In addition to the revisions shown in FR18, delete "stored pressure" from 4.4(11), so that it reads as follows:

4.4 Obsolete Fire Extinguishers.

... 

(11) Any stored pressure extinguisher manufactured prior to 1955

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 28 09:11:12 EDT 2015

Committee Statement

Committee Statement: Extinguishers manufactured prior to 1955 are obsolete, were tested to an outdated standard, rated with an outdated rating system, are 60 years old or older, and do not have current manuals or OEM parts available. These extinguishers should be removed from service.

Response Message: Public Input No. 266-NFPA 10-2014 [Section No. 4.4]
2.2 NFPA Publications.
National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.


|---------------------------------------------------------------|

Submitter Information Verification

<table>
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<tr>
<th>Submitter Full Name: Barry Chase</th>
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<tr>
<td>Organization: [ Not Specified ]</td>
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<tr>
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Committee Statement

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<th>Committee Statement: Update references. NFPA 1124 was removed because it has been withdrawn. (See TIA 13-01.)</th>
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<td>Response Message:</td>
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Committee Statement:

Update references. NFPA 1124 was removed because it has been withdrawn. (See TIA 13-01.)
2.3 Other Publications.

2.3.1 ASTM Publications.
ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

2.3.2 NPCA ACA Publications.
National Paint and Coatings Association, 1500 Rhode Island Avenue, NW, Washington, DC 20005.

2.3.3 CGA Publications.
Compressed Gas Association, 4221 Walney Road, 5th Floor 14501 George Carter Way, Suite 103, Chantilly, VA 20151-2923, 1788.

2.3.4 UL Publications.
Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.

2.3.5 ULC Publications.
Underwriters’ Laboratories of Canada, 7 Underwriters Road, Toronto, Ontario M1R 3A9, Canada.

2.3.6 UL/ULC Publications.
The following publications are bi-nationally harmonized standards for Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096, and Underwriters’ Laboratories of Canada, 7 Underwriters Road, Toronto, Ontario M1R 3A9, Canada.

2.3.7 UN Publications.


2.3.8 U.S. Government Publications.


2.3.9 Other Publications.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address: [ Not Specified ]
City: [ Not Specified ]
State: [ Not Specified ]
Zip: [ Not Specified ]
Submittal Date: Mon Apr 20 14:31:38 EDT 2015

Committee Statement

Committee Statement: Update references.
Response Message:
Public Input No. 187-NFPA 10-2014 [Section No. 2.3]
Public Input No. 312-NFPA 10-2014 [Section No. 2.3.6]
2.4 References for Extracts in Mandatory Sections.


Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Mon Apr 20 14:30:06 EDT 2015

Committee Statement

Committee Statement: Update extract references.
Response Message:
3.3.10* Electronic Monitoring.
- Either a local alarm device to indicate when an extinguisher is removed from its designated location or
- a method of electronic communication (data transmission) between an in-place fire extinguisher and an
electronic monitoring device/system.

Supplemental Information

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Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 21 09:35:31 EDT 2015

Committee Statement

Committee Statement: The current definition does not include the local alarm device identified in 7.2.1.4. Additional text is needed to describe this device. Updated the information on electronic monitoring in the annex to include other types.

Response Message:
Public Input No. 273-NFPA 10-2014 [Section No. 3.3.10]
Public Input No. 293-NFPA 10-2014 [Section No. A.3.3.10]
A.3.3.10 Electronic Monitoring.

One form of electronic monitoring is a local alarm device to indicate when an extinguisher is removed from its designated location. Electronic monitoring can also be accomplished utilizing low-voltage wiring or a wireless communication method. Some devices can convey information about an in-place fire extinguisher that includes status regarding extinguisher removal, pressure level, weight, and presence of condition, and whether there is an obstruction to the objects in the vicinity of an extinguisher.

Electronic monitoring can possibly be considered for one or more of the monthly inspection requirements currently within the standard, monitor the extinguisher at more frequent intervals if desired or when more frequent inspections are required, and create an electronically maintained record of the fire extinguisher.
### 3.3.16 Film-Forming Foam Agents

AQUEOUS FILM-FORMING FOAM (AFFF) and FILM-FORMING FLUOROPROTEIN FOAM (FFFP). A solution that will form an aqueous film on liquid fuels.

#### 3.3.16.1 Aqueous Film-Forming Foam (AFFF)
A solution based on fluorinated surfactants plus foam stabilizers to produce a fluid aqueous film for suppressing liquid fuel vapors.

#### 3.3.16.2 Film-Forming Fluoroprotein Foam (FFFP)
A protein-foam solution that uses fluorinated surfactants to produce a fluid aqueous film for suppressing liquid fuel vapors.

### Supplemental Information

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### Submitter Information Verification

- **Submitter Full Name:** Barry Chase
- **Organization:** Not Specified
- **Street Address:**
- **City:**
- **State:**
- **Zip:**
- **Submittal Date:** Tue Apr 21 10:02:12 EDT 2015

### Committee Statement

The terms AFFF and FFFP are used more throughout the standard (see 5.5.3, 6.3.1.1.2, 6.3.1.1.3, 6.3.2.4, 6.3.2.5, 6.3.2.6, Table 7.3.3.1, 7.7.2.3, 7.7.2.3.1, 7.7.2.3.3, 7.10.4.1, and Table 8.3.1). The defined term is only used in A.3.3.16, 3.4.8 (another definition) and D.4.2. Therefore, definitions of AFFF and FFFP are required and have been added.

### Response Message

Public Input No. 274-NFPA 10-2014 [Section No. 3.3.16]
A.3.3.16.1 Aqueous Film-Forming Foam (AFFF). The foam formed acts as a barrier both to exclude air or oxygen and to develop an aqueous film on the fuel surface that is capable of suppressing the evolution of fuel vapors. The foam produced with AFFF concentrate is dry chemical compatible and thus is suitable for combined use with dry chemicals.

A.3.3.16.2 Film-Forming Fluoroprotein Foam (FFFP). In addition to an air-excluding foam blanket, this solution also can deposit a vaporization-preventing film on the surface of a liquid fuel. This solution is compatible with certain dry chemicals.
3.3.27* Travel Distance.
The actual walking distance from any point to the nearest fire extinguisher fulfilling hazard requirements.

Supplemental Information

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Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [Not Specified]
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 21 10:16:27 EDT 2015

Committee Statement

Committee Statement: Add new annex material per attached. For Class A hazards, travel distance is from any point to an extinguisher. For Class B, D, and K hazards, travel distance is measured from the hazard to an extinguisher (or agent container for Class D).

Response Message:
Public Input No. 275-NFPA 10-2014 [Section No. 3.3.27]
Public Input No. 276-NFPA 10-2014 [New Section after 3.3.27]
A.3.3.27 Travel Distance.
For Class A hazards, travel distance is from any point to an extinguisher. For Class B, D, and K hazards, travel distance is measured from the hazard to an extinguisher (or agent container for Class D). Travel distance will be affected by partitions, location of doorways, aisles, piles of stored materials, machinery, and other walking obstructions. It is important to consider these obstructions as a person retrieving an extinguisher will need to walk around obstructions, which takes time.
3.3.28 Wetting Agent.

A concentrate which, when added to water, reduces the surface tension and increases its ability to penetrate and spread. [18, 2011 2017 ]

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date: Mon Apr 20 14:45:18 EDT 2015

Committee Statement

Committee Statement: Update extract.
Response Message:
4.1.1*  
Portable fire extinguishers used to comply with this standard shall be listed and labeled and shall meet or exceed all the requirements of one of the following fire test standards and one of the following applicable performance standards: ANSI/UL 711, CAN/ULC-S508, Standard for Rating and Fire Testing of Fire Extinguishers, and one of the following applicable performance standards:

   Carbon dioxide types: ANSI/UL 154, CAN/ULC-S508, Standard for Carbon-Dioxide Fire Extinguishers

2) Performance standards: Dry chemical types: ANSI/UL 299, CAN/ULC-S504, Standard for Dry Chemical Fire Extinguishers
   Carbon dioxide types: ANSI/UL 154, CAN/ULC-S508, Standard for Carbon-Dioxide Fire Extinguishers
   Dry chemical types: ANSI/UL 299, CAN/ULC-S504, Standard for Dry Chemical Fire Extinguishers
   Water types: ANSI/UL 626, CAN/ULC-S507, Standard for Water Fire Extinguishers
   Halon types: CAN/ULC-S512, Standard for Halogenated Agent Hand and Wheeled Fire Extinguishers
   Film-forming foam types: ANSI/UL 8, CAN/ULC-S554, Water Based Agent Fire Extinguishers
   Halocarbon types: ANSI/UL 2129, CAN/ULC-S566, Standard for Halocarbon Clean Agent Fire Extinguishers

3) Water types: ANSI/UL 626, CAN/ULC-S507, Standard for Water Fire Extinguishers

4) Halon types: CAN/ULC-S512, Standard for Halogenated Agent Hand and Wheeled Fire Extinguishers

5) Film-forming foam types: ANSI/UL 8, CAN/ULC-S554, Water Based Agent Fire Extinguishers

6) Halocarbon types: ANSI/UL 2129, CAN/ULC-S566, Standard for Halocarbon Clean Agent Fire Extinguishers

Submitter Information Verification

Submitter Full Name: Barry Chase  
Organization: [ Not Specified ]  
Street Address:  
City:  
State:  
Zip:  
Submittal Date: Tue Apr 21 10:44:13 EDT 2015

Committee Statement

Committee Statement: The revisions are editorial.  
Response Message: 
Public Input No. 277-NFPA 10-2014 [Section No. 4.1.1]
4.1.4.1
In addition to successfully meeting the requirements of ANSI/UL 711, CAN/ULC-S508, water-based agents that are listed for the Class C rating shall be tested in accordance with ASTM D5391, Standard Test for Electrical Conductivity and Resistivity of a Flowing High Purity Water Sample.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 21 12:02:21 EDT 2015

Committee Statement

Committee Statement: This requirement only applies to extinguishers that are listed for the Class C rating such as water mist extinguishers.

Response Message:

Public Input No. 324-NFPA 10-2015 [Section No. 4.1.4.1]
4.2* Identification of Contents.
A fire extinguisher shall have a label, tag, or stencil attached to it providing the following information:

(1) The content's product name as it appears on the manufacturer's Material Safety Data Sheet (MSDS)


(3) List of any hazardous materials that are in excess of 1.0 percent of the contents

(4) List of each chemical in excess of 5.0 percent of the contents

(5) Information as to what is hazardous about the agent in accordance with the MSDS

(6) Manufacturer's or service agency's name, mailing address, and phone number

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [Not Specified]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Mon Apr 20 14:48:49 EDT 2015

Committee Statement

Committee Statement: Canada is replacing WHMIS with the UN's Globally Harmonized System for Classification and Labeling of Chemicals (GHS).
Response Message: 
The following types of fire extinguishers are considered obsolete and shall be removed from service:

1. Soda acid
2. Chemical foam (excluding film-forming agents)
3. **Vaporizing liquid (e.g., carbon tetrachloride)** Carbon tetrachloride, methyl bromide, and chlorobromomethane (CBM)
4. Cartridge-operated water
5. Cartridge-operated loaded stream
6. Copper or brass shell (excluding pump tanks) joined by soft solder or rivets
7. Carbon dioxide extinguishers with metal horns
8. **Solid charge–type AFFF extinguishers (paper cartridge)**
9. Pressurized water fire extinguishers manufactured prior to 1971
10. Any extinguisher that needs to be inverted to operate
11. Any **stored pressure** extinguisher manufactured prior to 1955
12. Any extinguishers with 4B, 6B, 8B, 12B, and 16B fire ratings
13. Stored-pressure water extinguishers with fiberglass shells (pre-1976)

**Submitter Information Verification**

**Submitter Full Name:** Barry Chase  
**Organization:** [Not Specified]  
**Street Address:**  
**City:**  
**State:**  
**Zip:**  
**Submittal Date:** Tue Apr 21 13:49:21 EDT 2015

**Committee Statement**

**Committee Statement:** Number (3), as written, eliminates all vaporizing liquid extinguishing agents. There are currently numerous types of vaporizing liquid clean extinguishing agents in use today that are acceptable, i.e. Halon 1211 and Halotron 1. Though these agents may be categorized as Halogenated Agents, they still also fall under the broader general category of "vaporizing liquids".

SEE ALSO FR71 FOR BALLOTED DETAIL ON ITEM (11).

**Response Message:**

Public Input No. 328-NFPA 10-2015 [Section No. 4.4 [Excluding any Sub-Sections]]
Dry chemical stored-pressure extinguishers manufactured prior to October 1984 with an indicated manufacturing date of 1984 or prior shall be removed from service at the next 6-year maintenance interval or the next hydrotest, whichever comes first.

### Submitter Information Verification

- **Submitter Full Name:** Barry Chase
- **Organization:** [Not Specified]
- **Street Address:**
- **City:**
- **State:**
- **Zip:**
- **Submittal Date:** Tue Apr 21 14:38:15 EDT 2015

### Committee Statement

- **Committee Statement:** All hydrotest dates have passed for stored pressure extinguishers manufactured prior to October, 1984, thus there is no reason to maintain this language.

