostatic test intervals.)
- B. Hydrostatic tests shall be conducted, or the extinguisher replaced immediately after discovering mechanical injury or corrosion to the extinguisher shell. Hydrostatic testing shall be performed by persons having a practical knowledge of pressure-testing procedures and safeguards and having suitable testing equipment and facilities.
- C. Extinguishers removed from the premises or vehicle to be recharged shall be replaced by spare extinguishers during the period they are gone. Spare extinguishers may be obtained from the service company conducting the hydrostatic testing of extinguishers.
- D. Extinguisher shells of the non-compressed gas types that pass a hydrostatic test shall have the test information recorded on a suitable metallic label or equally durable material. The label shall be affixed by a heatless process to the shell. These labels shall be self-destructive when removal from an extinguisher shell is attempted. The label shall include the following information:
 - (1) Month and year the test was performed, indicated by a perforation, such as by a hand punch.
 - (2) Test procedure used.
 - (3) Name or initials of person performing the test, or the name of the agency performing the test.

Questions regarding inspection, maintenance, or testing of extinguishers, which E. are not answered by this Order, should be referred to the local fire department or other fire extinguisher service company.

04-30-4 HYDROSTATIC TESTS

The following are excerpts from the National Fire Protection Association Pamphlet No. 10 (2002 EDITION):

If at any time a fire extinguisher shows evidence of dents, mechanical injury, or corrosion to the extent as to indicate weakness, it shall be condemned or hydrostatically retested subject to the provisions of 8.4.2 and Section 8.8.

Hydrostatic testing shall be performed by persons who are trained in pressure testing procedures and safeguards complying with 7.1.2 and who have testing equipment, facilities, and appropriate manufacturer's service manual(s) available.

At intervals not exceeding those specified in Table 8.3.1, fire extinguishers shall be hydrostatically retested.

Table 8.3.1 Hydrostatic Test Interval for Extinguishers

Extinguisher Type	Test Interval Years)
Stored-pressure water, water mist, loaded stream, and/or anti-freeze	5
Wetting agent	5
AFFF (Aqueous film-forming foam)	5
FFFP (film-forming fluoroprotein foam)	5
Dry Chemical with Stainless Steel Shells	5
Carbon dioxide	5
Wet chemical	5
Dry Chemical, Stored Pressure, with Mild Steel Shells, Brazed Brass	12
Shells, or Aluminum Shells	
Dry Chemical, Cartridge- or cylinder- operated, with Mild Steel Shells	12
Halogenated Agents	12
Dry Powder stored-pressure, Cartridge or cylinder operated, with Mild Steel Shells	12

NOTE 1: Stored pressure water extinguishers with fiber glass shells (pre-1976) are prohibited from hydrostatic testing due to manufacturer's recall.

DIRECTOR

Annual Review Responsibility: **Organizational Development Division**

Accreditation Standards:

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