Report of the Committee on Portable Fire Extinguishers

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This list represents the membership at the time the Committee was balloted on the text of this edition. Since that time changes in the membership may have occurred.

The Report of the Committee on Portable Fire Extinguishers is presented for adoption.

This Report was prepared by the Technical Committee on Portable Fire Extinguishers and proposes for adoption a new document NFPA 10R-1992 Recommended Practice for Portable Fire Extinguishing Equipment in Family Dwellings and Living Units.

This Report has been submitted to letter ballot of the Technical Committee on Portable Fire Extinguishers which consists of 20 voting members; of whom 15 voted affirmatively, 5 negatively (Messrs. Huston, Kraus, Smith, Wahle, and Wright), and 2 ballots were not returned (Messrs. Hoeppner and Quim).

Mr. Huston voted negatively stating:
"Many references similar to special purpose home fire extinguisher. The type of unit this represents is not defined in definitions section or in any equipment standard. Example 2-3.1 is such an example, which also ignores use of a standard listed sodium bicarbonate portable fire extinguisher for kitchen fires.

Suggest we drop the Halogenated extinguishers out of the standard, see table below:

Rewrite the table in 14.2 as follows:

14.2.1 Extinguishers installed in the United States should meet the following ANSI standards.

A. Fire Test Standard ANSI/UL 711
B. Performance Standards
1. CO2 Types: ANSI/UL 154
2. Dry Chemical Types: ANSI/UL 299
3. Water Types: ANSI/UL 626
4. Foam Types: ANSI/UL 8

14.2.2 Extinguishers installed in Canada should meet the following Canadian Standards.

A. Fire Test Standard: CAN4-S508-M83
B. Performance Standards
1. CO2 Types: CAN4-S508-M83
2. Dry Chemical Types: ULCS504
3. Water Types: CAN4-S507-M83
4. Foam Types: CAN4-S507-M83

Justification for Change: Extinguishers must meet the Canadian National Standards (C) or Underwriters Laboratories of Canada Standards (ULC) in order to be recognized by Canadian Authorities as acceptable fire protection. ANSI/UL listed units are not acceptable in Canadian regulations. Canadian test standards and fire protection regulations are different than United States requirements. For example, residential Halon 1211 fire extinguisher applications are outside the Halon/Ozone environmental protection regulations of Canada. The Canadian fire protection industry has stated the intent of changing to International Standards Organization (ISO) Standards as soon as the ISO standards are complete. Such a move can compromise the high level of public safety and fire protection required by our present system. By separating the approved standards list into two jurisdictions as shown, each responsible jurisdiction can adjust the standards references to comply with their close at hand experience and any national laws and regulations as applicable.

5.3.2 Change the Internal Maintenance Interval from 12 years to 6 years.

Justification for Change: The NFPA 10 committee position has 6 years for internal inspection. The rechargeable halon extinguisher manufacturers position is 6 years mandatory maintenance intervals with elastomeric seal replacement as part of the full maintenance procedure. The 12 year maintenance interval is not in keeping with the actual technical committee recommendations or the manufacturers written servicing instructions.

Mr. Kraus voted negatively stating:
"The following is the FEMA substantiation for a negative vote:
2-1(d). Listed residential fire extinguisher is presently non-existent. Table 5-3.2. Frequency of internal maintenance and hydrostatic testing of fire extinguishers. Interval of maintenance for halon extinguishers, 12 years, is not consistent with NFPA 10, 1990 edition."

Mr. Smith voted negatively stating:
"Internal Maintenance Interval of 12 years for Halogenated Extinguishers (Table 5-3.2) is not consistent with Committee requirement of 6 years in NFPA 10, 1990 edition."

Mr. Wahle voted negatively stating:
"Table 5-3.2 requires a 12 year maintenance interval for halon extinguishers. This is in conflict with paragraph 4.4.1.3 of NFPA 10 which requires a 6 year maintenance interval for halon extinguishers."

Mr. Wright voted negatively stating:
"Paragraph 9.1(d) Underwriters' Laboratories of Canada lists Residential (Home) fire extinguishers as either "General Use" or "Special Use" types. Reference here to the use of a "listed Residential Fire Extinguisher" is inadequate if the basic requirement for the fire extinguisher is one rated at a minimum of 2-A; 10-B; C. Accordingly, we would recommend that this clause be changed to read: "A listed General Use Residential fire extinguisher having a rating of not less than 2-A; 10-B; C."