**Response Message:**

- Public Input No. 84-NFPA 10-2013 [Section No. 4.4.1 [Excluding any Sub-Sections]]
- Public Input No. 265-NFPA 10-2014 [Section No. 4.4.1]
5.5.1.1*  Extinguishers for Pressurized Flammable Liquids and Pressurized Gas Fires. Large-capacity dry chemical extinguishers of 10 lb (4.54 kg) or greater and a discharge rate of 1 lb/sec (0.45 kg/sec) or more shall be used to protect these hazards.

5.5.1.1.1  Selection of fire extinguishers for this type of hazard shall be made on the basis of recommendations by manufacturers of this specialized equipment.

5.5.1.1.2  Large-capacity dry chemical extinguishers of 10 lb (4.54 kg) or greater and a discharge rate of 1 lb/sec (0.45 kg/sec) or more shall be used to protect these hazards.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Tue Apr 21 14:43:26 EDT 2015

Committee Statement

Committee Statement: Existing 5.5.1.1.2 contains the manufacturer's recommendation therefore 5.5.1.1 has been deleted.
Response Message: Public Input No. 325-NFPA 10-2015 [Section No. 5.5.1.1]
5.5.3 Obstacle Fires.
Selection of a fire extinguisher for this type of hazard shall be based on one of the following:

1. Extinguisher containing a vapor-suppressing foam agent

2. Multiple extinguishers containing non-vapor-suppressing Class B agents intended for simultaneous application

3. Larger capacity extinguishers of 10 lb (4.54 kg) or greater and a minimum discharge rate of 1 lb/sec (0.45 kg/sec)

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Tue Apr 21 14:44:33 EDT 2015

Committee Statement

Committee Statement: The paragraphs have been renumbered to a more logical order of the paragraphs.
Response Message:
Public Input No. 327-NFPA 10-2015 [Sections 5.5.3, 5.5.4]
5.5.7 Areas Containing Oxidizers.

5.5.7.1* Dry Chemical and CO₂ Extinguishers.
Only water-type extinguishers shall be installed in areas containing oxidizers, such as pool chemicals. The placement and use of carbon dioxide (CO₂) or dry chemical extinguishers containing ammonium compounds (Class A:B:C) shall be prohibited in areas where oxidizers that can release chlorine or bromine are stored. [400, 2016]

5.5.7.2* Halon Extinguishers.
Multipurpose dry chemical fire extinguishers shall not be installed in areas containing oxidizers, such as pool chemicals. Halon extinguishers shall not be used in areas where oxidizers are stored. [400, 2016]

5.5.7.3* Halocarbon Clean Agent Extinguishers.
Halocarbon clean agent extinguishers shall not be used in areas where oxidizers are stored, unless they have been tested to the satisfaction of the AHJ. [400, 2016]

5.5.7.4 Fire extinguishers intended for use on oxidizer fires shall be selected and installed based on the specific recommendations contained within the material's safety data sheet (SDS).

5.5.7.3* Halocarbon Clean Agent Extinguishers.
Halocarbon clean agent extinguishers shall not be used in areas where oxidizers are stored, unless they have been tested to the satisfaction of the AHJ. [400, 2016]
A.5.5.7.1 A dry-chemical fire-extinguishing agent containing ammonium compounds (such as some A:B:C agents) should not be used on oxidizers that contain chlorine and bromine. The reaction between the oxidizer and the ammonium salts in the fire-extinguishing agent can produce the explosive compound nitrogen trichloride ($\text{NCl}_3$). Carbon dioxide or other extinguishing agents that function by a smothering action for effective use are of no value in extinguishing fires involving oxidizers.

A.5.5.7.2 Halon extinguishers should not be used on fires involving oxidizers because they can react with the oxidizer.

A.5.5.7.3 Halocarbon clean agents are chemically similar to Halon and unless proved different should be assumed to react with the oxidizer.
Where portable fire extinguishers are required to be installed, the following documents shall be reviewed for the occupancies outlined in their respective scopes:

1. NFPA 1, *Fire Code*
2. NFPA 2, *Hydrogen Technologies Code*
3. NFPA 22, *Standard for Water Tanks for Private Fire Protection*
4. NFPA 30, *Flammable and Combustible Liquids Code*
5. NFPA 30A, *Code for Motor Fuel Dispensing Facilities and Repair Garages*
6. NFPA 33, *Standard for Spray Application Using Flammable or Combustible Materials*
7. NFPA 40, *Standard for the Storage and Handling of Cellulose Nitrate Film*
10. NFPA 51B, *Standard for Fire Prevention During Welding, Cutting, and Other Hot Work*
11. NFPA 52, *Vehicular Gaseous Fuel Systems Code*
15. NFPA 72, *National Fire Alarm and Signaling Code*
17. NFPA 76, *Standard for the Fire Protection of Telecommunications Facilities*
22. NFPA 102, *Standard for Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures*
27. NFPA 140, *Standard on Motion Picture and Television Production Studio Soundstages, Approved Production Facilities, and Production Locations*
29. NFPA 160, *Standard for the Use of Flame Effects Before an Audience*
30. NFPA 232, *Standard for the Protection of Records*
32. NFPA 301, *Code for Safety to Life from Fire on Merchant Vessels*
33. NFPA 302, *Fire Protection Standard for Pleasure and Commercial Motor Craft*
34. NFPA 303, *Fire Protection Standard for Marinas and Boatyards*
36. NFPA 326, *Standard for the Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair*
37. NFPA 385, *Standard for Tank Vehicles for Flammable and Combustible Liquids*
(38) NFPA 400, Hazardous Materials Code
(39) NFPA 403, Standard for Aircraft Rescue and Fire-Fighting Services at Airports
(40) NFPA 407, Standard for Aircraft Fuel Servicing
(41) NFPA 408, Standard for Aircraft Hand Portable Fire Extinguishers
(42) NFPA 409, Standard on Aircraft Hangars
(43) NFPA 410, Standard on Aircraft Maintenance
(44) NFPA 418, Standard for Heliports
(45) NFPA 423, Standard for Construction and Protection of Aircraft Engine Test Facilities
(46) NFPA 484, Standard for Combustible Metals
(47) NFPA 495, Explosive Materials Code
(48) NFPA 498, Standard for Safe Havens and Interchange Lots for Vehicles Transporting Explosives
(49) NFPA 501A, Standard for Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities
(50) NFPA 502, Standard for Road Tunnels, Bridges, and Other Limited Access Highways
(51) NFPA 505, Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations
(52) NFPA 655, Standard for Prevention of Sulfur Fires and Explosions
(53) NFPA 731, Standard for the Installation of Electronic Premises Security Systems
(54) NFPA 801, Standard for Fire Protection for Facilities Handling Radioactive Materials
(55) NFPA 804, Standard for Fire Protection for Advanced Light Water Reactor Electric Generating Plants
(56) NFPA 805, Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants
(57) NFPA 820, Standard for Fire Protection in Wastewater Treatment and Collection Facilities
(59) NFPA 914, Code for Fire Protection of Historic Structures
(60) NFPA 1123, Code for Fireworks Display
(61) NFPA 1124, Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles
(62) NFPA 1125, Code for the Manufacture of Model Rocket and High Power Rocket Motors
(63) NFPA 1126, Standard for the Use of Pyrotechnics Before a Proximate Audience
(64) NFPA 1141, Standard for Fire Protection Infrastructure for Land Development in Wildland, Rural, and Suburban Areas
(65) NFPA 1192, Standard on Recreational Vehicles
(66) NFPA 1194, Standard for Recreational Vehicle Parks and Campgrounds
(67) NFPA 1221, Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems
(68) NFPA 1901, Standard for Automotive Fire Apparatus
(69) NFPA 1906, Standard for Wildland Fire Apparatus
(70) NFPA 5000, Building Construction and Safety Code

Supplemental Information

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Committee Statement

Committee Statement: NFPA 1124 was removed from 5.6.1 because it has been withdrawn. (See TIA 13-01.) NFPA 851 was removed from A.5.6.1 because it has been withdrawn and merged into NFPA 850.
FR-9, Annex material changes

A.5.6.1
Where portable fire extinguishers are required to be installed, the following documents should be reviewed for the occupancies outlined in their respective scopes:

1. NFPA 77, *Recommended Practice on Static Electricity*
2. NFPA 402, *Guide for Aircraft Rescue and Fire-Fighting Operations*
4. NFPA 850, *Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations*
5. NFPA 851, *Recommended Practice for Fire Protection for Hydroelectric Generating Plants*
6.1.1.2
Additional extinguishers shall be permitted to be installed to provide more protection *as necessary*.

Submitter Information Verification

*Submitter Full Name:* Barry Chase  
*Organization:* [ Not Specified ]  
*Street Address:*  
*City:*  
*State:*  
*Zip:*  
*Submittal Date:* Tue Apr 21 15:21:22 EDT 2015

Committee Statement

*Committee Statement:* More extinguishers should be allowed, independent of whether or not they are considered necessary.

*Response Message:*  
*Public Input No. 279-NFPA 10-2014 [Section No. 6.1.1.2]*
6.1.1.3
Fire extinguishers having ratings less than those specified in Table 6.2.1.1 and Table 6.3.1.1 shall be permitted to be installed, provided they are not used in fulfilling the minimum protective requirements of this chapter, except as modified in 6.2.1.3.1, 6.2.1.4, and 6.3.1.1.1.1.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 21 15:21:57 EDT 2015

Committee Statement

Committee Statement: The correct reference is 6.3.1.1.1.
Response Message:
Public Input No. 280-NFPA 10-2014 [Section No. 6.1.1.3]
6.1.3.3.1
Fire extinguishers shall not be obstructed or obscured from view. be installed in locations where they are visible except as permitted by 6.1.3.3.2.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Tue Apr 21 15:57:56 EDT 2015

Committee Statement

Committee Statement: Since this is the installation chapter, this requirement should pertain to properly installing the extinguisher.

Response Message:
Public Input No. 281-NFPA 10-2014 [Section No. 6.1.3.3.1]
In large rooms and in certain locations where visual obstructions cannot be completely avoided, signs or other means shall be provided to indicate the extinguisher location.

Committee Statement:

Committee: As a minimum, signs or other means need to be provided to indicate the extinguisher location.

Committee: Fire extinguisher signs are the preferred method for identifying extinguisher locations.

Response Message:

Public Input No. 282-NFPA 10-2014 [Section No. 6.1.3.3.2]
Public Input No. 321-NFPA 10-2015 [Section No. A.6.1.3.3.2]
A.6.1.3.3.2
The primary means for identifying the locations of fire extinguishers should be by the installation of fire extinguisher signs that are specifically designed for that purpose. Examples of other means of identifying the fire extinguisher locations include arrows, lights, signs, or coding of the wall or column.
6.1.3.3.3
Where signs are used to indicate fire extinguisher location, the signs shall comply with the following:

- They shall be located in close proximity to the extinguisher.
- They shall be visible from the normal path of travel.

Signs or other means used to indicate fire extinguisher location shall be located in close proximity to the extinguisher.

**Submitter Information Verification**

- **Submitter Full Name:** Barry Chase
- **Organization:** [ Not Specified ]
- **Street Address:**
- **City:**
- **State:**
- **Zip:**
- **Submittal Date:** Tue Apr 21 16:11:14 EDT 2015

**Committee Statement**

- **Committee Statement:** The text has been clarified.
- **Response Message:**
  - Public Input No. 283-NFPA 10-2014 [Section No. 6.1.3.3]
6.1.3.4 *
Portable fire extinguishers other than wheeled extinguishers shall be installed using any of the following means:

1. Securely on a hanger intended for the extinguisher
2. In the bracket incorporating releasing straps or bands supplied by the extinguisher manufacturer
3. In a listed bracket incorporating releasing straps or bands approved for such purpose
4. In approved cabinets or wall recesses

6.1.3.4.1
Hangers and brackets shall not be fabricated in the field.

Supplemental Information

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Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [Not Specified]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Tue Apr 21 16:18:02 EDT 2015

Committee Statement

Committee Statement: Text was added to help correct problems identified in the field for inappropriate installations.

Too often building occupants/owners believe an extinguisher can be placed in a general use cabinet along with other business storage. The revised text clarifies that the cabinet must be of an approved type.

The annex was revised to remove the specific construction description of a portable extinguisher stand.

Response Message:
Public Input No. 46-NFPA 10-2013 [Section No. 6.1.3.4]
Public Input No. 298-NFPA 10-2014 [Section No. A.6.1.3.4]
A.6.1.3.4
In situations where it is necessary that fire extinguishers be provided temporarily, a good practice is to provide portable stands, consisting of a horizontal bar on uprights with feet, on which the fire extinguishers can be hung installed. Portable stands should be designed to comply with the mounting heights for extinguishers (see 6.1.3.8).

A.6.1.3.4 (1)
Hangers not intended for extinguishers should not be installed [e.g., a 5 lb (2.3 kg) extinguisher hanger should not be used with a 10 lb (4.5 kg) extinguisher).
First Revision No. 29-NFPA 10-2015 [Section No. 6.1.3.7]

6.1.3.7*
Fire extinguishers installed under conditions where or in locations where they are subject to physical damage (e.g., from impact, vibration, the environment) shall be protected against such damage.

