

NFPA 10, 2007 Edition Mandates Replacing Outdated Extinguishers

A revised NFPA 10, Standard for Portable Extinguishers has just been released and the standard now includes requirements to remove and replace outdated extinguishers. NFPA 10, 2007 edition states "4.4.1 Dry chemical stored pressure extinguishers manufactured prior to October 1984 shall be removed from service at the next 6-year maintenance interval or the next hydrotest interval, whichever comes first."

In the late 1970s, UL, along with the NFPA 10 committee and fire extinguisher manufacturers, conducted a series of fire tests with novice operators. These tests concluded that changes in fire extinguisher design were needed in order to better assure proper operation by novice operators.

Testing showed that many novice operators had trouble keeping the extinguisher upright when it did not have a discharge hose and nozzle. A novice operator tended to grab the bottom of an extinguisher and tilt or invert it, resulting in an ineffective discharge.

After this testing, "ANSI/UL 299, Standard for Dry Chemical Fire Extinguishers" as referenced in "NFPA 10 Standard for Portable Fire Extinguishers," was revised to require any extinguisher weighing more than 12 lb (gross weight), having a 2A rating and/or 20B rating or higher, to use a hose. Having a hose on an extinguisher makes it very difficult to hold the extinguisher in any other position than upright, and makes it easy to properly direct the discharge of agent. Before the new standard, 5 lb, 6 lb, 10 lb, and even 20 lb capacity extinguishers were being manufactured without a hose assembly, using only a fixed nozzle.

Testing with live fires and novice operators helped to develop new operating instructions that used pictograms, which proved to be more easily understood. Additionally, new NFPA use Standards and Codes that showed which extinguisher should be used on a specific type of fire were developed. This eliminated some confusion that was observed with novice operators. The new operating instructions and use codes became mandatory with the 1998 edition of UL 299 and the adoption of this standard by the fire codes.

Thousands of extinguishers manufactured prior to October 1984, are still being used and serviced today. Newly released 2007 edition of NFPA 10 now mandates replacement of these stored-pressure (non-cartridge operated) units with more effective, modern extinguishers.

FEMA supports the requirement of the new NFPA 10 standard that any stored pressure (non-cartridge operated) fire extinguisher not conforming to the UL 299 standard, manufactured prior to October 1984, be replaced. To continue to service extinguishers that do not conform to these standards serves no purpose except to reduce extinguisher effectiveness and safety in the hands of a novice, when seconds count.

UL-299: Performance-Based Improvements in Fire Extinguisher Design



A Hands-On Guide for Inspection & Maintenance

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BEFORE RECHARGING, REPAIRING, CONDUCTING A SIX YEAR MAINTENANCE OR HYDROTESTING AN EXTINGUISHER, ASK THE FOLLOWING QUESTIONS:

1 Is the extinguisher a soda-acid, cartridge operated water, two-part chemical foam, have a brass or copper shell with soft solder or rivets, is a carbon tetrachloride extinguisher, a solid cartridge type AFFF extinguisher, any stored pressure extinguisher manufactured prior to 1955, or a CO2 with a metal horn?

NO

Continue to question 2

YES

Replace it. NFPA 10 has required the removal of these extinguishers from service see NFPA 10, 4.4 – 2007 edition.

2 Does the extinguisher have to be inverted to operate?

NO

Continue to question 3

YES

Replace it. Inverting type extinguishers have not been made since the late 1960's. NFPA 10 has required the removal of these extinguishers from service. See NFPA 10, section 4.4 – 2007 edition.

3 Is the manufacturer of the extinguisher still in existence?

NO

Replace it (the liability for the extinguisher's performance rests solely on you and your customer.) NFPA 10, section 4.4.2. – 2007 edition; Any fire extinguisher that can no longer be serviced in accordance with the manufacturer's maintenance manual is considered obsolete and shall be removed from service.

YES

Continue to question 4

4 Is the extinguisher a stored pressure hand portable dry chemical made before October 1984?

NO

Continue to question 5

YES

Replace the extinguisher. NFPA 10, section 4.4.1 – 2007 edition; Dry chemical stored pressure extinguishers manufactured prior to October 1984 shall be removed from service at the next 6-year maintenance interval or the next hydrotest interval, whichever comes first.

5 Does the extinguisher have any dents, gouges or burn marks?

NO

Continue to question 6

YES

Replace it. NFPA 10, starting with the 1998 edition, has very strict visual inspection requirements regarding dents, gouges and burn marks, if the extinguisher does not pass the visual inspection it is to be removed from service. See NFPA 10, section 8.4.1 – 2007 edition.

6 Is the extinguisher listed for a Class K hazard protecting a commercial cooking hazard?

NO

Replace it. NFPA 10, section 5.5.5.4 – 2007 edition requires any existing dry chemical extinguisher that does not have a Class K listing, which is protecting Class K hazards, to be replaced when it is due for either a 6-year maintenance or a hydrotest—see NFPA 10, section 5.5.5 5.5.5* Class K Cooking Media Fires. Fire extinguishers provided for the protection of cooking appliances that use combustible cooking media (vegetable or animal oils and fats) shall be listed and labeled for Class K fires. No other types are allowed. NFPA 10, section 5.5.5.3 – 2007 edition; A placard shall be conspicuously placed near the extinguisher that states that the fire protection system shall be activated prior to using the fire extinguisher.

YES

Continue to question 7

7 Does the extinguisher replacement parts or service fee exceed 50% of the cost to replace the unit?

NO

Continue to question 8

YES

Replace it. You will probably serve yourself and your customer better by replacing the unit under these circumstances. You avoid liability exposure for servicing the extinguisher, the customer will have a new unit for a slightly higher cost than the projected cost of service or repair and a new factory warranty will be in place.
In addition, consider the costs that you will incur for labor, including making two trips to the customer's facility, leaving a loaner, and tracking and invoicing. You may not be making as much money on servicing the extinguisher as you have assumed.

8 Is the extinguisher appropriate for the hazard (the right size or agent)?

NO

Replace it with the appropriate size and type of extinguisher.

YES

SERVICE THE UNIT
NFPA 10, section 7.1.2.1–2007 edition; A trained and certified person who has undergone the instructions necessary to reliably perform maintenance and has the manufacturer's service manual shall service the fire extinguishers not more than one year apart, as outlined in NFPA 10, Section 7.3 – 2007 edition.