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Paragraph 2-2.1 (c) The selection of a halogenated agent extinguisher to fulfill the general requirements of this Recommended Practice (i.e. an extinguisher rates at 2-A; 10-B; C) would result in the use, in residences, of extinguishers having a capacity of 2.95 kg (6 lbs) or more of halon. In times of environmental emphasis on the reduction of the release of halon into the atmosphere, a recommendation for the use of relatively large halon extinguishers in an application where it is recognized that the possibility of misuse is higher than average, and the probability of return for recycling is low, is difficult to justify. Beyond this, the toxicity of the by-products from the discharge of larger halon extinguishers in frequently confined, and often tightly sealed, areas, where the young and disabled may well be present, poses an unnecessarily high risk to health. The foregoing notwithstanding, the usefulness of small halon extinguishers for the control of range top and electronic equipment fires is acknowledged. Accordingly, I would suggest that Paragraph 2-2.1 (c) be changed to read “Halogenated Agent (specific hazards only; maximum capacity 500 g).”

Paragraph 2-2.2 In light of the comment on paragraph 2-2.1, I would suggest insertion of a subparagraph reading: “Halogenated agent extinguishers having capacities in excess of 500 g.”

Paragraph 3-3 (b) Delete the first sentence. To rely upon home owners reading the caution regarding maximum volumes of rooms and applying that in an emergency, when a fire may occur in any of several rooms of widely differing volumes, is inappropriate. Should this sentence be deleted then the word “these” in the second sentence should be changed to read “halogenated agent.”
1-2 Purpose. To provide guidance for the owners and occupants of one- and two-family dwellings and living units within multifamily structures in selection, use, installation, and maintenance of fire extinguishing equipment.

1-3 Definitions.

Approved. Acceptable to the "authority having jurisdiction.*

NOTE: The National Fire Protection Association does not approve, inspect or certify any installations, procedures, equipment, or materials nor does it approve or evaluate testing laboratories. In determining the acceptability of installations or procedures, equipment or materials, the authority having jurisdiction may base acceptance on compliance with NFPA or other appropriate standards. In the absence of such standards, said authority may require evidence of proper installation, procedure or use. The authority having jurisdiction may also refer to the listings or labeling practices of an organization concerned with product evaluations which is in a position to determine compliance with appropriate standards for the current production of listed items.

Authority Having Jurisdiction. The "authority having jurisdiction" is the organization, office or individual responsible for "approving" equipment, an installation or a procedure.

NOTE: The phrase "authority having jurisdiction" is used in NFPA documents in a broad manner since jurisdictions and "approval" agencies vary as do their responsibilities. Where public safety is primarily concerned, the "authority having jurisdiction" may be a federal, state, local or other regional department or individual such as a fire chief, fire marshal, chief of a fire prevention bureau, labor department, health department, building official, electrical inspector, or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the "authority having jurisdiction." In many circumstances, the property owner or his designated agent assumes the role of the "authority having jurisdiction" at government installations, the commanding officer or departmental official may be the "authority having jurisdiction."

Automatic Residential Fire Extinguisher Unit. A fixed extinguishing device, fitted with an automatic means of operation; designed, tested, and listed for use on a particular type of hazard as identified on its label.

Class A Fires. Fires in ordinary combustible materials, such as wood, cloth, paper, rubber, upholstery, carpeting, and many plastics.

Class B Fires. Fires in flammable liquids, oils, greases, tars, oil base paints, lacquers, gasoline, kerosene, and flammable gases.

Class C Fires.* Generally Class A and/or Class B fires that involve energized electrical equipment or appliances such as toasters, televisions, air conditioners, heating equipment, and vacuum cleaners.

Floor Level. For purposes of this standard, a floor level is defined as a floor space separated from another floor space by six (6) or more steps.

Halogenated Agents. Halogenated agents referenced in this standard are bromochlorodifluoromethane (Halon 1211), bromotrifluoro methane (Halon 1301), and mixtures of Halon 1211 and Halon 1501 (Halon 1211/1301).

Hydrostatic Testing. Pressure testing of the extinguisher to verify its strength against unwanted rupture.

Inspection. A quick check of the extinguishing equipment to ascertain that it is readily available for use and to give reasonable assurance that the equipment will operate as intended. This is accomplished by viewing the extinguisher in its designated place, that it has not been activated or tampered with, and that there is no obvious physical damage or condition to prevent operation.