A.5.5.2
A three-dimensional Class B fire involves Class B materials in motion, such as pouring, running, or dripping flammable liquids, and generally includes vertical as well as one or more horizontal surfaces. Fires of this nature are considered to be a special hazard. The system used to rate fire extinguishers on Class B fires (flammable liquids in depth) is not directly applicable to this type of hazard. The installation of fixed systems should be considered where applicable.

Supplemental Information

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<td>New annex material.</td>
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Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [Not Specified]
Street Address:   
City:             
State:            
Zip:              
Submittal Date:   Tue Apr 21 16:29:04 EDT 2015

Committee Statement

Committee Statement: The text has been revised for clarification. New annex material was added.
Response Message:
Public Input No. 47-NFPA 10-2013 [Section No. 6.1.3.7]
Public Input No. 299-NFPA 10-2014 [New Section after A.6.1.3.10.4]
A.6.1.3.7
Where an extinguisher is located in an area that it is susceptible to damage, the supplier of the extinguisher should be consulted to determine whether special mounting equipment or protective coverings are available.
The extinguisher operating instructions shall be located on the front of the extinguisher and shall be clearly visible. Fire extinguishers shall be installed so that the fire extinguisher's operating instructions face outward.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Tue Apr 21 17:01:23 EDT 2015

Committee Statement

Committee Statement: The requirement has been updated to relate to the installation of the extinguisher, rather than the placement of the instructions on the extinguisher. The proposed wording matches the requirement for cabinets (6.1.3.10.3).

Response Message:

Public Input No. 284-NFPA 10-2014 [Section No. 6.1.3.9.1]
6.1.3.10.6
Only surface mounted cabinets or fire-rated cabinets shall be installed in 1-hour and 2-hour fire-resistance-rated walls.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submitter Date: Tue Apr 21 17:07:42 EDT 2015

Committee Statement

Committee Statement: Only surface mounted cabinets or fire-rated cabinets which are specially constructed with gypsum board installed on the sides, top, bottom, and back and are intended to be installed in 1-hour and 2-hour fire-resistance-rated walls. Cabinets that are not fire-rated should not be installed in these walls as they would make the entire fire-rated wall non-compliant.

Response Message:
Public Input No. 285-NFPA 10-2014 [New Section after 6.1.3.10.5]
6.1.5 Electronic Monitoring and Alarm System.

Where an electronic monitoring and alarm system is installed, 6.1.5.1 and 6.1.5.2 shall apply.

6.1.5.1
The connection to the electronic monitoring device shall be continuously supervised for integrity.

6.1.5.2
The power source for the electronic monitoring device shall be supervised for continuity of power.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [Not Specified]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Tue Apr 21 17:30:53 EDT 2015

Committee Statement

Committee Statement: The revision clarifies that an electronic supervision and alarm system is not required for all circumstances.

Response Message:
Public Input No. 49-NFPA 10-2013 [Section No. 6.1.5]
Public Input No. 287-NFPA 10-2014 [Section No. 6.1.5.1]
Public Input No. 288-NFPA 10-2014 [Section No. 6.1.5.2]
First Revision No. 33-NFPA 10-2015 [Section No. 6.2.1.1]

6.2.1.1
Minimal sizes of fire extinguishers for the listed grades of hazards shall be provided on the basis of Table 6.2.1.1, except as modified by 6.2.1.3.1 and 6.2.1.4.

Table 6.2.1.1 Fire Extinguisher Size and Placement for Class A Hazards

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Light Hazard Occupancy</th>
<th>Ordinary Hazard Occupancy</th>
<th>Extra Hazard Occupancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum rated single extinguisher</td>
<td>2-A</td>
<td>2-A</td>
<td>4-A</td>
</tr>
<tr>
<td>Maximum floor area per unit of A</td>
<td>3000 ft(^2)</td>
<td>1500 ft(^2)</td>
<td>1000 ft(^2)</td>
</tr>
<tr>
<td>Maximum floor area per extinguisher</td>
<td>11,250 ft(^2)</td>
<td>11,250 ft(^2)</td>
<td>11,250 ft(^2)</td>
</tr>
<tr>
<td>Maximum travel distance to extinguisher</td>
<td>75 ft</td>
<td>75 ft</td>
<td>75 ft</td>
</tr>
</tbody>
</table>

For SI units, 1 ft = 0.305 m; 1 ft\(^2\) = 0.0929 m\(^2\).
Note: For maximum floor area explanations, see E.3.3.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [Not Specified]
Street Address: [Not Specified]
City: [Not Specified]
State: [Not Specified]
Zip: [Not Specified]
Submittal Date: Tue Apr 21 17:41:15 EDT 2015

Committee Statement

Committee Statement: The revision is editorial.
Response Message:
Public Input No. 50-NFPA 10-2013 [Section No. 6.2.1.1]
6.2.1.6
The protection requirements shall be permitted to be fulfilled with fire extinguishers of higher rating, provided the travel distance to such larger fire extinguishers does not exceed 75 ft (22.9 m) and the maximum floor area per unit of A is not exceeded.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [Not Specified]
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 21 18:03:41 EDT 2015

Committee Statement

Committee Statement: Extinguishers installed for Class A building protection must comply with 6.2.1.2.1 and 6.2.1.2.2. The current provision only stipulates the requirement of 6.2.1.2.2.

Response Message: [Public Input No. 289-NFPA 10-2014 [Section No. 6.2.1.6]]
6.3.1.1* Minimum ratings of fire extinguishers for the listed grades of hazard shall be provided in accordance with Table 6.3.1.1.

Table 6.3.1.1 Fire Extinguisher Size and Placement for Class B Hazards

<table>
<thead>
<tr>
<th>Type of Hazard</th>
<th>Basic Minimum Extinguisher Rating</th>
<th>Maximum Travel Distance to Extinguishers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light</td>
<td>5-B</td>
<td>30 ft  9.14 m</td>
</tr>
<tr>
<td></td>
<td>10-B</td>
<td>50 ft  15.25 m</td>
</tr>
<tr>
<td>Ordinary</td>
<td>10-B</td>
<td>30 ft  9.14 m</td>
</tr>
<tr>
<td></td>
<td>20-B</td>
<td>50 ft  15.25 m</td>
</tr>
<tr>
<td>Extra</td>
<td>40-B</td>
<td>30 ft  9.14 m</td>
</tr>
<tr>
<td></td>
<td>80-B</td>
<td>50 ft  15.25 m</td>
</tr>
</tbody>
</table>

Note: The specified ratings do not imply that fires of the magnitudes indicated by these ratings will occur, but, rather, they are provided to give the operators more time and agent to handle difficult spill fires that have the potential to occur.

6.3.1.1.1 Two or more fire extinguishers of lower rating shall not be used to fulfill the protection requirements of Table 6.3.1.1, except as permitted by 6.3.1.1.2 and 6.3.1.1.3.

6.3.1.1.2 Up to three AFFF or FFFP fire extinguishers of at least 2\(\frac{1}{2}\) gal (9.46 L) capacity shall be permitted to be used to fulfill extra hazard requirements.

6.3.1.1.3 Two AFFF or FFFP fire extinguishers of at least 1.6 gal (6 L) capacity shall be permitted to be used to fulfill ordinary hazard requirements.

Supplemental Information

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Submitter Information Verification

Submitter Full Name: Barry Chase
Organization:  [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date:  Wed Apr 22 14:20:42 EDT 2015

Committee Statement

Committee Statement: The new annex material will help in applying Table 6.3.1.1 correctly.
Response Message:

Public Input No. 301-NFPA 10-2014 [New Section after A.6.3.2.2]
A.6.3.1.1

The ratings used in Table 6.3.1.1 are based on the fire test standard UL 711, *Rating and Fire Testing of Fire Extinguishers*. These test fires are conducted in square pans containing a flammable liquid. The flammable liquids in the pans are not in motion, and these fires don’t have objects in them to interfere with the application of the extinguishing agent. A spill fire can be protected in accordance with Table 6.3.1.1.
6.6.1*
Class K fire extinguishers shall be provided for hazards where there is a potential for fires involving combustible cooking media (vegetable or animal oils and fats).

Supplemental Information

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Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [Not Specified]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Wed Apr 22 17:27:17 EDT 2015

Committee Statement

Committee Statement: Add new annex material. This revision incorporates Formal Interpretation 10-02-2.
Response Message: 

http://submittals.nfpa.org/TerraViewWeb/ContentFetcher?commentPara...
A.6.6.1
Examples of hazards where Class K extinguishers are needed include, but are not limited to, fryers, griddles, and stove tops.
Periodic inspection or electronic monitoring of fire extinguishers shall include a check of at least the following items:

1. Location in designated place
2. No obstruction to access or visibility of the extinguisher or means of indicating the extinguisher location
3. Access to the extinguisher
4. Pressure gauge reading or indicator in the operable range or position
5. Fullness determined by weighing or hefting
6. Condition of tires, wheels, carriage, hose, and nozzle for wheeled extinguishers
7. Indicator for nonrechargeable extinguishers using push-to-test pressure indicators

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [Not Specified]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Wed Apr 22 08:55:00 EDT 2015

Committee Statement

Committee Statement: Current wording is confusing and could become subjective. New wording provides an enforceable requirement.

Public Input No. 290-NFPA 10-2014 [Section No. 7.2.2 [Excluding any Sub-Sections]]
### 7.2.2.1

The owner or the owner's agent shall determine the method of extinguisher inspection such as manual inspection, electronic monitoring, or any combination of the two.

### Submitter Information Verification

- **Submitter Full Name:** Barry Chase  
- **Organization:** [ Not Specified ]  
- **Street Address:**  
- **City:**  
- **State:**  
- **Zip:**  
- **Submittal Date:** Wed Apr 22 09:10:30 EDT 2015

### Committee Statement

- **Committee Statement:** The type of inspection service provided should be at the discretion of the building owner or designated agent. The owner or agent should also be the party that determines one method or another or a combination of methods. Any alternate method to visual inspection should be reviewed and approved by the AHJ.

### Response Message:

Public Input No. 291-NFPA 10-2014 [New Section after 7.2.2.1]
7.2.2.5 Inspection Procedure for Containers of Class D Extinguishing Agent.
Periodic inspection of containers of Class D extinguishing agent used to protect Class D hazards shall include verification of at least the following:

1. Located in designated place
2. No obstruction to access or visibility Visibility of the container or means of indicating the container location
3. Access to the container
4. Lid is sealed
5. Fullness by hefting or weighing
6. No obvious physical damage to container

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 22 09:14:16 EDT 2015

Committee Statement

Committee Statement: Current wording is confusing and could become subjective. New wording provides an enforceable requirement.
Response Message:

Public Input No. 292-NFPA 10-2014 [Section No. 7.2.3]
7.3.1.1 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.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [Not Specified]
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 22 09:16:40 EDT 2015

Committee Statement

Committee Statement: The text clarifies that maintenance must be performed at least once per year.
Response Message:
Public Input No. 333-NFPA 10-2015 [New Section after 7.3.1]
Public Input No. 303-NFPA 10-2014 [New Section after A.7.3.2.2]
7.3.3.3* Cartridge- or Cylinder-Operated Extinguishers.
The extinguishing agent of cartridge- or cylinder-operated extinguishers shall be internally examined annually.

Supplemental Information

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<tr>
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Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 22 17:41:32 EDT 2015

Committee Statement

Committee Statement: Add new annex material. This incorporates Formal Interpretation 84-5.
Response Message:
A.7.3.3.3
It is not necessary to empty cartridge- or cylinder-operated dry chemical fire extinguishers to check the condition of the extinguishing agent.
7.3.4.3 Verification-of-Service Collar (Maintenance or Recharging).

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address: [ Not Specified ]
City: [ Not Specified ]
State: [ Not Specified ]
Zip: [ Not Specified ]
Submittal Date: Wed Apr 22 09:44:14 EDT 2015

Committee Statement

Committee Statement: Editorial.
Response Message:
1. Public Input No. 53-NFPA 10-2013 [Section No. 7.3.4.3]
2. Public Input No. 306-NFPA 10-2014 [Section No. 7.3.4.3]
3. Public Input No. 332-NFPA 10-2015 [Section No. 7.3.4.3]
7.5 Hose Station Maintenance.
Where hose stations are installed to comply with 6.2.1.4, they shall be maintained in accordance with NFPA 1962.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [Not Specified]
Street Address:
City:
State:
Zip:
Submittal Date: Tue Apr 21 17:57:08 EDT 2015

Committee Statement

Committee Statement: NFPA 10 fails to emphasize the need for regular maintenance of fire hoses that are installed in lieu of fire extinguishers. NFPA 10 requires fire extinguishers to be regularly maintained. As long as fire hoses are recognized in NFPA 10 (6.2.1.4) as an acceptable alternative for up to 1/2 of the required complement of class A rated fire extinguishers, it is important that NFPA 10 also require that those fire hoses be properly maintained. NFPA 1962 - Standard for the Care, Use, Inspection, Service Testing, and Replacement of Fire Hose, Couplings, Nozzles, and Fire Hose Appliances - details the maintenance requirements for fire hoses.

