FEMA | the life safety group

Saving Lives, Protecting Property

REMOVAL FROM SERVICE OF OBSOLETE FIRE EXTINGUISHERS

The members of the Fire Equipment Manufacturers Association (FEMA) are in the business of providing the very best hardware for fighting fires. Portable fire extinguishers are a critical component of any fire protection plan. Extinguishers are a proven tool that can be used in the beginning stages of a fire to significantly minimize the risk of death, injury, and property loss. Manufacturers invest heavily in research and development to find an optimum combination of hardware and extinguishing agent. Operator safety and fire fighting performance are the primary concerns as extinguishers are brought to the market.

The members of the National Association of Fire Equipment Distributors (NAFED), State fire equipment distributor associations and other qualified fire equipment distributors know that an essential part of good fire protection is maintaining equipment properly so that it will be ready anytime that an emergency occurs. The protection of life and property should not be compromised. Therefore the service of portable fire extinguishers has to be done according to recognized standards.

Questions sometimes arise about maintaining extinguishers versus removing from service extinguishers manufactured by companies no longer in business (such as General Fire Extinguisher Company, Fyr-Fyter, Power-Pak, Norris, RC Industries, and others) and about extinguishers that have been declared obsolete by existing manufacturers or extinguishers whose parts or recharge agent is no longer available. There is no question about removing from service the extinguishers that have been the subject of product recalls or extinguishers that have been ordered removed from service by authorities (such as carbon tetrachloride, chlorobromomethane, soldered or riveted self generating soda acid & chemical foam, gas cartridge water type and others that are operated by inverting the extinguisher to rupture the cartridge.)

History has shown us that the use of components not specified as part of an extinguisher's listing can cause dangerous and even life threatening results. Pressure relief devices, safety disks, and gauges as well as o-rings and valve stems are made to exact tolerances. Substituting non-listed parts can be extremely dangerous to service technicians and to users. Hoses and nozzles are matched to chemical characteristics to give measured flow rates and nozzle pressures. Extinguisher shell and agent must be compatible. Agent quality including the amount of active agent & chemical fines and inert materials is unique to each extinguisher type and manufacturer. Non-listed extinguisher agents with different flow characteristics have been shown to fail to discharge effectively. Agents must be tested with each individual extinguisher by a nationally recognized testing laboratory to assure required discharge times, discharge range, discharge flow rates and fire extinguishing performance. Extinguisher users must be able to count on the listed performance of an extinguisher for their safety.

FEMA offers the following information to help clarify when a fire extinguisher should no longer be kept in service due to its lack of a recognized listing.

CODES & STANDARDS

There are legal requirements that call for the provision and maintenance of "listed" fire extinguishers. Most states have adopted NFPA 10 through their building and fire prevention codes. OSHA has required "listed" extinguishers since its enactment in 1970. If an extinguisher is no longer considered "listed" it cannot be used to satisfy the requirements of the states or the federal government.

FEMA members produce extinguishers according to Underwriters Laboratories Inc. (UL) standards including ANSI / UL 8, ANSI /UL 154, ANSI /UL 299, ANSI / UL 626, ANSI / UL 1093 and ANSI/UL 2129. Extinguishers are tested for fire fighting performance per ANSI / UL 711. The combination of hardware and agent are incorporated as part of an extinguisher's listing.

The 2007 edition of NFPA 10 tells us that extinguishers "… shall be listed and labeled …" (4.1.1), "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 …" (7.4.1.4.1), and that maintenance must be done using "… the proper types of tools, recharge materials, lubricants and manufacturer's recommended replacement parts or parts specifically listed for use in the fire extinguisher" (7.1.2.2). NFPA 10 further informs us that "…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 extinguisher shall be considered to meet these requirements" (7.4.3.1).

Additionally, the 2007 Edition of NFPA 10 requires "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 hydrostatic test interval, whichever comes first." (4.4.1) and "any fire extinguisher that can no longer be serviced in accordance with the manufacturer's manual shall be removed from service." (4.4.2.). For more information on the pre-October 1984 requirement, visit our website – www.femalifesafety.org – and click on "UL-299 Brochure, a Hands on Guide" under "Educational Materials".

Federal regulations contained in 29 CFR Part 1910 state that " … Only approved portable fire extinguishers shall be used to meet the requirements of this section" (1910.157 (c)(2). The definition of "approved' is found in 1910.155 (3) "…Equipment is listed if it is a kind mentioned in a list which is published by a nationally recognized testing laboratory which makes periodic inspections of the production of such equipment and which states that such equipment meets nationally recognized standards …"

Additional federal requirements contained in 29 CFR 1910.1200 Hazard Communication Standard are meant to assure that chemicals entering the workplace match the labels on their containers. Labels on extinguishers meet this requirement only if the corresponding extinguishing agent is inside the extinguisher.

LIABILITY

Liability for servicing these extinguishers, particularly those manufactured by companies that have long been out of business, rests solely with the extinguisher service company and its components supplier. No one else is around to answer questions either in or out of court. Only the insurance policies of the fire extinguisher service company and the end-user are available to back up any problems during an incident. Given the age and antiquated design of the extinguisher, an argument could be made that problems are more likely to arise with older, outdated equipment than with newer equipment that meets current design standards. Warranties, even if the manufacturer of the equipment is still in business, have long since expired. An older extinguisher could have been made by a quality conscious manufacturer that is still in business but that same manufacturer recommended that the units be removed from service and has not made parts available.

Service companies that use recognized parts and agents protect their license, will help avoid claims against their products liability insurance policy, and will protect their good reputation and public trust.

CONCLUSIONS

There are extinguishers in the marketplace that should be removed from service because they are obsolete. This should be done first and most importantly to insure life safety. We are in the business of protecting life and property. Federal and state regulations require approved and listed extinguishers for code compliance. Federal requirements require contents in an extinguisher to match the label. Underwriters Laboratories, Inc. and NFPA 10 require servicing to be performed in accordance with the manufacturer's manual, using parts and recharge agents that will maintain the extinguisher's listing. Improper parts or agent will cause the extinguisher to loose its status as listed.

By removing obsolete extinguishers customers gets new equipment that meets current standards. Both the service company and the customer will benefit from a fresh factory warranty and the liability issue is avoided.

Prepared by the members of FEMA's Portable Division
Visit our website on Balanced Fire Protection at – www.femalifesafety.org