Labeled. Equipment or materials to which has been attached a label, symbol or other identifying mark of an organization acceptable to the "authority having jurisdiction" and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

Listed. Equipment or materials included in a list published by an organization acceptable to the "authority having jurisdiction" and concerned with product evaluation, that maintains periodic inspection of production of listed equipment or materials and whose listing states either that the equipment or material meets appropriate standards or has been tested and found suitable for use in a specified manner.

NOTE: The means for identifying listed equipment may vary for each organization concerned with product evaluation, some of which do not recognize equipment as listed unless it is also labeled. The "authority having jurisdiction" should utilize the system employed by the listing organization to identify a listed product.

Maintenance. A thorough examination of the extinguishing equipment. It is intended to give maximum assurance that the equipment will operate effectively and safely. It includes a thorough examination and any necessary repair or replacement of component parts. For fire extinguishers it will normally reveal the need for replacement or hydrostatic testing.
Portable Fire Extinguisher. A portable device containing an extinguishing agent that can be expelled under pressure for the purpose of suppressing or extinguishing fire.

Rechargeable (Refillable) Fire Extinguisher. A rechargeable (refillable) extinguisher is capable of undergoing complete maintenance including: internal inspection of the pressure vessel; replacement of all substandard parts and seals, and hydrostatic testing.

Recharging. The replacement of the extinguishing agent (also includes the expellant for certain types of extinguishers).

Residential Fire Extinguisher. A fire extinguisher that has been specifically investigated, tested, and listed for use only in and around the home (one- and two-family dwellings and living units within multifamily structures) for the purpose of suppressing or extinguishing a fire.

Residential Fire Extinguisher, Special Purpose. A fire extinguisher designed, tested, and listed for a particular type of hazard as specified on its label.

Residential Hose Cabinet.* A device consisting of a fire hose assembly and cabinet that has been specifically investigated, tested, and listed for use in and around the home (one- and two-family dwellings and living units within multifamily structures) for the purpose of suppressing or extinguishing a fire. The device also contains a listed fire extinguisher.

Servicing. Servicing includes one or more of the following: (1) maintenance, (2) recharging, and (3) hydrostatic testing.

Travel Distance. The walking distance from any point in a living unit to an extinguisher located on that floor level.

1-4 Classification, Ratings, and Performance of Fire Extinguishers.

1-4.1 Residential fire extinguishers should be listed, labeled, and approved by the authority having jurisdiction.

1-4.2 Portable fire extinguishers should meet or exceed all of the requirements of one of the fire test standards and one of the appropriate performance standards shown below:

(a) Fire Test Standards: ANSI/UL 711, CAN6-S-508-M83
(b) Performance Standards:
1. CO₂ Types: ANSI/UL 154, CAN 4-S-503-M83
2. Dry Chemical Types: ANSI/UL 299, ULC-S-504
3. Water Types: ANSI/UL 626, CAN4-S-507-M83
4. Halon Types: ANSI/UL 1095, ULC-S-512
5. Foam Types: ANSI/UL 8

1-4.3 The identification of the listing and labeling organization, the fire test, and performance standard that the extinguisher meets or exceeds is clearly marked on each extinguisher.

1-4.4 An organization listing, labeling, and making extinguishers utilizes a third party certification program for portable fire extinguishers that meets or exceeds ANSI/UL 1803, Standard for Factory Follow-Up on Third Party Certified Portable Fire Extinguishers.

Exception: Certification organizations accredited by the Standards Council of Canada.

1-5 General Requirements.

1-5.1* Fire Extinguishers.

1-5.1.1* The classification of fire extinguishers consists of one or more LETTERS that indicate the classes of fire on which an extinguisher has been found to be effective. The letters (A and B only) are preceded by a rating NUMBER that indicates the relative extinguishing effectiveness.

1-5.1.2 Fire extinguishers should be maintained in a fully charged and operable condition and kept in their designated places at all times when they are not being used.

1-5.1.3 Inverting-type fire extinguishers are not recommended and should be removed from service.

1-5.2 Fire Hose.

1-5.2.1 The fire hose is only suitable for use on fires involving Class A materials.

1-5.2.2 The fire hose should only be used for fire protection purposes.

1-5.2.3 The fire hose should be of sufficient length to effectively reach within 15 ft of all areas on the floor level being protected.