Response Message:
Public Input No. 335-NFPA 10-2015 [Section No. 6.2.1.4.1]
7.7.1 Wheeled Unit Hoses.
Discharge hoses on wheeled-type fire extinguishers shall be completely uncoiled and examined for damage annually.

7.7.1.1* Wheeled Unit Hoses.
Discharge hoses on wheeled extinguishers shall be coiled in a manner to prevent kinks and to allow rapid deployment in accordance with the manufacturer's instructions.

7.7.1.1* Wheeled Unit Hoses.
Discharge hoses on wheeled extinguishers shall be coiled in a manner to prevent kinks and to allow rapid deployment in accordance with the manufacturer's instructions.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 22 10:09:59 EDT 2015

Committee Statement

Committee Statement: Editorial.
Response Message:
Public Input No. 252-NFPA 10-2014 [Section No. 7.6.2]
7.8.1.3.5
In no case shall an extinguisher be recharged without hydrostatic testing if it is beyond its specified hydrostatic test date.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [Not Specified]
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 22 10:55:03 EDT 2015

Committee Statement

Committee Statement: The revised text more clearly defines the requirement.
Response Message:
Public Input No. 253-NFPA 10-2014 [Section No. 7.7.1.3.5]
A.4.1.1
Listed and labeled halon portable fire extinguishers currently comply with this standard and have demonstrated compliance with the requirements of UL 1093, Standard for Halogenated Agent Fire Extinguishers, which also includes fire testing and rating criteria. As a result of the Montreal Protocol on Substances that Deplete the Ozone Layer, UL has withdrawn UL 1093. This does not imply that extinguishers that are listed and labeled to the requirements of UL 1093 are unsafe for use as fire extinguishers, nor does it mean that UL or the EPA is requiring that halon extinguishers be removed from service. It does mean that UL will not accept new designs of halon extinguishers for testing or UL listing. It also means that no changes or updates are allowed to models that are currently listed and that had previously demonstrated compliance with UL 1093.

Extinguisher manufacturers are allowed to manufacture their current design of UL-listed halon extinguishers with the UL listing mark until October 2025. Halon extinguishers currently in use will continue to be listed beyond the 2025 date and should be permitted to be used to comply with the requirements of this standard when installed, inspected, and maintained in accordance with this standard.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Wed Apr 22 13:15:38 EDT 2015

Committee Statement

Committee Statement: Halon extinguishers currently in use will continue to be listed beyond the 2025 date and should be permitted to be used to comply with the requirements of this standard when installed, inspected, and maintained in accordance with this standard.

Response Message:
Public Input No. 254-NFPA 10-2014 [Section No. A.4.1.1]
Most All buildings have Class A fire hazards. In any occupancy, there could be a predominant hazard as well as special hazard areas requiring supplemental protection extinguishers with ratings to match those hazards. For example, a hospital will generally have need for Class A fire extinguishers covering patient rooms, corridors, offices, and so forth, but will need Class B fire extinguishers in laboratories and where flammable anesthetics are stored or handled, Class C fire extinguishers in electrical switch gear or generator rooms, and Class K extinguishers in kitchens.
First Revision No. 46-NFPA 10-2015 [Section No. A.5.5.1.1.2]

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [Not Specified]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Wed Apr 22 13:23:07 EDT 2015

Committee Statement

Committee Statement: Paragraph A.5.5.1.2 is moved to A.5.5.2, which is more appropriate.

Response Message:

Public Input No. 326-NFPA 10-2015 [Section No. A.5.5.1.2]
A.5.5.6

Delicate electronic equipment includes, but is not limited to, data processing, computers, CAD, CAM, robotics, and reproduction equipment. Use of fire extinguishers containing other extinguishing agents can damage beyond repair both the equipment at the source of the fire and related equipment in the immediate vicinity of the fire. Where occupancies are required to have extinguishers installed, this section is applicable to areas where the electronic equipment is located. Delicate electronic equipment includes, but is not limited to telecommunications, computers, servers, robotics, and reproduction equipment.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 22 13:24:53 EDT 2015

Committee Statement

Committee Statement: NFPA 10 is an installation standard. Where extinguishers are required by an occupancy document, this provision applies to the areas where delicate electronic equipment is located. The equipment owner should not be removing this equipment where it is required.

Response Message:
Public Input No. 295-NFPA 10-2014 [Section No. A.5.5.6]
A.6.1.1
The following items affect distribution of portable fire extinguishers:

1. Area and arrangement of the building occupancy conditions
2. Severity of the hazard
3. Anticipated classes of fire
4. Other protective systems or devices
5. Distances to be traveled to reach fire extinguishers

In addition, the following factors should be considered:

1. Anticipated rate of fire spread
2. Intensity and rate of heat development
3. Smoke contributed by the burning materials

Accessibility of a fire to close approach with portable fire extinguishers

Wheeled fire extinguishers have additional agent and range and should be considered for areas where the additional protection is needed. Portable fire extinguishers offer the occupant a means to assist in evacuation of a building or occupancy. They are useful to knock down the fire if it occurs along the evacuation route. If possible, the individual property should be surveyed for actual protection requirements.
### A.6.1.3.10

In addition to providing storage, extinguisher cabinets provide protection for extinguishers and prevent accidental bumping. The cabinet cavity must be big enough to accommodate the extinguisher, so the extinguisher must be selected before selecting the cabinet. The final selection of the cabinet should allow adequate room for the extinguisher to be easily removed. Certain fire-resistance-rated cabinets are intended for installation into 1-hour and 2-hour fire-resistance-rated walls. Cabinets that are not fire-resistance-rated make the entire fire-resistance-rated wall noncompliant, so only surface mounted cabinets or fire-resistance-rated cabinets are appropriate for installation in fire-resistance-rated walls.

### Submitter Information Verification

**Submitter Full Name:** Sonia Barbosa  
**Organization:** [ Not Specified ]  
**Street Address:**  
**City:**  
**State:**  
**Zip:**  
**Submittal Date:** Fri May 01 10:48:04 EDT 2015

### Committee Statement

**Committee Statement:** There is much misunderstanding in the field regarding the selection of extinguisher cabinets. Providing explanatory material will help with safety in the field.

**Response Message:**

Public Input No. 300-NFPA 10-2014 [New Section after A.6.1.3.10]
A.7.2.1.2
Inspections should be performed on extinguishers 12 times per year, at least once per month regular intervals not exceeding 31 days.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 22 14:36:14 EDT 2015

Committee Statement

Committee Statement: The annex material has been updated to correlate with the requirements of the main body.
Response Message: Public Input No. 31-NFPA 10-2013 [Section No. A.7.2.1.2]
A.7.3.2.2
Where a safety seal or tamper indicator is missing, it can be evidence that the fire extinguisher has been used and, therefore, it should be removed from service. Extreme caution should be exercised before replacing a tamper seal on a non-rechargeable fire extinguisher.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Wed Apr 22 14:52:22 EDT 2015

Committee Statement

Committee Statement: Tamper seals on non-rechargeable extinguishers are not to be removed for maintenance; therefore, the only reason to remove a tamper seal is to use the extinguisher. If the tamper seal is not on the extinguishers, it should be removed from service.

Response Message:
Public Input No. 255-NFPA 10-2014 [Section No. A.7.3.2.2]
The following procedure permits rapid removal of the hose by one person without kinking of the hose and without obstruction of flow of the extinguishing agent:

1. Form a **standard** loop over the hose supports [*see Figure A.7.7.1.1(a)*].

2. Follow with a reverse loop over the hose supports, so that the hose passes behind the loop [*see Figure A.7.7.1.1(b)*].

3. Repeat steps (1) and (2), alternating **standard loops and reverse loops**, until all hose is coiled on the support [*see Figure A.7.7.1.1(c)*].

4. Adjust the coil so that the nozzle is in the downward position [*see Figure A.7.7.1.1(d)*]. Hose coiled in this manner pulls off free of twists.

5. Place the nozzle in the holder with the handle forward in the closed position [*see Figure A.7.7.1.1(e)*].

**Figure A.7.7.1.1(a) Counterclockwise Loop.**

**Figure A.7.7.1.1(b) Reverse Loop.**
Figure A.7.1.1(c) Procedures in Figure A.7.6.2(a) and Figure A.7.6.2(b) Continued.
Figure A.7.7.1.1(d) Nozzle in Downward Position.
Figure A.7.7.1.1(e) Nozzle in Holder.
Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 22 14:56:15 EDT 2015

Committee Statement

Committee Statement: The revision clarifies the provided instructions.
Response Message:

Public Input No. 322-NFPA 10-2015 [Section No. A.7.6.2]
A.7.11

A number of states have regulations requiring an internal marking of an extinguisher that is used to verify if the verification-of-service collar is installed to show that an extinguisher has been depressurized, if the valve has been removed, and if a complete maintenance has been performed. The verification-of-service collar design also requires that the valve be removed before the collar can be attached to the extinguisher. The collar provides the authorities having jurisdiction with a more convenient visual proof that the extinguisher has been disassembled and that maintenance most likely has been performed.

All extinguishers are to have the valve removed for hydrostatic testing and are to be subsequently recharged before they are returned to service. To be valid, the date on the verification-of-service collar should always be the same as or more recent than the date on the hydrostatic test label.

Figure A.7.11 provides a guide to the design of a verification-of-service collar.

Figure A.7.11 Design of a Verification-of-Service Collar.

Submitter Information Verification

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Submittal Date: Wed Apr 22 15:34:31 EDT 2015

Committee Statement

Committee Statement: The revision updates the explanation for verification-of-service collar.
Response Message: Public Input No. 323-NFPA 10-2015 [Section No. A.7.10]
Markings should be applied by decals that are durable and resistant to color fading (see Figure B.1.1). The color separation identification for the markings is as follows:

- (1) Picture symbol objects are white.
- (2) Background borders are white.
- (3) Background for “YES” symbols is blue.
- (4) Background for symbols with slash mark (“NO”) is black.
- (5) Class of fire letters and wording is black.
- (6) Slash mark for black background symbols is red.

**Figure B.1.1 Recommended Marking System.**
### Supplemental Information

<table>
<thead>
<tr>
<th>File Name</th>
<th>Description</th>
</tr>
</thead>
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<tr>
<td>10-FR57.pdf</td>
<td>Add pictograph to Figure B.1.1 in the 3rd position, between Class A B and Class B C.</td>
</tr>
</tbody>
</table>

### Submitter Information Verification

- **Submitter Full Name:** Barry Chase
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- **Street Address:**
- **City:**
- **State:**
- **Zip:**
- **Submittal Date:** Wed Apr 22 15:38:51 EDT 2015

---

Note: Recommended colors, per PMS (Pantone Matching System), include the following:

- BLUE — 299
- RED — Warm Red
<table>
<thead>
<tr>
<th>Committee Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Committee Statement:</strong></td>
</tr>
</tbody>
</table>

**Response Message:**

Public Input No. 256-NFPA 10-2014 [Section No. B.2.1]
B.2.2
Letter-shaped symbol markings, as previously recommended, are shown in Figure B.2.2. Note that fire extinguishers suitable for more than one class of fire should be identified by multiple symbols placed in a horizontal sequence.

Figure B.2.2 Letter-Shaped Symbol Markings.

- **A**: Ordinary Combustibles
- **B**: Flammable Liquids
- **C**: Electrical Equipment
- **D**: Combustible Metals

Extinguishers suitable for Class A fires should be identified by a triangle containing the letter “A.” If colored, the triangle is colored green.

Extinguishers suitable for Class B fires should be identified by a square containing the letter “B.” If colored, the square is colored red.

Extinguishers suitable for Class C fires should be identified by a circle containing the letter “C.” If colored, the circle is colored blue.

Extinguishers suitable for fires involving metals should be identified by a five-pointed star containing the letter “D.” If colored, the star is colored yellow.

*Recommended colors, per PMS (Pantone Matching System), include the following:
GREEN — Basic Green
RED — 192 Red
BLUE — Process Blue
YELLOW — Basic Yellow*

Submitter Information Verification

Submitter Full Name: Barry Chase
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Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 22 15:54:32 EDT 2015

Committee Statement

Committee Statement: Since the system was previously recommended, this sentence should be presented in the past tense.

Response Message:
Public Input No. 320-NFPA 10-2015 [Section No. B.2.2]
C.3.2.1
The most popular type is the 21⁄2 gal (9.46 L) stored-pressure water fire extinguisher. These fire extinguishers are being used to replace inverting types of water fire extinguishers (soda acid and cartridge-operated water), which are no longer manufactured. An important advantage of the stored-pressure water type, as opposed to the inverting type, is its ability to be discharged intermittently. Some models are suitable for use at freezing conditions when charged as specified on the nameplate.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address:
City:
State:
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Submittal Date: Wed Apr 22 15:59:43 EDT 2015

Committee Statement

Committee Statement: The revision deletes dated material.
Response Message:
Public Input No. 315-NFPA 10-2015 [Section No. C.3.2.1]
C.3.5.2
In general, bromotrifluoromethane (Halon 1301) fire extinguishers have features and characteristics similar to those of carbon dioxide fire extinguishers in that they are suitable for cold weather installation and leave no residue. Halon 1301 fire extinguishers are listed for Class B and Class C fires. Compared to carbon dioxide on a weight-of-agent basis, bromotrifluoromethane (Halon 1301) is at least as effective. When discharged, the agent is in the combined form of a gas/mist. To some extent, windy conditions or strong air currents could make extinguishment difficult by causing the rapid dispersal of the agent.

