

# Decision Tree for the Replacement of Fire Extinguishers in the Field



**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 requires the removal of these extinguishers from service (see NFPA 10, 4.4, 2018).

**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 requires the removal of these extinguishers from service (see NFPA 10, 4.4, 2018).

**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, 4.4.2, 2018; 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, 4.4.1, 2018; Dry chemical stored pressure extinguishers with an indicated manufacturing date of 1984 or prior shall be removed from service.

**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, 8.4.2, 2018).

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

**NO**

Replace it. NFPA 10, 5.5.5.4, 2018 edition requires any existing dry chemical extinguisher that does not have a Class K listing, which is protecting Class K hazards, to be removed from service (see NFPA 10, 5.5.5, 2018). 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, 5.5.5.3, 2018; Where a hazard is protected by an automatic fire protection system, 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 extinguisher. NFPA 10, 7.3.1.1, 2018; Fire extinguishers shall be subjected to maintenance at intervals of not more than 1 year, at the time of hydrostatic test, or when specifically indicated by an inspection discrepancy or electronic notification.

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