1-5.3 Owner's Manual. An owner's manual is provided by the manufacturer of listed equipment, giving instructions and caution necessary to the installation, operation, inspection, maintenance, disposal, and/or recharging of fire extinguisher(s). The manual refers to NFPA 10R, Recommended Practice for Portable Fire Extinguishing Equipment in Family Dwellings and Living Units, and NFPA 10, Standard for Portable Fire Extinguishers, as appropriate, as a source of detailed instructions. The manual should be carefully read and kept in a convenient place for future reference.

Chapter 2 Selection of Home Extinguishing Equipment

2-1 General Requirements. Selection of an extinguisher for home use should be made with the understanding of an extinguisher's capacity (or its rating) along with the potential fire hazards in the home. Depending upon the conditions existing in each living unit, additional extinguishers or ones of larger capacity may be advisable.

Minimum recommendations per floor level are:

(a) A single extinguisher rated 2-A:10-B:C or higher, or
(b) One extinguisher rated 2-A or higher and a second extinguisher rated 10-B:C or higher, or
(c)* Listed residential hose cabinet with a listed fire extinguisher, or
(d)* A listed residential fire extinguisher.

2-1.1 Attached Garages. One extinguisher rated 2-A:10-B:C should be provided to protect an attached garage that is under the home or connected to the home by a common wall.

2-2* Fire Extinguisher Types.

2-2.1 The following types of fire extinguishers are recommended for installation and use in family dwellings and living units:

(a) Dry chemical
(b) Water, AFFT, FFFF, antifreeze
(c) Halogenated agent
(d) Carbon dioxide.

2-2.2 The following types of fire extinguishers are NOT recommended for installation and use in family dwellings and living units:

(a) Inverting types (soda acid, cartridge operated water/antifreeze, foam)
(b) Vaporizing liquid (carbon tetrachloride, chlorobromomethane, methyl bromide)
(c) Extinguishers rated prior to 1955 and marked B-1, C-1 on the nameplate
(d) Fire extinguishers not listed or labeled.

2-3 Application for Specific Hazards.

2-3.1* Cooking Grease Fires. Cooking grease fires require the use of extinguishers that will extinguish the fire from a safe distance, not causing splashing of the burning grease and not permitting reignition of the fire. This can be achieved by a special purpose home fire extinguisher listed for residential grease fires or an automatic fire extinguisher unit listed for residential range top protection.

2-3.2* Electronic Equipment Fires. Where provided, extinguishers for the protection of delicate electronic equipment, such as TVs, computers, and stereos, should have a 1-B:C rating or higher and be of the carbon dioxide or halogenated agent types.

2-3.3* Detached Garages. Where provided, extinguishers for detached garages should have a rating of 2-A:10-B:C or higher.

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Chapter 3 Extinguishing Equipment Guidelines

3-1 Minimum Placement. A minimum of one portable fire extinguisher, residential fire extinguisher, or residential hose cabinet, meeting the general requirements of Section 2-1, should be provided per floor level of a living unit, with a maximum of 40 ft travel distance to the equipment.

3-2 Equipment Installation. Before installing any fire extinguishing equipment, read and understand the installation and use instructions, including the limitations, cautions, and warnings contained on the equipment and in the owner's manual. Portable fire extinguishers should be installed as follows:

(a) In an accessible spot, free from blocking by storage and equipment and near room exits that provide an escape route.

(b) So that the top of the fire extinguisher is not more than 5 ft (1.5 m) above the floor. The extinguisher equipment should be easy to reach and remove and placed where it will not be damaged.

3-3 Safety Precautions. For personal safety, observe the following precautions for locating and using extinguishing equipment:

(a) Portable fire extinguishers and residential hose cabinets should not be installed adjacent to the location of a potential fire hazard but should be accessible to the hazard.

(b) Halogenated agent extinguisher labels contain information as to the minimum volume of room that can be properly and safely protected. When using these extinguishers, avoid breathing the discharged agent or the gases produced by the thermal decomposition of the agent. Evacuate and ventilate the area immediately after use.

(c) The use of a carbon dioxide extinguisher(s) in an unventilated space can dilute the oxygen supply. Prolonged occupancy of such spaces can result in loss of consciousness due to oxygen deficiency.

(d) Extinguishers not classified for Class C hazards present a shock hazard if used on fires involving energized electrical equipment.

(e) Dry chemical extinguishers, when used in a small unventilated area, may reduce visibility for a period of up to several minutes.