Submitter Information Verification
Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 22 16:02:29 EDT 2015

Committee Statement
Committee Statement: The revision deletes dated material. Halon 1301 extinguishers had limited use by the military and are not generally available today.
Response Message: Public Input No. 316-NFPA 10-2015 [Section No. C.3.5.2]
C.3.5.3 Fire extinguishers containing a mixture of Halon 1211 and Halon 1301 share properties of the other halogenated agent–type fire extinguishers, such as leaving no residue after use and minimizing thermal shock. The mixture of halogenated agents discharges in the form of a gas/mist, with the ratio of gas to mist increasing with higher ratios of Halon 1301 to Halon 1211. The discharge range likewise is affected by the ratio of Halon 1301 to Halon 1211, with the range decreasing as the proportion of Halon 1301 increases. To some extent, windy conditions or strong air currents could make extinguishment difficult by causing the rapid dispersal of the agent.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address: 
City: 
State: 
Zip: 
Submittal Date: Wed Apr 22 16:07:07 EDT 2015

Committee Statement

Committee Statement: The revision deletes dated material. Halon 1211 extinguishers pressurized with Halon 1301 are generally not available today.
Response Message:
Public Input No. 317-NFPA 10-2015 [Section No. C.3.5.3]
Public Input No. 318-NFPA 10-2015 [Section No. C.3.5.3]
D.4.1.6 Fire Pails, Drums with Pails, and Bucket Tanks.

D.4.1.6.1 Small water supplies applied with fire pails are of limited fire-extinguishing value. The following combinations are considered as possessing two units of extinguishing potential (2-A) for Class A fires:

- Five 12 qt (11 L) water-filled standard fire pails
- Six 10 qt (9 L) water-filled standard fire pails
- Drum, cask, or barrel of approximately 55 gal (208 L) capacity, with at least three standard fire pails attached
- Bucket tanks of 25 gal to 55 gal (95 L to 208 L) capacity, with five 12 qt (11 L) or six 10 qt (9 L) fire pails immersed therein

D.4.1.6.2 Standard fire pails are made of galvanized steel of at least No. 24 USS gauge, with rounded bottoms welded in place or otherwise suitably reinforced, furnished with stamped ears welded in place, and with strong wire bail and loose-fitting metal covers to exclude debris and retard evaporation.

D.4.1.6.3 Casks, drums, or barrels should preferably be of metal of No. 24 USS gauge thickness or better and should have covers. Fire pails can be hung on sides of the containers or immersed therein. Pails, casks, drums, or bucket tanks should be painted bright red with the word “FIRE” stenciled in large letters on their outside with black or other contrasting colored paint. If antifreezing solution is used, the surfaces of pails, drums, or bucket tanks should be coated with red lead or oil, followed by a coat of asphalt-base paint. Casks should be heavily coated with pitch.

D.4.1.6.4 When located where continued temperatures below 40°F (4°C) could be encountered, containers should be filled with an antifreeze solution consisting of 75 percent to 80 percent calcium chloride (free from magnesium chloride) dissolved in water. Table D.4.1.6.4 shows the approximate temperature at which various solutions will freeze.

Table D.4.1.6.4 Antifreeze Solutions [10 gal (37.9 L)]

<table>
<thead>
<tr>
<th>Approx Freezing Temp (°F)</th>
<th>Water</th>
<th>Calcium Chloride</th>
<th>Specific Gravity</th>
<th>Degrees-Baume</th>
</tr>
</thead>
<tbody>
<tr>
<td>-10</td>
<td>34</td>
<td>20</td>
<td>9.1</td>
<td>1.139</td>
</tr>
<tr>
<td>0</td>
<td>32</td>
<td>25</td>
<td>11.3</td>
<td>1.175</td>
</tr>
<tr>
<td>-10</td>
<td>30</td>
<td>29  ½</td>
<td>13.4</td>
<td>1.205</td>
</tr>
<tr>
<td>-20</td>
<td>30</td>
<td>33 ½</td>
<td>15.2</td>
<td>1.228</td>
</tr>
<tr>
<td>-30</td>
<td>30</td>
<td>36 ½</td>
<td>16.6</td>
<td>1.246</td>
</tr>
<tr>
<td>-40</td>
<td>30</td>
<td>40</td>
<td>18.1</td>
<td>1.263</td>
</tr>
</tbody>
</table>

Note: This solution should not be used in extinguishers. Only solutions supplied by the manufacturers should be used in stored-pressure and cartridge-operated water extinguishers and in pump tank extinguishers where an antifreeze solution is desired.

Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
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Committee Statement

Committee Statement: Fire pails, drums with pails and bucket tanks are rarely if ever used, and should not be taking the place of portable fire extinguishers. In addition, this language is outside the scope of this standard – “1.1* Scope. The provisions of this standard apply to the selection, installation, inspection, maintenance, recharging, and testing of portable fire extinguishers and Class D extinguishing agents.”

D.4.4.2 Bromochlorodifluoromethane / Bromotrifluoromethane (Halon 1211/1301) Mixtures.

Fire extinguishers of this type are available in capacities from 1 lb to 20 lb (0.45 kg to 9 kg), having fire extinguishment ratings from 1-B:C to 4-A:80-B:C. The halogenated agent mixture is retained under pressure in a liquid state and is self-expelling. Some of these fire extinguishers are superpressurized with nitrogen. Upon actuation, the vapor pressure causes the agent to expand so that the discharge stream is in the form of a gas/mist. These extinguishers have a horizontal stream range of 3 ft to 18 ft (0.9 m to 5.5 m) that is not affected by wind as much as carbon dioxide and Halon 1301 are. Deep-seated Class A fires could need to be broken apart to effect complete extinguishment. On Class B fires, the discharge is applied in a side-to-side motion, progressing toward the back of the fire. (See Figure D.4.4.2.)

Figure D.4.4.2 Halon 1211/1301 Extinguishers.

Submitter Information Verification

Submitter Full Name: Barry Chase
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Street Address: 
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State: 
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Submittal Date: Wed Apr 22 16:16:11 EDT 2015

Committee Statement

Committee Statement: The revision deletes dated material. Halon 1211 extinguishers pressurized with Halon 1301 are generally not available today.
Response Message: Public Input No. 319-NFPA 10-2015 [Section No. D.4.4.2]
D.4.5 Dry Chemical Types.
Dry chemical fire extinguishers (sodium bicarbonate, potassium bicarbonate, potassium bicarbonate-urea base, bicarbonate-urea base, or potassium chloride base) are intended primarily for use on Class B and Class C fires. Dry chemical fire extinguishers (multipurpose ammonium phosphate base) are intended for use on Class A, Class B, and Class C fires. There are two methods whereby a dry chemical agent can be discharged from a fire extinguisher shell, depending on the basic design of the fire extinguisher. They are the cartridge/cylinder-operated method and the stored-pressure method. Regardless of fire extinguisher design, the method of agent application is basically the same. Stored-pressure fire extinguishers are available in capacities from 1 lb to 30 lb (0.5 kg to 14 kg) for hand fire extinguishers and 125 kg to 250 lb (57 kg to 113.5 kg) for wheeled fire extinguishers. Cartridge/cylinder-operated fire extinguishers are available in capacities from 4 lb to 30 lb (1.8 kg to 14 kg) for hand fire extinguishers and 45 lb to 350 lb (20 kg to 159 kg) for wheeled fire extinguishers.

Dry chemical fire extinguishers are also available in nonrechargeable, nonrefillable types that contain the agent and expellant gas in a single, nonreusable, factory-filled container. Most dry chemical fire extinguishers having ratings of 20-B and less will discharge their contents in 8 seconds to 20 seconds. Fire extinguishers with higher ratings could take as long as 30 seconds. Therefore, since there is little time for experimentation, it is important that the operator be prepared to apply the agent correctly at the outset. All dry chemical fire extinguishers can be carried and operated simultaneously and can be discharged intermittently. The discharge stream has a horizontal range of 5 ft to 30 ft (1.5 m to 9.2 m), depending on fire extinguisher size. When used on outdoor fires, maximum effectiveness can be achieved when the direction of the wind is on the back of the operator. [See Figure D.4.5(a) and Figure D.4.5(b).]

Figure D.4.5(a) Stored-Pressure Dry Chemical Extinguisher.

![Stored-Pressure Dry Chemical Extinguisher](image)

Figure D.4.5(b) Cartridge-Operated Dry Chemical Extinguisher.

![Cartridge-Operated Dry Chemical Extinguisher](image)

Special long-range nozzles are available where potential fire-fighting conditions could require greater distance. These nozzles are also useful on pressurized gas or liquid fires, or where strong winds prevail. All dry chemical agents can be used at the same time that water (straight stream or fog) is being applied. The use of dry chemical fire extinguishers on wet energized electrical equipment (such as rain-soaked...
utility poles, high-voltage switch gear, and transformers) can aggravate electrical leakage problems. The dry chemical, in combination with moisture, provides an electrical path that can reduce the effectiveness of insulation protection. The removal of all traces of dry chemical from such equipment after extinguishment is recommended. [See Figure D.4.5(c).]

Figure D.4.5(c) Stored-Pressure Dry Chemical Extinguisher with Fixed Nozzle.

Fire extinguishers with a Class B rating can extinguish a fire involving combustible cooking media (vegetable or animal oils and fats). Only fire extinguishers having a Class K rating are recommended for use on cooking grease fires.

D.4.5.1 Ordinary Dry Chemical Extinguishers (Class B and Class C Fires).
Hand fire extinguishers of this type are available with fire-extinguishing ratings of 1-B:C to 160-B:C and as wheeled models having fire extinguishment ratings from 80-B:C to 640-B:C. The fire extinguishing agent used is a specially treated material in a finely divided form. Types of agents available include sodium bicarbonate base, potassium bicarbonate base, potassium chloride base, and potassium bicarbonate urea base. Some formulations of these agents are specially treated to be relatively compatible for use with air foam (mechanical foam). For use on flammable liquid fires, the stream should be directed at the base of the flame. Best results are generally obtained by attacking the near edge of the fire and progressing toward the back of the fire by moving the nozzle rapidly with a side-to-side sweeping motion. Care should also be taken not to direct the initial discharge directly at the burning surface at close range [less than 5 ft to 8 ft (1.5 m to 2.4 m)] because the high velocity of the stream can cause splashing or scattering of the burning material, or both. Although not listed for use on Class A fires, ordinary dry chemical can be used to rapidly knock down the flames. Once the flames are extinguished, the operator can kick or poke apart the fire debris, to assist and hasten the natural cooling of the burning embers. Hot spots or small areas that reignite can be controlled with short intermittent bursts of agent. Water should then be applied to extinguish burning embers or deep-seated hot spots. It is recommended that this method of extinguishment be attempted only if the operator has had training and experience in this technique.

Fire extinguishers with a Class B rating can extinguish a fire involving combustible cooking media (vegetable or animal oils and fats). Only fire extinguishers having a Class K rating are recommended for use on cooking grease fires.
D.4.5.2 Multipurpose Dry Chemical Extinguishers (Class A, Class B, and Class C Fires).

Fire extinguishers of this type contain an ammonium phosphate base agent. Hand fire extinguishers are available with fire extinguishment ratings of 1-A to 20-A and 10-B:C to 120-B:C, and wheeled models have fire extinguishment ratings of 20-A to 40-A and 60-B:C to 320-B:C. Multipurpose agents are used in exactly the same manner as ordinary dry chemical agents on Class B fires. For use on Class A fires, the multipurpose agent has the additional characteristic of softening and sticking when in contact with hot surfaces. In this way, it adheres to burning materials and forms a coating that smothers and isolates the fuel from air. When applying the agent, it is important to try to coat all burning areas in order to eliminate or minimize the number of small embers that could be a potential source of reignition. The agent itself has little cooling effect, and, because of its surface coating characteristic, it cannot penetrate below the burning surface. For this reason, extinguishment of deep-seated fires might not be accomplished unless the agent is discharged below the surface or the material is broken apart and spread out.

Fire extinguishers with a Class B rating can extinguish a fire involving combustible cooking media (vegetable or animal oils and fats). Only fire extinguishers having a Class K rating are recommended for use on cooking grease fires.

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Submittal Date: Wed Apr 22 16:22:17 EDT 2015

Committee Statement

Committee Statement: Potassium bicarbonate urea base, sodium bicarbonate urea base, and potassium chloride extinguishers are not available. Class B rated extinguishers may or may not extinguish a Class K fire. The smallest wheeled unit currently offered is 50 lb.