(f) Most fires produce toxic decomposition products of combustion, and some materials may produce highly toxic gases. Fires may also consume available oxygen or produce dangerously high exposure to convected or radiated heat. All of these may affect the degree to which a fire can be safely approached with extinguishing equipment.

(g) Discharging portable fire extinguishers "from too close a distance" on cooking grease fires may cause splashing of the burning grease off and spread the fire. The recommended distance for operating portable fire extinguishers is shown on the label (see 5-3.1).

Chapter 4 Extinguisher/Agent Characteristics

4-1 Table 4-1.1 sets forth the general characteristics of fire extinguishers and fire extinguisher agents suitable for use in home environments.

Chapter 5 Inspection, Maintenance, and Servicing

5-1 General.

5-1.1 This chapter is concerned with the inspection, maintenance, and servicing of fire extinguishing equipment.

5-1.2 The homeowner or occupant is responsible for assuring that inspection, maintenance, and servicing of fire extinguishing equipment is performed in a timely manner by competent individuals.

5-2 Inspections.

5-2.1 Inspections should be performed when device is initially placed in service and thereafter at approximately 30-day intervals. Inspections should be performed in accordance with the owner's manual supplied with the device.

5-2.2 Inspection procedures include a check of at least the following:

(a) Device is in its designated place, and its operating instructions face outward.

(b) Access to the device is not obstructed.

(c) Operating instructions are legible.

(d) Any seals or tamper indicators are not broken, missing, or in need of replacement.

(e) Pressure gage or indicating devices, if provided, are in the operable range or position.

(f) There is no evidence of corrosion or physical damage.

5-2.3 If the inspection of the fire extinguishing equipment reveals any deficiency under 5-2.2(a) and (b), immediate corrective action should be taken by the homeowner or occupant. Deficiencies related to 5-2.2(c) thru (f) indicate the need for immediate maintenance and servicing.

5-3 Maintenance and Servicing.

5-3.1 Maintenance and servicing of fire extinguishers and automatic fire extinguisher units should be performed by fire extinguisher servicing companies that have the proper tools, recharge materials, lubricants, manufacturer's servicing instructions, and replacement parts.

5-3.2 Manufacturer's instructions specify servicing of rechargeable fire extinguishers after any use. The frequency of internal maintenance and hydrostatic testing is specified in the owner's manual and in Table 5-3.2. (SEE TABLE 5-3.2 AFTER NEXT PAGE)

5-3.3 Residential hose cabinets should be maintained annually in accordance with manufacturer's instructions.

This maintenance should include:

(a) The water control valve is operable.

(b) The hose is not cracked or rotted.

(c) The nozzle is operable.

Chapter 6 Referenced Publications

6-1 The following documents or portions thereof are referenced within this recommended practice and should be considered part of the recommendations of this document. The edition indicated for each reference is the current edition as of the date of the NFPA issuance of this document.

6-1.1 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

NFPA 10, Standard for Portable Fire Extinguishers, 1990 edition


Appendix A

This Appendix is not a part of the requirements of this document but is included for information purposes only.

A-1 Principles of Fire Extinguishment. Many fires are small at origin and may be extinguished by the use of fire extinguishers or small hose streams. The fire department should be notified as soon as a fire is discovered. This alarm should not be delayed awaiting results of application of home fire extinguishing equipment.

Portable fire extinguishing equipment can represent an important segment of a home fire protection program. If a fire starts in your home, get people out of the house and call the fire department, then use a fire extinguisher or the hose from the residential hose cabinet. In fighting a home fire:
Table 4-1.1 Extinguisher/Agent Characteristics