Response Message:  
Public Input No. 258-NFPA 10-2014 [Section No. D.4.5]
Public Input No. 305-NFPA 10-2014 [Section No. D.4.5 [Excluding any Sub-Sections]]
Public Input No. 260-NFPA 10-2014 [Section No. D.4.5.1]
Public Input No. 261-NFPA 10-2014 [Section No. D.4.5.2]
F.4.1
The following types of fire extinguishers are recommended for installation and use in family dwellings and living units:

1. Dry chemical
2. Water, AFFF, FFFP, antifreeze, wetting agent
   - Halogenated agent
3. Carbon dioxide
4. General use residential fire extinguisher
5. Special purpose residential fire extinguisher

Submitter Information Verification

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Street Address:
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Zip:
Submittal Date: Wed Apr 22 16:41:41 EDT 2015

Committee Statement

Committee Statement: Halogenated agents are not approved for residential use under the US EPA's SNAP program.

Response Message:
The following types of extinguishers are considered obsolete and should be removed from service and replaced:

1. Soda acid types
2. Chemical foam (excluding film-forming agents)
3. Vaporizing liquid - Carbon tetrachloride, methyl bromide, and chlorobromomethane (CBM)
4. Cartridge-operated water
5. Cartridge-operated loaded stream
6. Copper or brass shell fire extinguishers (excluding pump tanks) joined by soft solder or rivets
7. Extinguishers rated prior to 1955 and marked B-1, C-1 on the nameplate
8. Fire extinguishers not listed or labeled

Submitter Information Verification

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Submittal Date: Wed Apr 22 16:31:36 EDT 2015

Committee Statement

Committee Statement: Number (3), as written, eliminates all vaporizing liquid extinguishing agents. There are currently numerous types of vaporizing liquid clean extinguishing agents in use today, i.e. Halon 1211 and Halotron 1. Though these agents may be categorized as Halogenated Agents, they still also fall under the broader general category of “vaporizing liquids”.

Response Message:
Public Input No. 336-NFPA 10-2015 [Section No. F.4.2]
G.2 Example.
A fire extinguisher is rated and classified 4-A:20-B:C, which imparts the following information:

(1) It should extinguish approximately twice as much Class A fire as a 2-A-rated fire extinguisher [2½ gal (9.46 L) water].

(2) It should extinguish approximately 20 times as much Class B fire as a 1-B-rated fire extinguisher.

(3) It is suitable for use on energized electrical equipment.

Currently, laboratories classify fire extinguishers for use on Class A fires with the following ratings: 1-A, 2-A, 3-A, 4-A, 6-A, 10-A, 20-A, 30-A, and 40-A. Effective June 1, 1969, fire extinguishers classified for use on Class B fires have the following ratings: 1-B, 2-B, 5-B, 10-B, 20-B, 30-B, 40-B, 60-B, 80-B, 120-B, 160-B, 240-B, 320-B, 480-B, and 640-B. Ratings from 1-A to 20-A and 1-B to 20-B, inclusive, are based on indoor fire tests; ratings at or above 30-A and 30-B are based on outdoor fire tests.

For Class B fires, it should be recognized that the amount of fire that can be extinguished by a particular fire extinguisher is related to the degree of training and experience of the operator. For fire extinguishers classified for use on Class C fires, no number is used, since Class C fires are essentially either Class A or Class B fires involving energized electrical wiring and equipment. Other than when being discharged from an extinguisher, water-based agents are conductive, and agent pooling after discharge might present additional hazard concerns. The size of the different suitable fire extinguishers installed should be commensurate with the size and extent of the Class A or Class B components, or both, of the electrical hazard being protected.

For fire extinguishers classified for use on Class D fires, no number is used. The relative effectiveness of these fire extinguishers for use on specific combustible metal fires is detailed on the fire extinguisher nameplate.

Fire extinguishers that are effective on more than one class of fire have multiple letter and number-letter classifications and ratings.

The equivalency for Class B extinguishers rated under the rating classification system used prior to 1955 is given in Table G.2.

### Table G.2: Class B Rating Equivalencies

<table>
<thead>
<tr>
<th>Extinguisher Type and Capacity</th>
<th>Pre-1955 Rating</th>
<th>Equivalency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foam (gal)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2½</td>
<td>B-1</td>
<td>2-B</td>
</tr>
<tr>
<td>5</td>
<td>B-1</td>
<td>5-B</td>
</tr>
<tr>
<td>12</td>
<td>B</td>
<td>10-B</td>
</tr>
<tr>
<td>33</td>
<td>B</td>
<td>20-B</td>
</tr>
<tr>
<td>Carbon Dioxide (lb)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Under 7</td>
<td>B-2</td>
<td>1-B</td>
</tr>
<tr>
<td>7</td>
<td>B-2</td>
<td>2-B</td>
</tr>
<tr>
<td>10 to 12</td>
<td>B-2</td>
<td>2-B</td>
</tr>
<tr>
<td>15 to 20</td>
<td>B-1</td>
<td>5-B</td>
</tr>
<tr>
<td>25 to 26</td>
<td>B-1</td>
<td>10-B</td>
</tr>
<tr>
<td>50</td>
<td>B-1</td>
<td>10-B</td>
</tr>
<tr>
<td>75</td>
<td>B-1</td>
<td>10-B</td>
</tr>
<tr>
<td>100</td>
<td>B</td>
<td>10-B</td>
</tr>
<tr>
<td>Dry Chemical (lb)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 to 6 ¼</td>
<td>B-2</td>
<td>2-B</td>
</tr>
<tr>
<td>7 ½</td>
<td>B-2</td>
<td>5-B</td>
</tr>
<tr>
<td>10 to 15</td>
<td>B-1</td>
<td>5-B</td>
</tr>
<tr>
<td>20</td>
<td>B-1</td>
<td>10-B</td>
</tr>
<tr>
<td>30</td>
<td>B-1</td>
<td>20-B</td>
</tr>
<tr>
<td>Extinguisher Type and Capacity</td>
<td>Pre-1955 Rating</td>
<td>Equivalency</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>-----------------</td>
<td>-------------</td>
</tr>
<tr>
<td>75 and up</td>
<td>B</td>
<td>40-B</td>
</tr>
</tbody>
</table>

For SI units, 1 gal = 3.785 L; 1 lb = 0.454 kg.

For extinguishers classified under the system used prior to 1955, the pre-1955 classifications of C, C-1, and C-2 are equivalent to the current C classification.

Carbon dioxide extinguishers with metal horns do not carry any C classification.

Submitter Information Verification

Submitter Full Name: Barry Chase
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Street Address: 
City: 
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Zip: 
Submittal Date: Wed Apr 22 16:43:48 EDT 2015

Committee Statement

Committee Statement: The ratings system prior to 1955 is outdated and has no effect on current standards; extinguishers manufactured prior to 1955 should be removed from service in the interest of public safety, as there have not been OEM parts available for decades.

Response Message:
Public Input No. 272-NFPA 10-2014 [Section No. G.2]
H.2 Health and Safety Conditions That Affect Selection.
When a fire extinguisher is being selected, consideration should be given to the health and safety hazards involved in its maintenance and use, as described in the following items:

1. For confined spaces, prominent caution labels on the fire extinguisher, warning signs at entry points, provision for remote application, extra-long-range fire extinguisher nozzles, special ventilation, provision of breathing apparatus and other personal protective equipment, and adequate training of personnel are among the measures that should be considered.

2. Although halogenated agent–type fire extinguishers contain agents whose vapor has a low toxicity, their decomposition products can be hazardous. When using these fire extinguishers in unventilated places, such as small rooms, closets, motor vehicles, or other confined spaces, operators and others should avoid breathing the gases produced by thermal decomposition of the agent.

3. Carbon dioxide fire extinguishers contain an extinguishing agent that will not support life when used in sufficient concentration to extinguish a fire. The use of this type of fire extinguisher in an unventilated space can dilute the oxygen supply. Prolonged occupancy of such spaces can result in loss of consciousness due to oxygen deficiency.

4. Fire extinguishers not rated for Class C hazards (e.g., water, antifreeze, loaded stream, AFFF, FFFP, wetting agent, and foam) present a shock hazard if used on fires involving energized electrical equipment.

5. When used in a small unventilated area, dry chemical fire extinguishers can reduce visibility for a period of up to several minutes. Dry chemical discharged in an area can also clog filters in air-cleaning systems.

6. A dry chemical fire extinguisher containing ammonium compounds should not be used on oxidizers that contain chlorine. The reaction between the oxidizer and the ammonium salts can produce the explosive compound nitrogen trichloride (NCl₃).

7. Halogenated extinguishers should not be used on fires involving oxidizers, since they can react with the oxidizer.

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

Table H.2 summarizes the characteristics of fire extinguishers and can be used as an aid in selecting fire extinguishers in accordance with Chapter 5. The ratings given are those that were in effect at the time this standard was prepared. Current listings should be consulted for up-to-date ratings.