<table>
<thead>
<tr>
<th>Suitable for Use on Types of Fire</th>
<th>Agent Characteristics</th>
<th>Class of Fire</th>
<th>Horizontal Range</th>
<th>Discharge Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Chemical</td>
<td>Sodium bicarbonate or potassium bicarbonate based agent which discharges as a white or bluish cloud. Leaves residue that should be thoroughly cleaned up after extinguishment. Recommended for cooking grease fires.</td>
<td>B, C</td>
<td>6 to 10 ft</td>
<td>8 to 25 sec.</td>
</tr>
<tr>
<td>Multipurpose Dry Chemical</td>
<td>Ammonium phosphate based agent which discharges as a yellow cloud. Leaves a powdery or crusty residue that should be thoroughly and promptly cleaned up after extinguishment to avoid potential corrosion.</td>
<td>A, B, C</td>
<td>5 to 10 ft</td>
<td>13 to 25 sec.</td>
</tr>
<tr>
<td>AFFF, FFFP</td>
<td>Water with foam agent, which discharges as a foam. Protect from freezing. Do not use on electrical fires.</td>
<td>A, B</td>
<td>20 to 25 ft</td>
<td>50 sec</td>
</tr>
<tr>
<td>Carbon Dioxide</td>
<td>Carbon dioxide is an inert gas which discharges as a cold white cloud. Leaves no residue.</td>
<td>B, C</td>
<td>3 to 6 ft</td>
<td>8 to 12 sec.</td>
</tr>
<tr>
<td>Halogenated Agents</td>
<td>Halogenated hydrocarbons which discharge as a colorless vapor and leaves no residue. Minimum room volume limitation depending on size of extinguisher is shown on extinguisher label.</td>
<td>B, C</td>
<td>4 to 16 ft</td>
<td>8 to 15 sec.</td>
</tr>
<tr>
<td>Water</td>
<td>Water discharged as a straight stream. Protect from freezing. Do not use on electrical and grease fires.</td>
<td>A</td>
<td>30 to 40 ft</td>
<td>1 minute</td>
</tr>
</tbody>
</table>

1For further explanation of symbols, see Section 1-3.  
2Halogenated agents are Halon 1211, Halon 1301 and mixtures of Halon 1211 and Halon 1301.  
3See extinguisher name plate for those extinguishers which have A Classification.  
4Listed residential fire hose is suitable for use in fighting Class A fires.

(a) Keep near a door that can be used as an escape route.

(b) Stay low. Avoid breathing the heated smoke, vapors, or fumes as much as possible, as well as the extinguishing agents.

(c) If you feel confident in attacking the fire, use the appropriate fire fighting equipment. If the fire is not quickly extinguished, get out of the building, closing door(s) behind you, and do not re-enter.

A-1-2 Responsibility. The homeowner/occupant has an obligation for the care and use of the fire extinguishing equipment at all times. The nameplate(s) and instruction manual should be read and thoroughly understood by all persons who may be expected to use the equipment. The instruction manual should be kept in a safe place and periodically reviewed.

The presence of an extinguisher in the home is not worthwhile unless the homeowner is willing to:

(1) Understand how to use the device properly,
(2) Instruct family members who may have to use it, and
(3) Maintain and recharge it according to the manufacturer's instructions. The owner/occupant must see that everyone understands how to call the fire department and stress that they should do so for every fire, no matter how small it may be.

Homeowner/occupants should recognize fire hazards on his property and plan in advance exactly how, and with what, a fire will be fought. It is important for homeowners to understand that extinguishers of the sizes discussed have a discharge time of only 8 to 13 sec.; in actual use, no time can be wasted determining the best way to use the device. Instructional help on fire extinguisher use may also be obtained from local fire department personnel.

A-1-3 Class C Fires. When electrical equipment is deenergized, extinguishing equipment suitable for Class A or Class B fires may be used safely.
Table 5-3.2 Frequency of Internal Maintenance and Hydrostatic Testing of Fire Extinguishers

<table>
<thead>
<tr>
<th>Type of Extinguisher</th>
<th>Internal Maintenance Interval, Years</th>
<th>Hydrostatic Testing Interval, Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Chemical¹</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>Water, AFFF, FFP, Antifreeze</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Halogenated Agent²</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Carbon Dioxide</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>

1. Nonrechargeable dry chemical extinguishers do not require a 6-yr internal inspection but should be removed from service 12 yr after the date of manufacture.

2. Nonrechargeable halogenated agent extinguishers do not require an internal inspection but should be removed from service 12 yr from the date of manufacture. The extinguishers should be returned to the manufacturer or the manufacturer's designated agent for reclaiming of the halogenated agent.

Residential Hose Cabinets. See Figure A-1-3.

Figure A-1-3 Typical residential hose cabinet.

A-1-5.1 A fire extinguisher is basically a storage container for a specific chemical agent. It is a device intended to extinguish small fires in their early stages. The contents will be discharged under pressure, making it possible for the agent to reach the fire while the occupant remains at a relatively safe distance.

A-1-5.1.1 Before you select fire extinguishing equipment, identify and know the hazard on which it may be used. Fire hazards found in a home are Class A, Class B, and Class C.

(SEE Table A-1-5.1.1 CLASS A, B, C FIRES NEXT PAGE)

A-2-1(c) A listed residential hose cabinet is an assembly consisting of a cabinet, water control valve, a hose and a shutoff nozzle. The cabinet is intended to be installed flush into a wall. The cabinet is also equipped with a listed portable fire extinguisher rated for use on Class B and C fires.

A-2-1(d) Fire extinguishers listed under this category bear the marking "Residential Fire Extinguisher" on the extinguisher nameplate. They are not intended to be used to satisfy or fulfill any of the fire extinguisher requirements specified in NFPA 10, Portable Fire Extinguishers.

A-2-1.1 The extinguishers provided to meet the minimum recommendations contained in Section 2-1 should not be used on a cooking grease fire because they may not be effective and may produce undesirable splashing of the burning grease. An automatic fire extinguisher unit is a pre-engineered range top system. In the event of a range top fire, the extinguisher unit will automatically activate and discharge extinguishing agent through fixed nozzles. After discharge, it is essential to promptly have the system serviced.

A-2-3.2 A multipurpose dry chemical extinguisher provided to meet the minimum recommendations will be effective on electronic equipment fires but is not recommended because of the difficulty in cleaning the residue dry chemical extinguishing agent from the electronic equipment and the possible resultant damage to the equipment caused by the residue.

A-2-3.3 Due to the volume of flammable liquids normally present in garages (associated with automobiles, lawn mowers, snow blowers, workshops, etc.) a larger extinguisher than those meeting the minimum recommendations should be specifically installed for protection. If similar flammable liquids are kept in partially open garages, an extinguisher of this type should also be installed there.

A-5-1 Details of inspection, maintenance, and recharging procedures and requirements can be found in the extinguisher manufacturer's service manual and in NFPA 10, Standard for Portable Fire Extinguishers.
Table A-1-5-1.1 Class A, B, and C Fires

Class A Fires
Fire in ordinary combustible materials. Examples are wood, drapes, upholstery, and paper.

Class B Fires
Fires in flammable liquids. Examples are grease, gasoline, paint solvents, fuel oil, and kerosene.

Class C Fires
Fire in live electrical equipment. Examples are fire caused by faulty wiring, overheated fuse boxes, and frayed electrical cords.

Cooking Grease Fire. A special hazard fire in cooking oil, fat, shortening, or butter. These fires are fought with maximum effectiveness with dry chemical (sodium bicarbonate or potassium bicarbonate).
Appendix B Referenced Publications

B-1 The following documents or portions thereof are referenced within this recommended practice for informational purposes only. The edition indicated for each reference is the current edition as of the date of the NFPA issuance of this document.

B-1.1 NFPA Publication. National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

NFPA 10, Standard for Portable Fire Extinguishers, 1990 edition

B-1.2 CAN Publications. Standards Council of Canada, 350 Sparks Street, Ottawa, ONT K1R 7S8.

CAN4-S504-M83, Standard for Dry Chemical and Dry Powder Hand and Wheeled Fire Extinguishers

CAN4-S507-M83, Standard for 9 Liter Stored Pressure Water Type Fire Extinguishers

CAN4-S508-M83, Standard for Rating and Fire Testing of Fire Extinguishers

B-1.3 UL Publications. Underwriters Laboratories, Inc., 333 Pfingsten Road, Northbrook, IL 60062.

ANSI/UL 8-1985, Foam Fire Extinguishers

ANSI/UL 154-1982, Standard for Carbon Dioxide Fire Extinguishers

ANSI/UL 299-1982, Standard for Dry Chemical Fire Extinguishers

ANSI/UL 626-1982, Standard for 2 1/2 Gallon Stored Pressure Water Type Fire Extinguishers


ANSI/UL 1095-1982, Standard for Halogenated Agent Fire Extinguishers


B-1.4 ULC Publications. Underwriters Laboratories of Canada, 7 Crouse Road, Scarborough, ONT M1R 3A9.

CAN4-S504-M83, Standard for Carbon Dioxide Hand and Wheeled Fire Extinguishers

CAN4-S507-M83, Standard for 9 Liter Stored Pressure Water Type Fire Extinguishers

CAN4-S508-M83, Standard for Rating and Fire Testing of Fire Extinguishers

CAN4-S512-77, Standard for Halogenated Agent Fire Extinguishers.