Table H.2 Characteristics of Extinguishers

<table>
<thead>
<tr>
<th>Extinguishing Agent</th>
<th>Method of Operation</th>
<th>Capacity</th>
<th>Horizontal Range of Stream</th>
<th>Approximate Time of Discharge</th>
<th>Protection Required Below 40°F (4°C)</th>
<th>UL or ULC Classifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Stored-pressure</td>
<td>6 L</td>
<td>30 to 40 ft</td>
<td>40 sec</td>
<td>Yes</td>
<td>1-A</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure or</td>
<td>2 ½ gal</td>
<td>30 to 40 ft</td>
<td>1 min</td>
<td>Yes</td>
<td>2-A</td>
</tr>
<tr>
<td></td>
<td>pump</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pump</td>
<td>4 gal</td>
<td>30 to 40 ft</td>
<td>2 min</td>
<td>Yes</td>
<td>3-A</td>
</tr>
<tr>
<td></td>
<td>Pump</td>
<td>5 gal</td>
<td>30 to 40 ft</td>
<td>2 to 3 min</td>
<td>Yes</td>
<td>4-A</td>
</tr>
<tr>
<td>Water (wetting</td>
<td>Stored-pressure</td>
<td>1 ½ gal</td>
<td>20 ft</td>
<td>30 sec</td>
<td>Yes</td>
<td>2-A</td>
</tr>
<tr>
<td>agent)</td>
<td>Stored-pressure</td>
<td>25 gal</td>
<td>35 ft</td>
<td>1 ½ min</td>
<td>Yes</td>
<td>10-A</td>
</tr>
<tr>
<td></td>
<td>(wheeled)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>45 gal</td>
<td>35 ft</td>
<td>2 min</td>
<td>Yes</td>
<td>30-A</td>
</tr>
<tr>
<td>Extinguishing Agent</td>
<td>Method of Operation</td>
<td>Capacity</td>
<td>Horizontal Range of Stream</td>
<td>Approximate Time of Discharge</td>
<td>Protection Required Below 40°F (4°C)</td>
<td>UL or ULC Classifications</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------</td>
<td>----------</td>
<td>-----------------------------</td>
<td>------------------------------</td>
<td>--------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Stored-pressure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Loaded-stream</strong></td>
<td>Stored-pressure</td>
<td>2 ½-gal (wheeled)</td>
<td>30 to 40 ft</td>
<td>1 min</td>
<td>No</td>
<td>2-A</td>
</tr>
<tr>
<td>Stored-pressure</td>
<td>33-gal (wheeled)</td>
<td>50 ft</td>
<td></td>
<td>3 min</td>
<td>No</td>
<td>20-A</td>
</tr>
<tr>
<td><strong>AFFF, FFFF</strong></td>
<td>Stored-pressure</td>
<td>2 ½-gal (wheeled)</td>
<td>20 to 25 ft</td>
<td>50 sec</td>
<td>Yes</td>
<td>3-A:20 to 40-B</td>
</tr>
<tr>
<td>Stored-pressure</td>
<td>6-</td>
<td>20 to 25 ft</td>
<td>50 sec</td>
<td>Yes</td>
<td>2-A:10-B</td>
<td></td>
</tr>
<tr>
<td>Nitrogen cylinder</td>
<td>33-gal</td>
<td>30 ft</td>
<td></td>
<td>1 min</td>
<td>Yes</td>
<td>20-A:160-B</td>
</tr>
<tr>
<td><strong>Carbon-dioxide</strong></td>
<td>Self-expelling</td>
<td>2 ½ to 5 lb</td>
<td>3 to 8 ft</td>
<td>8 to 30 sec</td>
<td>No</td>
<td>1 to 5-B:C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 to 15 lb</td>
<td>3 to 8 ft</td>
<td>8 to 30 sec</td>
<td>No</td>
<td>2 to 10-B:C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 lb</td>
<td>3 to 8 ft</td>
<td>10 to 30 sec</td>
<td>No</td>
<td>10-B:C</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 to 100 lb (wheeled)</td>
<td>3 to 10 ft</td>
<td>10 to 30 sec</td>
<td>No</td>
<td>10 to 20-B:C</td>
</tr>
<tr>
<td><strong>Regular dry chemical (sodium bicarbonate)</strong></td>
<td>Stored-pressure</td>
<td>1 to 2 ½ lb</td>
<td>5 to 8 ft</td>
<td>8 to 12 sec</td>
<td>No</td>
<td>2 to 10-B:C</td>
</tr>
<tr>
<td>Cartridge or stored-pressure</td>
<td>2 ¾ to 5 lb</td>
<td>5 to 20 ft</td>
<td>8 to 25 sec</td>
<td>No</td>
<td>5 to 20-B:C</td>
<td></td>
</tr>
<tr>
<td>Cartridge or stored-pressure</td>
<td>6 to 30 lb</td>
<td>5 to 20 ft</td>
<td>10 to 25 sec</td>
<td>No</td>
<td>10 to 160-B:C</td>
<td></td>
</tr>
<tr>
<td>Stored-pressure</td>
<td>50 lb (wheeled)</td>
<td>20 ft</td>
<td></td>
<td>35 sec</td>
<td>No</td>
<td>160-B:C</td>
</tr>
<tr>
<td>Nitrogen cylinder or stored-pressure</td>
<td>75 to 350 lb (wheeled)</td>
<td>15 to 45 ft</td>
<td>20 to 105 sec</td>
<td>No</td>
<td>40 to 320-B:C</td>
<td></td>
</tr>
<tr>
<td><strong>Purple-K dry chemical (potassium bicarbonate)</strong></td>
<td>Cartridge or stored-pressure</td>
<td>2 to 5 lb</td>
<td>5 to 12 ft</td>
<td>8 to 10 sec</td>
<td>No</td>
<td>5 to 30-B:C</td>
</tr>
<tr>
<td>Cartridge or stored-pressure</td>
<td>6 ½ to 10 lb</td>
<td>5 to 20 ft</td>
<td>8 to 20 sec</td>
<td>No</td>
<td>10 to 80-B:C</td>
<td></td>
</tr>
<tr>
<td>Cartridge or stored-pressure</td>
<td>16 to 30 lb</td>
<td>10 to 20 ft</td>
<td>8 to 25 sec</td>
<td>No</td>
<td>40 to 120-B:C</td>
<td></td>
</tr>
<tr>
<td>Cartridge or stored-pressure</td>
<td>48 to 50 lb (wheeled)</td>
<td>20 ft</td>
<td>30 to 35 sec</td>
<td>No</td>
<td>120 to 160-B:C</td>
<td></td>
</tr>
<tr>
<td>Nitrogen cylinder or stored-pressure</td>
<td>125 to 315 lb (wheeled)</td>
<td>15 to 45 ft</td>
<td>30 to 80 sec</td>
<td>No</td>
<td>80 to 640-B:C</td>
<td></td>
</tr>
<tr>
<td>Extinguishing Agent</td>
<td>Method of Operation</td>
<td>Capacity</td>
<td>Horizontal Range of Stream</td>
<td>Approximate Time of Discharge</td>
<td>Protection Required Below 40°F (4°C)</td>
<td>UL or ULC Classifications</td>
</tr>
<tr>
<td>---------------------</td>
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<td>---------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>Super K dry chemical (potassium chloride)</td>
<td>Cartridge or stored-pressure</td>
<td>2 to 5 lb</td>
<td>5 to 8 ft</td>
<td>8 to 10 sec</td>
<td>No</td>
<td>5 to 10-B:C</td>
</tr>
<tr>
<td></td>
<td>Cartridge or stored-pressure</td>
<td>5 to 9 lb</td>
<td>8 to 12 ft</td>
<td>10 to 15 sec</td>
<td>No</td>
<td>20 to 40-B:C</td>
</tr>
<tr>
<td></td>
<td>Cartridge or stored-pressure</td>
<td>9 ½ to 20 lb</td>
<td>10 to 15 ft</td>
<td>15 to 20 sec</td>
<td>No</td>
<td>40 to 60-B:C</td>
</tr>
<tr>
<td></td>
<td>Cartridge or stored-pressure</td>
<td>40 ½ to 30 lb</td>
<td>5 to 20 ft</td>
<td>10 to 25 sec</td>
<td>No</td>
<td>60 to 80-B:C</td>
</tr>
<tr>
<td></td>
<td>Cartridge or stored-pressure</td>
<td>125 to 200 lb (wheeled)</td>
<td>15 to 45 ft</td>
<td>30 to 40 sec</td>
<td>No</td>
<td>160-B:C</td>
</tr>
<tr>
<td>Multipurpose/ABC dry chemical (ammonium phosphate)</td>
<td>Stored-pressure</td>
<td>1 to 5 lb</td>
<td>5 to 12 ft</td>
<td>8 to 10 sec</td>
<td>No</td>
<td>1 to 3-A ⁹ and 2 to 10-B:C</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure or cartridge</td>
<td>2 ½ to 9 lb</td>
<td>5 to 12 ft</td>
<td>8 to 15 sec</td>
<td>No</td>
<td>1 to 4-A and 10 to 40-B:C</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure or cartridge</td>
<td>9 to 17 lb</td>
<td>5 to 20 ft</td>
<td>10 to 25 sec</td>
<td>No</td>
<td>2 to 20-A and 10 to 80-B:C</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure or cartridge</td>
<td>17 to 30 lb</td>
<td>5 to 20 ft</td>
<td>10 to 25 sec</td>
<td>No</td>
<td>3 to 20-A and 30 to 120-B:C</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure or cartridge</td>
<td>45 to 50 lb (wheeled)</td>
<td>20 ft</td>
<td>25 to 35 sec</td>
<td>No</td>
<td>20 to 30-A and 80 to 160-B:C</td>
</tr>
<tr>
<td></td>
<td>Nitrogen cylinder or stored-pressure</td>
<td>440 to 315 lb (wheeled)</td>
<td>15 to 45 ft</td>
<td>30 to 60 sec</td>
<td>No</td>
<td>20 to 40-A and 60 to 320-B:C</td>
</tr>
<tr>
<td>Dry chemical (foam compatible)</td>
<td>Cartridge or stored-pressure</td>
<td>4 ⅓ to 9 lb</td>
<td>5 to 20 ft</td>
<td>8 to 10 sec</td>
<td>No</td>
<td>10 to 20-B:C</td>
</tr>
<tr>
<td></td>
<td>Cartridge or stored-pressure</td>
<td>9 to 27 lb</td>
<td>5 to 20 ft</td>
<td>10 to 25 sec</td>
<td>No</td>
<td>20 to 30-B:C</td>
</tr>
<tr>
<td></td>
<td>Cartridge or stored-pressure</td>
<td>18 to 30 lb</td>
<td>5 to 20 ft</td>
<td>10 to 25 sec</td>
<td>No</td>
<td>40 to 60-B:C</td>
</tr>
<tr>
<td></td>
<td>Nitrogen cylinder or stored-pressure</td>
<td>450 to 350 lb (wheeled)</td>
<td>15 to 45 ft</td>
<td>20 to 150 sec</td>
<td>No</td>
<td>80 to 240-B:C</td>
</tr>
<tr>
<td>Dry chemical (potassium bicarbonate-urea based)</td>
<td>Stored-pressure</td>
<td>5 to 11 lb</td>
<td>11 to 22 ft</td>
<td>18 sec</td>
<td>No</td>
<td>40 to 80-B:C</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>9 to 23 lb</td>
<td>15 to 30 ft</td>
<td>17 to 33 sec</td>
<td>No</td>
<td>60 to 160-B:C</td>
</tr>
<tr>
<td>Extinguishing Agent</td>
<td>Method of Operation</td>
<td>Capacity</td>
<td>Horizontal Range of Stream</td>
<td>Approximate Time of Discharge</td>
<td>Protection Required Below 40°F (4°C)</td>
<td>UL or ULC Classifications^a</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------</td>
<td>----------</td>
<td>---------------------------</td>
<td>-------------------------------</td>
<td>--------------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Wet chemical</td>
<td>Stored-pressure</td>
<td>3 L</td>
<td>8 to 12 ft</td>
<td>30 sec</td>
<td>No</td>
<td>K</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>6 L</td>
<td>8 to 12 ft</td>
<td>35 to 45 sec</td>
<td>No</td>
<td>K</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>2 1/2 gal</td>
<td>8 to 12 ft</td>
<td>75 to 85 sec</td>
<td>No</td>
<td>K</td>
</tr>
<tr>
<td>Halon 1211</td>
<td>Stored-pressure</td>
<td>0.9 to 2 lb</td>
<td>6 to 10 ft</td>
<td>8 to 10 sec</td>
<td>No</td>
<td>1 to 2-B:C</td>
</tr>
<tr>
<td>(bromochlorodifluoromethane)</td>
<td>Stored-pressure</td>
<td>2 to 3 lb</td>
<td>6 to 10 ft</td>
<td>8 to 10 sec</td>
<td>No</td>
<td>5-B:C</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>5 1/2 to 9 lb</td>
<td>9 to 15 ft</td>
<td>8 to 15 sec</td>
<td>No</td>
<td>1-A:10-B:C</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>13 to 22 lb</td>
<td>14 to 16 ft</td>
<td>10 to 18 sec</td>
<td>No</td>
<td>2 to 4-A and 20 to 80-B:C</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>50 lb</td>
<td>35 ft</td>
<td>30 sec</td>
<td>No</td>
<td>10-A:120-B:C</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure (wheeled)</td>
<td>150 lb</td>
<td>20 to 35 ft</td>
<td>30 to 44 sec</td>
<td>No</td>
<td>30-A:160 to 240-B:C</td>
</tr>
<tr>
<td>Halon 1211/1301</td>
<td>Stored-pressure or self-expelling</td>
<td>0.9 to 5 lb</td>
<td>3 to 12 ft</td>
<td>8 to 10 sec</td>
<td>No</td>
<td>1 to 10-B:C</td>
</tr>
<tr>
<td>(bromochlorodifluoromethane bromotrifluoromethane) mixtures</td>
<td>Stored-pressure</td>
<td>9 to 20 lb</td>
<td>10 to 18 ft</td>
<td>10 to 22 sec</td>
<td>No</td>
<td>4-A:10-B:C to 4-A:80-B:C</td>
</tr>
<tr>
<td>Halocarbon-type</td>
<td>Stored-pressure</td>
<td>4.4 to 150 lb</td>
<td>6 to 35 ft</td>
<td>9 to 38 sec</td>
<td>No</td>
<td>4-B:C to 10-A:80-B:C</td>
</tr>
</tbody>
</table>

For SI units: 1 gal = 3.79 L; 1 lb = 2.2 kg; 1 ft = 0.305 m.

Note: Halon should be used only where its unique properties are deemed necessary.

^a UL and ULC ratings as of July 24, 1987. Readers concerned with subsequent ratings should review the pertinent lists and supplements issued by these laboratories: Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096, or Underwriters' Laboratories of Canada, 7 Underwriters Road, Toronto, ON, M1R 3B4, Canada.

^b Carbon dioxide extinguishers with metal horns do not carry a C classification.

^c Some small extinguishers containing ammonium phosphate–based dry chemical do not carry an A classification.

Table H.2 Characteristics of Extinguishers
<table>
<thead>
<tr>
<th>Extinguishing Agent</th>
<th>Method of Operation</th>
<th>Capacity</th>
<th>Horizontal Range of Stream</th>
<th>Approximate Time of Discharge</th>
<th>Protection Required Below 40°F (4°C)</th>
<th>UL or ULC Classifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water (wetting agent)</td>
<td>Pump</td>
<td>4 gal</td>
<td>30 to 40 ft</td>
<td>2 min</td>
<td>Yes</td>
<td>3-A</td>
</tr>
<tr>
<td></td>
<td>Pump</td>
<td>5 gal</td>
<td>30 to 40 ft</td>
<td>2 to 3 min</td>
<td>Yes</td>
<td>4-A</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>1 1/2 gal</td>
<td>20 ft</td>
<td>30 sec</td>
<td>Yes</td>
<td>2-A</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>25 gal (wheeled)</td>
<td>35 ft</td>
<td>1 1/2 min</td>
<td>Yes</td>
<td>10-A</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>45 gal (wheeled)</td>
<td>35 ft</td>
<td>2 min</td>
<td>Yes</td>
<td>30-A</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>60 gal (wheeled)</td>
<td>35 ft</td>
<td>2 1/2 min</td>
<td>Yes</td>
<td>40-A</td>
</tr>
<tr>
<td>Loaded stream</td>
<td>Stored-pressure</td>
<td>2 1/2 gal</td>
<td>30 to 40 ft</td>
<td>1 min</td>
<td>No</td>
<td>2-A</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>33 gal (wheeled)</td>
<td>50 ft</td>
<td>3 min</td>
<td>No</td>
<td>20-A</td>
</tr>
<tr>
<td>Water mist</td>
<td>Stored-pressure</td>
<td>1.8 to 2.5 gal</td>
<td>5 to 12 ft</td>
<td>50 to 80 sec</td>
<td>Yes</td>
<td>2-A:C</td>
</tr>
<tr>
<td>AFFF, FFFP</td>
<td>Stored-pressure</td>
<td>2 1/2 gal</td>
<td>20 to 25 ft</td>
<td>50 sec</td>
<td>Yes</td>
<td>3-A:20 to 40-B</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>6 L</td>
<td>20 to 25 ft</td>
<td>50 sec</td>
<td>Yes</td>
<td>2-A:10-B</td>
</tr>
<tr>
<td></td>
<td>Nitrogen cylinder</td>
<td>33 gal</td>
<td>30 ft</td>
<td>1 min</td>
<td>Yes</td>
<td>20-A:160-B</td>
</tr>
<tr>
<td>Carbon dioxide</td>
<td>Self-expelling</td>
<td>2 1/2 to 5 lb</td>
<td>3 to 8 ft</td>
<td>8 to 30 sec</td>
<td>No</td>
<td>1 to 5-B:C</td>
</tr>
<tr>
<td></td>
<td>Self-expelling</td>
<td>10 to 15 lb</td>
<td>3 to 8 ft</td>
<td>8 to 30 sec</td>
<td>No</td>
<td>2 to 10-B:C</td>
</tr>
<tr>
<td></td>
<td>Self-expelling</td>
<td>20 lb</td>
<td>3 to 8 ft</td>
<td>10 to 30 sec</td>
<td>No</td>
<td>10-B:C</td>
</tr>
<tr>
<td></td>
<td>Self-expelling</td>
<td>50 to 100 lb (wheeled)</td>
<td>3 to 10 ft</td>
<td>10 to 30 sec</td>
<td>No</td>
<td>10 to 20-B:C</td>
</tr>
<tr>
<td>Regular dry chemical (sodium bicarbonate)</td>
<td>Stored-pressure</td>
<td>1 to 2 1/2 lb</td>
<td>5 to 8 ft</td>
<td>8 to 12 sec</td>
<td>No</td>
<td>2 to 10-B:C</td>
</tr>
<tr>
<td></td>
<td>Cartridge or stored-pressure</td>
<td>2 3/4 to 5 lb</td>
<td>5 to 20 ft</td>
<td>8 to 25 sec</td>
<td>No</td>
<td>5 to 20-B:C</td>
</tr>
<tr>
<td></td>
<td>Cartridge or stored-pressure</td>
<td>6 to 30 lb</td>
<td>5 to 20 ft</td>
<td>10 to 25 sec</td>
<td>No</td>
<td>10 to 160-B:C</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>50 lb (wheeled)</td>
<td>20 ft</td>
<td>35 sec</td>
<td>No</td>
<td>160-B:C</td>
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<td>Nitrogen cylinder or stored-pressure</td>
<td>75 to 350 lb (wheeled)</td>
<td>15 to 45 ft</td>
<td>20 to 105 sec</td>
<td>No</td>
<td>40 to 320-B:C</td>
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<tr>
<td>Purple K dry chemical (potassium bicarbonate)</td>
<td>Cartridge or stored-pressure</td>
<td>2 to 5 lb</td>
<td>5 to 12 ft</td>
<td>8 to 10 sec</td>
<td>No</td>
<td>5 to 30-B:C</td>
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<tr>
<td>Extinguishing Agent</td>
<td>Method of Operation</td>
<td>Capacity</td>
<td>Horizontal Range of Stream</td>
<td>Approximate Time of Discharge</td>
<td>Protection Required Below 40°F (4°C)</td>
<td>UL or ULC Classifications</td>
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<tr>
<td>Cartridge or stored-pressure</td>
<td>5 ½ to 10 lb</td>
<td>5 to 20 ft</td>
<td>8 to 20 sec</td>
<td>No</td>
<td>10 to 80-B:C</td>
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<tr>
<td>Cartridge or stored-pressure</td>
<td>16 to 30 lb</td>
<td>10 to 20 ft</td>
<td>8 to 25 sec</td>
<td>No</td>
<td>40 to 120-B:C</td>
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<td>Cartridge or stored-pressure</td>
<td>48 to 50 lb (wheeled)</td>
<td>20 ft</td>
<td>30 to 35 sec</td>
<td>No</td>
<td>120 to 160-B:C</td>
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<td>Nitrogen cylinder or stored-pressure</td>
<td>125 to 315 lb (wheeled)</td>
<td>15 to 45 ft</td>
<td>30 to 80 sec</td>
<td>No</td>
<td>80 to 640-B:C</td>
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<td>Multipurpose/ABC dry chemical (ammonium phosphate)</td>
<td>Stored-pressure</td>
<td>1 to 5 lb</td>
<td>5 to 12 ft</td>
<td>8 to 10 sec</td>
<td>No</td>
<td>1 to 3-A and 2 to 10-B:C</td>
</tr>
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<td>Stored-pressure or cartridge</td>
<td>2 ½ to 9 lb</td>
<td>5 to 12 ft</td>
<td>8 to 15 sec</td>
<td>No</td>
<td>1 to 4-A and 10 to 40-B:C</td>
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<td>Stored-pressure or cartridge</td>
<td>9 to 17 lb</td>
<td>5 to 20 ft</td>
<td>10 to 25 sec</td>
<td>No</td>
<td>2 to 20-A and 10 to 80-B:C</td>
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<td>Stored-pressure or cartridge</td>
<td>17 to 30 lb</td>
<td>5 to 20 ft</td>
<td>10 to 25 sec</td>
<td>No</td>
<td>3 to 20-A and 30 to 120-B:C</td>
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<td>Stored-pressure or cartridge</td>
<td>45 to 50 lb (wheeled)</td>
<td>20 ft</td>
<td>25 to 35 sec</td>
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<td>20 to 30-A and 80 to 160-B:C</td>
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<td>Nitrogen cylinder or stored-pressure</td>
<td>125 to 350 lb (wheeled)</td>
<td>15 to 45 ft</td>
<td>30 to 60 sec</td>
<td>No</td>
<td>20 to 40-A and 60 to 320-B:C</td>
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<td>Dry chemical (foam compatible)</td>
<td>Cartridge or stored-pressure</td>
<td>4 ¾ to 9 lb</td>
<td>5 to 20 ft</td>
<td>8 to 10 sec</td>
<td>No</td>
<td>10 to 20-B:C</td>
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<td>Cartridge or stored-pressure</td>
<td>9 to 27 lb</td>
<td>5 to 20 ft</td>
<td>10 to 25 sec</td>
<td>No</td>
<td>20 to 30-B:C</td>
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<tr>
<td>Cartridge or stored-pressure</td>
<td>18 to 30 lb</td>
<td>5 to 20 ft</td>
<td>10 to 25 sec</td>
<td>No</td>
<td>40 to 60-B:C</td>
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<tr>
<td>Nitrogen cylinder or stored-pressure</td>
<td>150 to 350 lb (wheeled)</td>
<td>15 to 45 ft</td>
<td>20 to 150 sec</td>
<td>No</td>
<td>80 to 240-B:C</td>
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<tr>
<td>Wet chemical</td>
<td>Stored-pressure</td>
<td>3 L</td>
<td>8 to 12 ft</td>
<td>30 sec</td>
<td>No</td>
<td>K</td>
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<td>Stored-pressure</td>
<td>6 L</td>
<td>8 to 12 ft</td>
<td>35 to 45 sec</td>
<td>No</td>
<td>K</td>
<td></td>
</tr>
<tr>
<td>Extinguishing Agent</td>
<td>Method of Operation</td>
<td>Capacity</td>
<td>Horizontal Range of Stream</td>
<td>Approximate Time of Discharge</td>
<td>Protection Required Below 40°F (4°C)</td>
<td>UL or ULC Classifications</td>
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<tr>
<td>Stored-pressure</td>
<td>2 ½ gal</td>
<td>8 to 12 ft</td>
<td>75 to 85 sec</td>
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<td>K</td>
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<tr>
<td>Halon 1211 (bromochlorodifluoromethane)</td>
<td>Stored-pressure</td>
<td>0.9 to 2 lb</td>
<td>6 to 10 ft</td>
<td>8 to 10 sec</td>
<td>No</td>
<td>1 to 2-B:C</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>2 to 3 lb</td>
<td>6 to 10 ft</td>
<td>8 to 10 sec</td>
<td>No</td>
<td>5-B:C</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>5 ½ to 9 lb</td>
<td>9 to 15 ft</td>
<td>8 to 15 sec</td>
<td>No</td>
<td>1-A:10-B:C</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>13 to 22 lb</td>
<td>14 to 16 ft</td>
<td>10 to 18 sec</td>
<td>No</td>
<td>2 to 4-A and 20 to 80-B:C</td>
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<td>Stored-pressure</td>
<td>50 lb</td>
<td>35 ft</td>
<td>30 sec</td>
<td>No</td>
<td>10-A:120-B:C</td>
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<td></td>
<td>Stored-pressure</td>
<td>150 lb (wheeled)</td>
<td>20 to 35 ft</td>
<td>30 to 44 sec</td>
<td>No</td>
<td>30-A:160 to 240-B:C</td>
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<tr>
<td>Halon 1211/1301 (bromochlorodifluoromethane bromotrifluoromethane) mixtures</td>
<td>Stored-pressure or self-expelling</td>
<td>0.9 to 5 lb</td>
<td>3 to 12 ft</td>
<td>8 to 10 sec</td>
<td>No</td>
<td>1 to 10-B:C</td>
</tr>
<tr>
<td></td>
<td>Stored-pressure</td>
<td>9 to 20 lb</td>
<td>10 to 18 ft</td>
<td>10 to 22 sec</td>
<td>No</td>
<td>1-A:10-B:C to 4-A:80-B:C</td>
</tr>
<tr>
<td>Halocarbon type</td>
<td>Stored-pressure</td>
<td>1.4 to 150 lb</td>
<td>6 to 35 ft</td>
<td>9 to 38 sec</td>
<td>No</td>
<td>1-B:C to 10-A:120-B:C</td>
</tr>
</tbody>
</table>

For SI units: 1 gal = 3.79 L; 1 lb = 2.2 kg; 1 ft = 0.305 m.

Note: Halon should be used only where its unique properties are deemed necessary.

aUL and ULC ratings as of July 24, 1987. Readers concerned with specific ratings should review the pertinent lists and supplements issued by these laboratories: Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096, or Underwriters’ Laboratories of Canada, 7 Underwriters Road, Toronto, ON, M1R 3B4, Canada. Readers concerned with specific ratings should review the pertinent lists issued by these laboratories: Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096, or Underwriters’ Laboratories of Canada, 7 Underwriters Road, Toronto, ON, M1R 3B4, Canada.

bCarbon dioxide extinguishers with metal horns do not carry a C classification.

cSome small extinguishers containing ammonium phosphate–based dry chemical do not carry an A classification.

Supplemental Information

<table>
<thead>
<tr>
<th>File Name</th>
<th>Description</th>
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<tr>
<td>10-FR68.docx</td>
<td>Changes to Table H.2</td>
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Submitter Information Verification

<table>
<thead>
<tr>
<th>Submitter Full Name:</th>
<th>Barry Chase</th>
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<tbody>
<tr>
<td>Organization:</td>
<td>[ Not Specified ]</td>
</tr>
<tr>
<td>Street Address:</td>
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</tr>
<tr>
<td>City:</td>
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</tbody>
</table>
Committee Statement

Committee Statement: Table H.2 has been updated to reflect current extinguishers.

Response Message:

- Public Input No. 263-NFPA 10-2014 [Section No. H.2]
- Public Input No. 264-NFPA 10-2014 [Section No. H.2]
Changes to Table H.2

-Delete row for Super K

-Delete row for Dry chemical (potassium bicarbonate urea based)

-Add row for Water mist after Loaded stream:

<table>
<thead>
<tr>
<th>Water Mist</th>
<th>Stored Pressure</th>
<th>1.8 to 2.5 gal</th>
<th>5-12 ft</th>
<th>50-80 sec</th>
<th>Yes</th>
<th>2A:C</th>
</tr>
</thead>
</table>

-Revise row for Multipurpose/ABC dry chemical:
  In row for “Nitrogen cylinder…”, change “110 to 315 lb” to “125 to 350 lb”

-Revise row for Halocarbon agent:
  Replace “10-A:80-B:C” with “10-A:120-B:C”

-Revise Note A:
  aUL and ULC ratings as of July 24, 1987. Readers concerned with specific subsequent ratings should review the pertinent lists and supplements issued by these laboratories: Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096, or Underwriters' Laboratories of Canada, 7 Underwriters Road, Toronto, ON, M1R 3B4, Canada.
K.1.1 NFPA Publications.

National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.


Submitter Information Verification

Submitter Full Name: Barry Chase
Organization: [ Not Specified ]
Street Address: [ Not Specified ]
Committee Statement

Update references. NFPA 851 was removed because it has been withdrawn and merged with NFPA 850.

Response Message:
Public Input No. 189-NFPA 10-2014 [Chapter K]
K.1.2 Other Publications.

K.1.2.1 NPCA ACA Publications.
National Paint and American Coatings Association, 1500 Rhode Island Avenue, NW, Washington, DC 20005.


K.1.2.2 CGA Publications.
Compressed Gas Association, 4221 Walney Road, 5th Floor 14501 George Carter Way, Suite 103, Chantilly, VA 20151-2923 1788.

CGA C-1, Methods of Hydrostatic for Pressure Testing of Compressed Gas Cylinders, 2006 2009.

K.1.2.3 UL Publications.
Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096.


K.1.2.4 ULC Publications.
Underwriters’ Laboratories, 7 Underwriters Road, Toronto, Ontario M1R 3A9, Canada.


K.1.2.5 UL/ULC Publications.
The following publications are binationally harmonized standards for Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062-2096, and Underwriters’ Laboratories of Canada, 7 Underwriters Road, Toronto, Ontario M1R 3A9, Canada.


Submitter Information Verification

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Zip:
Submittal Date: Mon Apr 20 15:03:43 EDT 2015

Committee Statement

Committee Statement: Update references.
Response Message: