Technical Committee on Portable Fire Extinguishers

M E M O R A N D U M

DATE: August 12, 2019

TO: Principal and Alternate Members of the Technical Committee on Portable Fire Extinguishers

FROM: Brian O'Connor, NFPA Staff Liaison

SUBJECT: **AGENDA – NFPA 10 First Draft Meeting (Annual 2021)**
September 24-26, 2019 Chicago, Illinois

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1. Call to Order – September 24, 2019, 8:00am CT
2. Introductions and Attendance
3. Chair's Comments and Agenda Review
4. NFPA Staff Liaison Presentation on NFPA Revision Process and A2021 Cycle
5. Approval of Previous Meeting Minutes (March 2016 Second Draft Meeting Minutes)
6. Preparation of the First Draft
   a. Review Public Inputs (140 received, including TIA 1423 & TIA 1378)
   b. Create First Revisions
7. Other Business
8. Next Meeting
9. Adjournment – No later than 1:00pm on September 26, 2019

Please submit requests for additional agenda items to the chair at least seven days prior to the meeting, and notify the chair and staff liaison as soon as possible if you plan to introduce any committee revisions at the meeting.

All NFPA Technical Committee meetings are open to the public. Please contact me for information on attending a meeting as a guest. Read NFPA's Regulations Governing Committee Projects (Section 3.3.3.3) for further information.

Additional Meeting Information:
See the Meeting Notice on the Document Information Page (www.nfpa.org/10) for meeting location details. If you have any questions, please feel free to contact **Yiu Lee**, *Project Administrator* at 617-984-7683 or by email YLee@nfpa.org.

C. Standards Administration

Annual 2021 Master Schedule

Process Stage	Process Step	Dates for TC	Dates for TC with CC
Public Input Stage (First Draft)	Public Input Closing Date*	6/26/2019	6/26/2019
	Final Date for TC First Draft Meeting	12/04/2019	9/04/2019
	Posting of First Draft and TC Ballot	1/22/2020	10/16/2019
	Final date for Receipt of TC First Draft ballot	2/12/2020	11/06/2019
	Final date for Receipt of TC First Draft ballot - recirc	2/19/2020	11/13/2019
	Posting of First Draft for CC Meeting		11/20/2019
	Final date for CC First Draft Meeting		1/02/2020
	Posting of First Draft and CC Ballot		1/22/2020
	Final date for Receipt of CC First Draft ballot		2/12/2020
	Final date for Receipt of CC First Draft ballot - recirc		2/19/2020
	Post First Draft Report for Public Comment	2/26/2020	2/26/2020
Comment Stage (Second Draft)	Public Comment Closing Date*	5/06/2020	5/06/2020
	Notice Published on Consent Standards (Standards that received no Comments) Note: Date varies and determined via TC ballot.		
	Appeal Closing Date for Consent Standards (Standards that received no Comments)		
	Final date for TC Second Draft Meeting	11/04/2020	7/29/2020
	Posting of Second Draft and TC Ballot	12/16/2020	9/09/2020
	Final date for Receipt of TC Second Draft ballot	1/06/2021	9/30/2020
	Final date for receipt of TC Second Draft ballot - recirc	1/13/2021	10/07/2020
	Posting of Second Draft for CC Meeting		10/14/2020
	Final date for CC Second Draft Meeting		11/25/2020
	Posting of Second Draft for CC Ballot		12/16/2020
	Final date for Receipt of CC Second Draft ballot		1/06/2021
	Final date for Receipt of CC Second Draft ballot - recirc		1/13/2021
	Post Second Draft Report for NITMAM Review	1/20/2021	1/20/2021
Tech Session Preparation (& Issuance)	**Notice of Intent to Make a Motion (NITMAM) Closing Date**	2/17/2021	2/17/2021
	Posting of Certified Amending Motions (CAMs) and Consent Standards	3/31/2021	3/31/2021
	Appeal Closing Date for Consent Standards	4/15/2021	4/15/2021
	SC Issuance Date for Consent Standards	4/26/2021	4/26/2021
Tech Session	Association Meeting for Standards with CAMs		
Appeals and Issuance	Appeal Closing Date for Standards with CAMs		
	SC Issuance Date for Standards with CAMs		

TC = Technical Committee or Panel
CC = Correlating Committee

As of 12/13/2017

NFPA Technical Committee on Portable Fire Extinguishers

Fall 2016 (2017 Edition) Second Draft Meeting
New Orleans, Louisiana
March 15-16, 2016

MEETING MINUTES

ATTENDANCE:

Chair:	Nathaniel Addleman	Addleman Engineering, TX	SE
Secretary:	Roy Kimball (Alt. to M. Conroy)	Brooks Equipment Company, NC	M
Staff Liaison:	Barry Chase	National Fire Protection Association, MA	-

Principals:	Darrin Bramwell	Eagan Fire Department, MN	E
	Dennis Brohmer	Tyco Fire Protection Products, WI	M
	Mark Conroy	Brooks Equipment Company, MA	M
	Thomas Farruggia	Illinois Fire & Safety Company, IL	IM
	Fred Goodnight	Amerex Corporation, AL (Rep. Compressed Gas Association)	M
	Carl Horst	Security Fire Equipment Co., GA (Rep. Georgia Association of Fire Safety Equipment Dealers, Inc.)	IM
	Norbert Makowka	National Association of Fire Equipment Distributors, IL	IM
	Louis Nash	US Coast Guard, DC	E
	J.R. Nerat	UTC/Badger Fire Protection, MI (Rep. NFPA Industrial Fire Protection Section)	M
	Lennon Peake	Koffel Associates, Inc., MD (Rep. American Society for Healthcare Engineering)	SE
	Scott Qualls	ProServe Fire Protection, Inc., NC	IM
	Blake Shugarman	Underwriters Laboratories, Inc., IL	RT
	Joseph Talbert	Aon Fire Protection Engineering, IL	I
	Jim Tidwell	Tidwell Code Consulting, TX (Rep. Fire Equipment Manufacturers' Association)	M
	Jeffery Werner	Dixmoor Fire Department, IL	E

Alternates: (*voting)	Chris Hendrix (Alt. to C. Horst)	Hendrix Fire Protection, GA (Rep. Georgia Association of Fire Safety Equipment Dealers, Inc.)	IM
	Guy Jones (Alt. to F. Goodnight)	Amerex Corporation, AL (Rep. Compressed Gas Association)	M
	*Peter Shank (Alt. to A. Brady)	Nuclear Service Organization, DE	I
	*Robert Taylor (Voting Alternate)	PRB Coal Users Group, IN (Rep. Edison Electric Institute)	U

Guests:	Paul Rivers	3M Corporation
	Craig Voelkert	Amerex Corporation

CALL TO ORDER

Meeting called to order by Nat Addleman, Chair, at 1:00 PM CDT March 15, 2016

CHAIR'S COMMENTS

Chair reviewed the agenda for the Second Draft meeting.

NFPA STAFF PRESENTATION

Staff gave a presentation on the Standards Development procedures, important dates remaining in this cycle, and the NFPA resources available to the committee members (www.NFPA.org/regs; Fire Protection Research Foundation; Document Information Pages).

APPROVAL OF PREVIOUS MEETING MINUTES

Minutes from the Fall 2016 First Draft meeting (April 21-23, 2015, Orlando, FL) were accepted as published.

NFPA 10 SECOND DRAFT

The committee acted on the public comments for NFPA 10 and developed second revisions. (See Second Draft Report)

- The task group on combustible metals (Talbert, Jones, Shugarman, Nerat) gave a report on the committee statement for PI309 and recommended that no further action was needed. The committee approved the report.

NFPA 408 SECOND DRAFT

The committee heard a presentation from the task group on NFPA 408

- The task group (Conroy, Nerat, Jones, Colton) gave a report concerning the contents of the 408 standard and how it pertains to the NFPA 10 committee's scope, the future of the 408 standard and the need to maintain consistency with the 10 standard. The committee acted to keep NFPA 408 a standalone document.
- A new task group (Jones – Chair, Brohmer, Makowka, Nerat, Rivers) was formed to determine who uses the 408 standard, and to get FAA, aircraft manufacturers, and/or airline operators involved in the committee.

Since no Public Comments were received on NFPA 408 and since the committee developed no Second Revisions, a Second Draft Report will not be published for NFPA 408. The First Draft will be forwarded to the Standards Council for issuance as a Consent Standard, in accordance with the Regulations Governing the Development of NFPA Standards.

OTHER BUSINESS

The committee reviewed input from the NFPA 59 Committee. Mr. Taylor agreed to meet with the gas industry members in April for more information and report back to staff.

The committee viewed an FAA training video on fire fighting for aircraft crewmembers.

ADJOURNMENT

No other business coming before the chair, the meeting was adjourned.

Submitted by Chuck Kimball, Committee Secretary

Public Input No. 52-NFPA 10-2019 [Global Input]

Remove ANSI from in front of all UL standards referenced in NFPA 10.

Statement of Problem and Substantiation for Public Input

Many years ago, UL preferred the ANSI/UL reference because there was a transition of traditional UL standards towards an ANSI standards development process.

Now, years later, a large majority of UL Standards are ANSI approved and follow the ANSI development and maintenance process. However, sometimes readers are confused because they don't understand the standards are actually UL standards, not developed by ANSI. There are many other references to standards promulgated by other standards development organizations where they are considered ANSI approved but do not include ANSI in the reference.

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
Organization: UL LLC
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 11:53:28 EDT 2019
Committee:

Public Input No. 53-NFPA 10-2019 [Global Input]

Remove the terms “Standard for” or “Subject” from in front of all UL standards referenced in NFPA 10.

Statement of Problem and Substantiation for Public Input

The terms are redundant and unnecessary. All references to UL are standards.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 52-NFPA 10-2019 [Global Input]	

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
Organization: UL LLC
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 07 11:58:05 EDT 2019
Committee:

Public Input No. 29-NFPA 10-2018 [Section No. 2.3]

2.3 Other Publications.

2.3.1 ACA Publications.

American Coatings Association, 1500 Rhode Island Avenue, NW, Washington, DC 20005.

Hazardous Materials Identification System (HMIS), Implementational Manual, 4th edition.

2.3.2 ASTM Publications.

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

ASTM D5391, *Standard Test for Electrical Conductivity and Resistivity of a Flowing High Purity Water Sample*, 2014.

2.3.3 CGA Publications.

Compressed Gas Association, 14501 George Carter Way, Suite 103, Chantilly, VA 20151-1788.

CGA C-1, *Methods for Pressure Testing Compressed Gas Cylinders*, 2016.

CGA G-10.1, *Commodity Specification for Nitrogen*, ~~2008~~ 20 **16** .

2.3.4 UL Publications.

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

UL 1093, *Standard for Halogenated Agent Fire Extinguishers*, 1995, revised 2008. **(Withdrawn)**

UL 1803, *Standard for Factory Follow-Up on Third Party Certified Portable Fire Extinguishers*, 2012**, revised 2017** .

2.3.5 ULC Publications.

Underwriters' Laboratories of Canada, 7 Underwriters Road, Toronto, ON M1R 3A9, Canada.

ULC CAN ~~/ULC~~ S512, *Standard for Halogenated Agent Hand and Wheeled Fire Extinguishers*, 2005, reaffirmed 2007.

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, ON M1R 3A9, Canada.

ANSI/UL 8, CAN/ULC-S554, *Water Based Agent Fire Extinguishers*, ~~2011~~ 201 **6** .

ANSI/UL 154, CAN/ULC-S503, *Standard for Carbon-Dioxide Fire Extinguishers*, **2005, revised** 2014.

ANSI/UL 299, CAN/ULC-S504, *Standard for Dry Chemical Fire Extinguishers*, 2012**, revised 2018** .

ANSI/UL 626, CAN/ULC-S507, *Standard for Water Fire Extinguishers*, ~~2012~~ **2005, revised** 201 **8** .

ANSI/UL 711, CAN/ULC-S508, *Standard for Rating and Fire Testing of Fire Extinguishers*, ~~2013~~ 201 **8** .

ANSI/UL 2129, CAN/ULC-S566, *Standard for Halocarbon Clean Agent Fire Extinguishers*, ~~2014~~ 201 **7** .

2.3.7 UN Publications.

United Nations, Publications Customer Service, PO Box 960, Herndon, VA 20172.

GHS, *Globally Harmonized System of Classification and Labeling of Chemicals*, ST/SG/AC.10/30/Rev. 6, 2015.

2.3.8 U.S. Government Publications.

U.S. Government Publishing Office, 732 North Capitol Street, NW, Washington, DC 20401-0001.

Title 49, Code of Federal Regulations, Part 180.209, "Requirements for Requalification of Specification Cylinders," 2015.

Title 49, Code of Federal Regulations, Part 180.213, "Requalification Markings," 2015.

2.3.9 Other Publications.

Merriam-Webster's Collegiate Dictionary, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003.

Statement of Problem and Substantiation for Public Input

Referenced current national consensus standard editions.

Submitter Information Verification

Submitter Full Name: Aaron Adamczyk
Organization: [Not Specified]
Street Address:
City:
State:
Zip:
Submittal Date: Sun Oct 28 18:01:22 EDT 2018
Committee: PFE-AAA

Public Input No. 54-NFPA 10-2019 [Section No. 2.3.5]

2.3.5 ULC Publications.

~~Underwriters' Laboratories of Canada, 7 Underwriters Road, Toronto, ON M1R 3A9, Canada.~~

ULC Standards, 171 Nepean Street, Suite 400, Ottawa, Ontario K2P 0B4 Canada

CAN/ULC-S512, *Standard for Halogenated Agent Hand and Wheeled Fire Extinguishers*, 2005, reaffirmed 2007.

Statement of Problem and Substantiation for Public Input

Update the publishing dates for each of the UL standards listed to reflect the most up to date edition.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 55-NFPA 10-2019 [Section No. 2.3.6]	
Public Input No. 57-NFPA 10-2019 [Section No. K.1.2.4]	
Public Input No. 58-NFPA 10-2019 [Section No. K.1.2.5]	

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
Organization: UL LLC
Street Address:
City:
State:
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Submittal Date: Fri Jun 07 12:04:23 EDT 2019
Committee: PFE-AAA

Public Input No. 157-NFPA 10-2019 [New Section after 2.3.6]

TITLE OF NEW CONTENT

Add to 2.3.4

UL-299D and UL-711A Listing standards for "Residential Special Purpose Kitchen" fire extinguishers.

Statement of Problem and Substantiation for Public Input

Substantiation

The Residential Special Purpose Kitchen fire extinguisher reference has existed within the NFPA-10 standard since the 1998 edition. The identification of these specific residential fire extingisher design, testing and listing standards are necessary to support existing NFPA-10 paragraph F.1.2, F.4.1 (5) and F.5.1 recommendations.

Submitter Information Verification

Submitter Full Name: J. R. Nerat
Organization: UTC/Badger Fire Protection
Affiliation: NFPA Industrial Section
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 25 11:23:06 EDT 2019
Committee: PFE-AAA

Public Input No. 55-NFPA 10-2019 [Section No. 2.3.6]

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, ON M1R 3A9,~~ ULC Standards, 171 Nepean Street, Suite 400, Ottawa, Ontario K2P 0B4 Canada .

ANSI/UL 8, CAN/ULC-S554, *Water Based Agent Fire Extinguishers*, ~~2011~~ 2016 .

ANSI/UL 154, CAN/ULC-S503, *Standard for Carbon-Dioxide Fire Extinguishers*, ~~2014~~ 2019 .

ANSI/UL 299, CAN/ULC-S504, *Standard for Dry Chemical Fire Extinguishers*, ~~2012~~ 2018 .

ANSI/UL 626, CAN/ULC-S507, *Standard for Water Fire Extinguishers*, ~~2012~~ 2017 .

ANSI/UL 711, CAN/ULC-S508, *Standard for Rating and Fire Testing of Fire Extinguishers*, ~~2013~~ 2018 .

ANSI/UL 2129, CAN/ULC-S566, *Standard for Halocarbon Clean Agent Fire Extinguishers*, ~~2014~~ 2017 .

Statement of Problem and Substantiation for Public Input

Update the publishing dates for each of the UL standards listed to reflect the most up to date edition and an update of ULC publications address.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 54-NFPA 10-2019 [Section No. 2.3.5]	
Public Input No. 57-NFPA 10-2019 [Section No. K.1.2.4]	
Public Input No. 58-NFPA 10-2019 [Section No. K.1.2.5]	

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
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Submittal Date: Fri Jun 07 12:06:07 EDT 2019
Committee: PFE-AAA

Public Input No. 70-NFPA 10-2019 [New Section after 3.3]

3.3.24* Rating.

A numerical value assigned to an extinguisher based on its fire-extinguishing capability.

A.3.3.24 Rating. The rating is required to be in accordance with ANSI/UL 711, CAN/ULC-S508.

Statement of Problem and Substantiation for Public Input

Added definition for extinguisher rating. Proposed definition and annex is taken from NFPA 408.

Submitter Information Verification

Submitter Full Name: Norbert Makowka
Organization: National Association of Fire E
Street Address:
City:
State:
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Submittal Date: Tue Jun 11 15:29:18 EDT 2019
Committee: PFE-AAA

Public Input No. 77-NFPA 10-2019 [New Section after 3.3.6.2]

TITLE OF NEW CONTENT

Type your content here ... **A.3.3.6.2** Closed recovery systems for halogenated agents with an ozone depleting potential (ODP) of 0.2 or greater should be listed for use with that agent. The system's supply or recharge and recovery container is capable of maintaining the agent in a sealed environment until it is reused or returned to the agent manufacturer.

Statement of Problem and Substantiation for Public Input

The explanatory material belongs in the annex.

Submitter Information Verification

Submitter Full Name: Jennifer Boyle
Organization: FEMA
Affiliation: FEMA
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 20 10:52:09 EDT 2019
Committee: PFE-AAA

Public Input No. 76-NFPA 10-2019 [Section No. 3.3.6.2]

3.3.6.2 Halogenated Closed Recovery System.

A system that provides for the transfer of halogenated agents between fire extinguishers, supply containers, and recharge and recovery containers so that none of the halogenated agent escapes to the atmosphere. ~~Closed recovery systems for halogenated agents with an ozone depleting potential (ODP) of 0.2 or greater should be listed for use with that agent. The system's supply or recharge and recovery container is capable of maintaining the agent in a sealed environment until it is reused or returned to the agent manufacturer.~~

Statement of Problem and Substantiation for Public Input

The explanatory materials belongs in the annex.

Submitter Information Verification

Submitter Full Name: Jennifer Boyle
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Street Address:
City:
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Submittal Date: Thu Jun 20 10:48:44 EDT 2019
Committee: PFE-AAA

Public Input No. 50-NFPA 10-2019 [Section No. 3.3.7.1]

3.3.7.1 High-Pressure Cylinder.

Cylinders (and cartridges) containing nitrogen, compressed air, carbon dioxide, or other gases at a service pressure higher than 500 psi (3447 kPa) at 70°F (21°C).

Statement of Problem and Substantiation for Public Input

This is a Style correction since in 3.3.7.2 the term that makes the difference between high pressure and low pressure cylinders is the service pressure. This is in order to have both 3.3.7.1 and 3.3.7.2 use the same terminology.

Submitter Information Verification

Submitter Full Name: Gilberto Jimenez
Organization: Extintores y Accesorios de Seguridad
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City:
State:
Zip:
Submittal Date: Sun Jun 02 17:09:46 EDT 2019
Committee: PFE-AAA

Public Input No. 78-NFPA 10-2019 [Section No. 3.3.9]

3.3.9* Dry Powder.

Solid materials in powder or granular form ~~designed to extinguish~~ intended for the extinguishment of Class D combustible metal fires by crusting, smothering, or heat-transferring means.

Statement of Problem and Substantiation for Public Input

Editorial

Submitter Information Verification

Submitter Full Name: Jennifer Boyle
Organization: FEMA
Affiliation: FEMA
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 20 10:53:43 EDT 2019
Committee: PFE-AAA

Public Input No. 59-NFPA 10-2019 [New Section after 3.3.10]

TITLE OF NEW CONTENT

A new section should be added that defines the local alarm device that indicates when an extinguisher is removed from its designated location. Electronic monitoring devices are completely different than "theft deterrent" devices and should not be combined in the definition section of the standard.

Statement of Problem and Substantiation for Public Input

Electronic monitoring of fire extinguishers accomplishes far more than just activating a local sounder at the device when the extinguisher is removed from its designated location. Adding the theft deterrent wording to the definition of electronic extinguisher monitoring would give the reader of the standard the impression that the two completely separate technologies are equivalent. This is not the case.
"Theft deterrent" technology has been available for years and only recently has been included in the Standard. If there is a case for these devices to be added into the Standard, then a separate definition of these devices and their functionality is required as their functionality is very limited in comparison to electronic extinguisher monitoring.

Submitter Information Verification

Submitter Full Name: James Rose
Organization: en-Gauge Inc.
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 10 09:53:59 EDT 2019
Committee: PFE-AAA

Public Input No. 60-NFPA 10-2019 [Section No. 3.3.10]

3.3.10* Electronic Monitoring.

Either a ~~local alarm device~~ local 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.

Statement of Problem and Substantiation for Public Input

The definition of alarm device in other Standards refers to devices associated with the automatic detection and notification. An alarm device will typically cause the evacuation of a facility. Because of this long standing definition of an alarm device in other NFPA Standards, the word alarm should be removed from the definition of Electronic monitoring.

Submitter Information Verification

Submitter Full Name: James Rose
Organization: en-Gauge Inc.
Street Address:
City:
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Submittal Date: Mon Jun 10 10:07:02 EDT 2019
Committee: PFE-AAA

Public Input No. 79-NFPA 10-2019 [Section No. 3.3.19]

3.3.19 Hydrostatic Testing.

Pressure testing of the extinguisher and certain hose assemblies to verify ~~its~~ strength against unwanted rupture.

Statement of Problem and Substantiation for Public Input

Section 8.8.3 requires certain hose assemblies to be hydrostatically tested.

Submitter Information Verification

Submitter Full Name: Jennifer Boyle
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Affiliation: FEMA
Street Address:
City:
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Zip:
Submittal Date: Thu Jun 20 10:59:03 EDT 2019
Committee: PFE-AAA

Public Input No. 158-NFPA 10-2019 [New Section after 3.3.23]

TITLE OF NEW CONTENT

Add new ANNEX paragraph for 3.3.23

A.3.3.23 Fire hazards needing to consider the selection and use of special fire extinguisher recommendations for pressure fire situations, are those where the forced release of flammable class "B" liquids or gases anticipated generally does not represent contained fuel release pressures under 5 pounds per square inch. Regulated LP-Gas lines within occupancies that supply fuel to appliances represent an example that by itself would not typically dictate the need for special class "B" protection coverages.

Statement of Problem and Substantiation for Public Input

Substantiation
The suggested new annex reference is necessary to help better clarify the types of pressure fire situations that should be addressing the existing special fire extinguisher references identified within paragraphs 5.5.1. and A.5.5.1. The 5 pound per square inch reference is from the indoor operating pipe pressure limitations identified in NFPA-58.

Submitter Information Verification

Submitter Full Name: J. R. Nerat
Organization: UTC/Badger Fire Protection
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 25 11:41:19 EDT 2019
Committee: PFE-AAA

Public Input No. 126-NFPA 10-2019 [New Section after 3.3.24]

TITLE OF NEW CONTENT

Insert after 3.3.24 as a new 3.3.25 (and adjust the numbering of the current 3.3.25, to accomodate change):

***"3.3.25 Reloading** . The replacement of an extinguishing agent storage container holding the amount of agent that is correct for the model of extinguisher, the replacement of a one-time use expellant gas container that is correct for the model of extinguisher and that has been sealed at the factory of manufacture, and the replacement of a tamper indicator."*

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

Kim R. Nessel
Rusoh Inc.

Submitter Information Verification

Submitter Full Name: Kim Nessel
Organization: Rusoh Inc

Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 24 12:27:00 EDT 2019
Committee: PFE-AAA

Public Input No. 129-NFPA 10-2019 [New Section after 3.3.25]

TITLE OF NEW CONTENT

Modify current 3.3.25 (which now is 3.3.26) as follows (*addition is in "quotation marks and italics".*)

3.3.2.6 Servicing. Performing maintenance, *"reloading"* , recharging, or hydrostatic testing on a fire extinguisher.

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

Kim R. Nessel
Rusoh Inc.

Submitter Information Verification

Submitter Full Name: Kim Nessel
Organization: Rusoh Inc
Street Address:
City:

State:
Zip:
Submittal Date: Mon Jun 24 14:01:13 EDT 2019
Committee: PFE-AAA

Public Input No. 21-NFPA 10-2018 [Section No. 3.4]

3.4 Fire Extinguisher Definitions.

3.4.1 Cartridge/Cylinder-Operated Fire Extinguisher.

A fire extinguisher in which the expellant gas is in a separate container from the agent storage container.

3.4.

~~2~~

2 Fast Flow (High Flow) Fire Extinguisher

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.

3.4.3 * Nonrechargeable (Nonrefillable) Fire Extinguisher.

A fire extinguisher that is intended to be used one time and not capable of or intended to be recharged and returned to service.

3.4.3 4 Portable Fire Extinguisher.

A portable device, carried or on wheels and operated by hand, containing an extinguishing agent that can be expelled under pressure for the purpose of suppressing or extinguishing fire.

3.4.4 5 * Rechargeable (Refillable) Fire Extinguisher.

A fire extinguisher capable of undergoing complete maintenance, including internal inspection of the pressure vessel, replacement of all substandard parts and seals, and hydrostatic testing.

3.4.5 6 Self-Expelling Fire Extinguisher.

A fire extinguisher in which the agent has sufficient vapor pressure at normal operating temperatures to expel itself.

3.4.6 7 Stored-Pressure Fire Extinguisher.

A fire extinguisher in which both the extinguishing agent and expellant gas are kept in a single container, and that includes a pressure indicator or gauge.

3.4.7 8 Water Mist Fire Extinguisher.

A fire extinguisher containing distilled or de-ionized water and employing a nozzle that discharges the agent in a fine spray.

3.4.8 9 Water-Type Fire Extinguisher.

A fire extinguisher containing water-based agents, such as water, film-forming foam agents (AFFF, FFFP), antifreeze, loaded stream, and wet chemical.

3.4.9 10 Wheeled Fire Extinguisher.

A portable fire extinguisher equipped with a carriage and wheels intended to be transported to the fire by one person. *(See A.5.3.2.7.)*

Statement of Problem and Substantiation for Public Input

Adding what the Fast Flow (High Flow) Fire Extinguisher is

.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 22-NFPA 10-2018 [Sections A.3.4.2, A.3.4.4]	

Submitter Information Verification

Submitter Full Name: Joseph King

Organization: LaGrange Fire Protection
Affiliation: AFSP
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City:
State:
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Submittal Date: Sun Sep 23 20:02:43 EDT 2018
Committee: PFE-AAA

Public Input No. 159-NFPA 10-2019 [Section No. 3.4.1]

Modify current 3.4.1 as follows (additions are in "quotation marks" and italic.)

3.4.1 Cartridge/Cylinder-Operated Fire Extinguisher.

A fire extinguisher in which the expellant gas is in a separate container from the agent storage container *"and is not capable of or intended to be a self-service fire extinguisher . "*

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

Kim R. Nessel
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Submittal Date: Tue Jun 25 11:43:20 EDT 2019
Committee: PFE-AAA

Public Input No. 41-NFPA 10-2019 [New Section after 3.4.4]

TITLE OF NEW CONTENT

3.4.4 Pump Type Fire Extinguisher. A fire extinguisher where the operator provides expelling energy by means of a pump and the vessel containing the agent is not pressurized.

Statement of Problem and Substantiation for Public Input

The standard does not provide a definition for pump tank fire extinguishers although they are addressed in several sections of Chapters 4, 7, and 8 as well annexes C, D, and F .

The proposed definition was taken from NFPA 10, Annex D.1.2.1 (4).

Submitter Information Verification

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Submittal Date: Thu May 30 14:46:08 EDT 2019
Committee: PFE-AAA

Public Input No. 128-NFPA 10-2019 [New Section after 3.4.5]

Insert after 3.4.5 as a new 3.4.6 (adjust the numbering of current 3.4.6, etc. to accomodate): (Additions are in "quotation marks and italics".)

*"**3.4.6 Self-Service Fire Extinguisher** . A fire extinguisher that is constructed of a non-metallic material resistant to corrosion, includes mechanical means to maintain a free-flowing condition of the extinguishing agent without disassembling the extinguisher, and is capable of undergoing reloading."*

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

Kim R. Nessel
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Submittal Date: Mon Jun 24 13:12:48 EDT 2019
Committee: PFE-AAA

Public Input No. 80-NFPA 10-2019 [Section No. 3.4.5]

3.4.5 Self-Expelling Fire Extinguisher.

A fire extinguisher in which the agent has sufficient vapor pressure at normal operating temperatures to expel itself. A.3.4.5 An example of a self-expelling extinguisher is a carbon dioxide extinguisher.

Statement of Problem and Substantiation for Public Input

It would help users of the standard if an example is provided.

Submitter Information Verification

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Affiliation: FEMA
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City:
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Zip:
Submittal Date: Thu Jun 20 11:01:51 EDT 2019
Committee: PFE-AAA

Public Input No. 171-NFPA 10-2019 [Section No. 4.1.1]

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 ANSI/UL 711, CAN/ULC-S508, *Standard for Rating and Fire Testing of Fire Extinguishers*, and one of the following applicable performance standards:

(1) Carbon dioxide types: ANSI/UL 154, CAN/ULC-S503, *Standard for Carbon-Dioxide Fire Extinguishers*

(2) Dry chemical types: ANSI/UL 299, CAN/ULC-S504, *Standard for Dry Chemical 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*

(7) *Residential Special Purpose Kitchen types: UL-299D Dry Chemical Fire Extinguishers For Residential Cooking Equipment and UL-711A, Fire Test Method for Portable Hand-Held Extinguishers Intended for Use On Residential Cooking Equipment.*

Statement of Problem and Substantiation for Public Input

Substantiation
The Residential Special Purpose Kitchen fire extinguisher reference has existed within the NFPA-10 standard since the 1998 edition. The identification of these specific residential fire extinguisher design, testing and listing standards are necessary to properly meet and support existing NFPA-10 paragraph F.1.2, F.4.1 (5) and F.5.1 recommendations.

Submitter Information Verification

Submitter Full Name: J. R. Nerat
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Affiliation: NFPA Industrial Section
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Submittal Date: Tue Jun 25 15:15:04 EDT 2019
Committee: PFE-AAA

Public Input No. 28-NFPA 10-2018 [Section No. 4.1.2 [Excluding any Sub-Sections]]

Each fire extinguisher shall be marked with the following on the nameplate or label to be UL/ULC Listed :

(1) Identification of the listing and labeling organization
(2) Product category indicating the type of extinguisher
(3) Extinguisher classification as indicated in Section 5.3
(4) Performance and fire test standards that the extinguisher meets or exceeds
(5) Serial number
(6) Service instructions
(7) Shall have UN 1044 Fire Extinguisher or UN 1013 Carbon Dioxide on the label

Additional Proposed Changes

File Name	Description	Approved
2929-obsolete.pdf	FEMA Document	
001.jpg	UL Document	
IMG_0043.JPG	Missing information	
ulstandardchanges.pdf	UL/ULC Buckeye	
bi-national-standards-update-8e6c1d76_1_.pdf	UL/ULC Amerex	
t118-0211_1_.pdf	UL/ULC Badger	
160059.pdf	PHMSA on UN 1044/ UN 1013	

Statement of Problem and Substantiation for Public Input

We have costumers who say that the fire extinguisher is still good even though the serial number or any service information in the nameplate is missing. We tell the they are obsolete, which we are told in class by the Badge rep the other day and in the 4.4.1 annex. So I would like to see to it that you add to it for liability reasons. Thank you.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 26-NFPA 10-2018 [Section No. 4.4.2]	

Submitter Information Verification

Submitter Full Name: Joseph King
Organization: LaGrange Fire Protection
Affiliation: AFSP
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Submittal Date: Sun Oct 21 11:37:55 EDT 2018
Committee: PFE-AAA

FEMA | the life safety group

Saving Lives, Protecting Property

REMOVAL FROM SERVICE OF OBSOLETE FIRE EXTINGUISHERS

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

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

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

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

FIRE EQUIPMENT MANUFACTURERS' ASSOCIATION *Executive Director:* **THOMAS ASSOCIATES, INC.**

1300 Sumner Avenue., Cleveland, Ohio 44115-2851 • Telephone: 216-241-7333 • Fax: 216-241-0105
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FEMA offers the following information to help clarify when a fire extinguisher should no longer be kept in service due to its lack of a recognized listing.

CODES & STANDARDS

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

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

The 1998 edition of NFPA 10 tells us that extinguishers "… shall be listed and labeled …" (1-4.3), "No fire extinguisher shall be converted from one type to another, nor shall any fire extinguisher be converted to use a different type of extinguishing agent …" (4-5.1.4), and that maintenance must be done using "… the proper types of tools, recharge materials, lubricants and manufacturer's recommended replacement parts or parts specifically listed for use in the fire extinguisher" (4-1.1). NFPA 10 further informs us that "…Only those agents specified on the nameplate or agents proven to have equal chemical composition, physical characteristics and fire extinguishing capabilities shall be used. Agents listed specifically for use with that extinguisher shall be considered to meet these requirements" (4-5.3.1).

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

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

In recent correspondence, which is attached, UL has clarified for us that an extinguisher would not be considered listed unless that extinguisher was serviced according to the manufacturer's manuals. Parts used for service must be those shown on the nameplate and in the manufacturer's manuals. Extinguisher agents must be that shown on the nameplate or be an agent that is specifically UL Classified for use in the specific manufacturer model extinguisher being recharged. When proper parts or agent are not used or are not available, the listing cannot be maintained.

LIABILITY

Liability for servicing these extinguishers, particularly those manufactured by companies that have long been out of business, rests solely with the extinguisher service company and its components supplier. No one else is around to answer questions either in or out of court. Only the insurance policies of the fire extinguisher service company and the end-user are

available to back up any problems during an incident. Given the age and antiquated design of the extinguisher, an argument could be made that problems are more likely to arise with older, outdated equipment than with newer equipment that meets current design standards. Warranties, even if the manufacturer of the equipment is still in business, have long since expired. An older extinguisher could have been made by a quality conscious manufacturer that is still in business but that same manufacturer recommended that the units be removed from service and has not made parts available.

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

ANTIQUATED EXTINGUISHERS

In today's tight labor market with costs for energy, insurance, vehicles and real estate soaring, it is a mistake to assume that labor-intensive service work on antiquated extinguishers is always profitable. Without using some form of Activity Based Costing, it is difficult to determine exact costs of service. A 24-year-old extinguisher that is due for its second hydrostatic test (and which should have had two 6-year service maintenance recharges) must be removed from its location and an extinguisher of equal or greater rating put in its place. It will be carried to a service company truck, tagged for tracking and transported to the shop. At the shop it will be unloaded, discharged, labeled for disassembly, hydrostatically tested, dried, recharged and then transported back to the end-user where it is placed back in service and the loaner is picked up. Many end-users have a policy regarding replacement costs. If the cost of repairs/service work exceed a certain percentage (often 50%) of the cost to replace the equipment, they would rather replace it and take advantage of a new warranty. However if service is done and assuming that it doesn't leak, how much time has been spent in total on this extinguisher? And at the end of all of that time, the end-user has a 24-year-old extinguisher. If a service company uses parts or agent not approved, what happens if it leaks? What happens if it fails to discharge properly? What happens if someone is injured?

CONCLUSIONS

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

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

Prepared by the members of FEMA's Portable Division

Visit our website on Balanced Fire Protection at – www.femalifesafety.org

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Underwriters Laboratories Inc.®

February 28, 2001

Ms. Susan Young
Fire Equipment Manufacturers Association (FEMA)
1300 Sumner Avenue
Cleveland, OH 44115-2851

Subject: UL Listings of Fire Extinguishers

Dear Ms. Young:

The following information is provided to assist FEMA members in clarifying the requirements to maintain the UL Listing of a fire extinguisher in the field.

1. To maintain its UL Listing, a fire extinguisher is to be serviced and maintained in accordance with NFPA 10, the instructions on the extinguisher nameplate and the manufacturer's Service and Owner's Manuals.

2. The use of any parts or agent not specifically identified on the extinguisher nameplate or in the manufacturer's Manuals, or the use of an agent that is not specifically UL Classified for use in recharging the specific manufacturer and model of fire extinguisher, does not maintain the UL Listing for that fire extinguisher, and therefore, would not be considered UL Listed.

3. When the proper service parts or agent for recharging are no longer available for a specific model UL Listed fire extinguisher, the Listing for that extinguisher cannot be maintained in accordance with the extinguisher nameplate, the manufacturer's manuals and NFPA 10, and therefore, would not be considered UL Listed.

Sincerely,

Emil W Misichko

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Engineering Group Leader
Conformity Assessment Services
Department 3011CNBK
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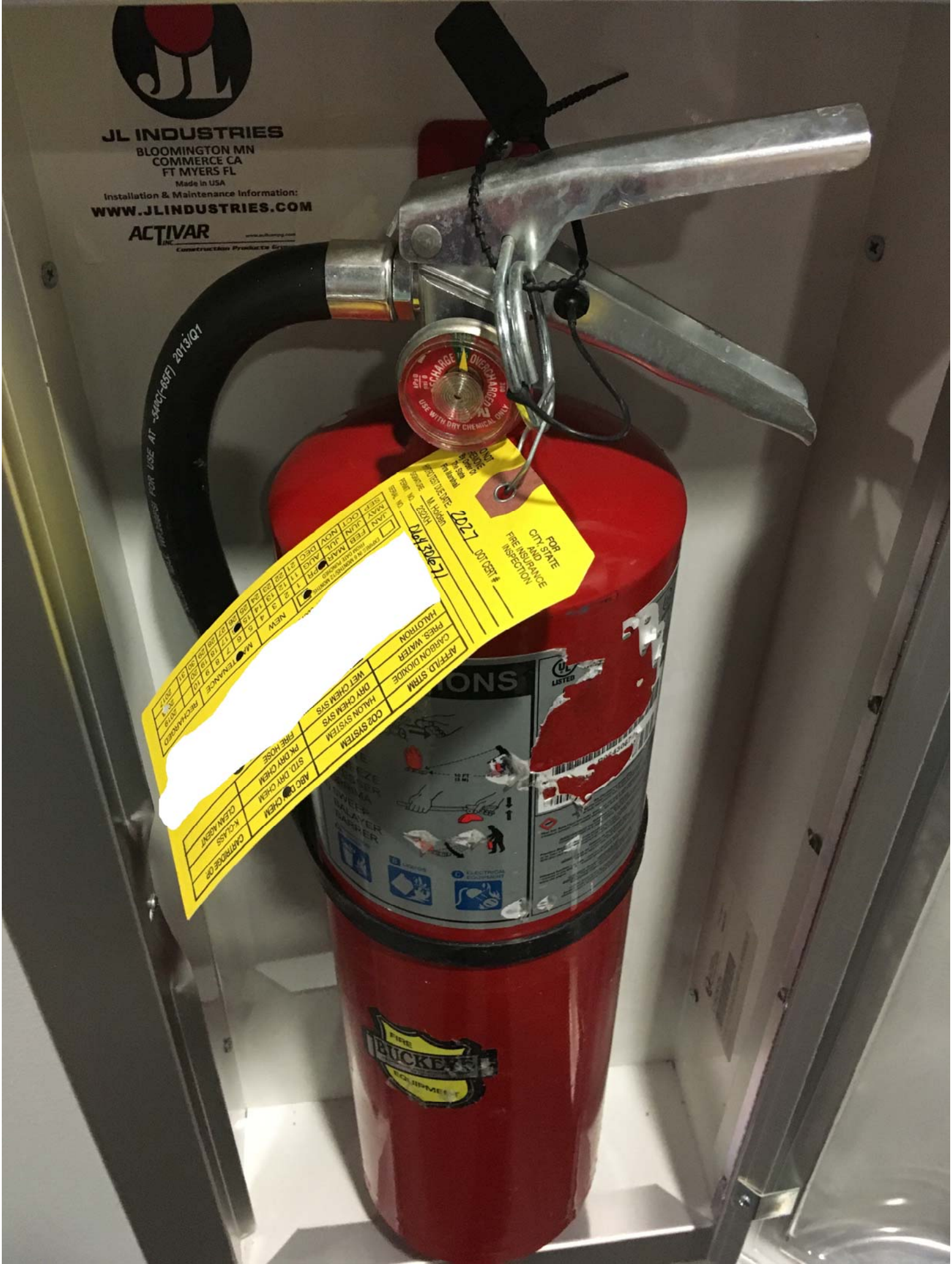
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PK DRY CHEM
FIRE HOSE
CARTRIDGE OF
K-CLASS
CLEAN AGENT
BUCKEYE

TECHNICAL BULLETIN

September 2011

NOTICE OF UL/ULC STANDARD CHANGE THAT AFFECTS EXTINGUISHER RATINGS

In 2002, Underwriters Laboratories (UL) and Underwriters Laboratories Canada (ULC) jointly published a "harmonized" Standard 711 for the fire rating tests of hand portable and wheeled fire extinguishers. Prior to this change, the U.S. and Canadian Standards had different test requirements for the Class A rating, the main difference being that the ULC Standard specified a larger wood crib for fire tests. In the new harmonized Standard the larger ULC wood crib is the adopted requirement. This change to the Standard has made it necessary for all fire extinguisher manufacturers to undergo retests of many of their current products to establish Class A ratings to the new Standard. The results of this retesting were that the current Class A ratings on a few fire extinguishers have been adjusted lower. For example, an extinguisher that currently carries a 20A UL rating may be reclassified to a 6A rating under the more rigorous bi-national Standard.

Industry compliance to this new Standard is scheduled for February 14, 2011. It is anticipated that all of the fire extinguisher manufacturers will announce their new ratings by this date. Please see the Table on the following page for the new ratings of the affected Buckeye products.

Three important points to understand about this change;

1. Buckeye's fire extinguishers have not been changed in design or fire fighting capabilities. The extinguishers you have been buying before the February 14th implementation date will be the same as the ones you buy after that date. Model/Part Numbers are unaffected. Ratings may be lower on a few product models as a reflection of the more rigorous tests but the extinguishing potential remains the same (See Table).

2. The revised ratings will apply to extinguishers manufactured after the implementation date. Existing extinguishers in the field, in your inventory, and in Buckeye's inventory will still carry the rating of the previous UL Listing.

3. The NFPA 10 Standard will not be changed to reflect the UL/ULC harmonized Standard. All of its current requirements regarding Class A extinguishers remain in effect.

Thank you for your attention to this significant change in the fire protection industry. It is important that you understand the impact this change may have on your customers so that you can continue to effectively serve their fire protection needs. If you should have questions regarding this change please contact your Buckeye Sales Representative.

Model	Previous Rating	New Rating
20S ABC	20-A:120-B:C	6-A:120-B:C
30S ABC	20-A:160-B:C	6-A:160-B:C
A-50-SP	30-A:160-B:C	10-A:160-B:C
A-150-SP	40-A:240-B:C	30-A:240-B:C
A-150-RG	40-A:240-B:C	30-A:240-B:C
A-150-PT	40-A:240-B:C	30-A:240-B:C
A-350-RG	40-A:320-B:C	30-A:320-B:C
A-350-PT	40-A:320-B:C	30-A:320-B:C

Note: The new ratings are applicable to all part number configurations of the listed model.

All models not listed in the Table retain their current rating.

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AMEREX
Industry News Update
7595 GADSDEN HWY. ❖ TRUSSVILLE, ALABAMA 35173 ❖ PH: (205) 655-3271 ❖ FAX: 1-800-654-5980 ❖ email:sales@amerex-fire.com

Bi-National Standards

Several years ago UL and ULC agreed to harmonize the test standards for fire extinguishers and fire testing of extinguishers in an effort to eliminate the confusion over the ratings for extinguishers listed with either a UL listing, or a ULC (Canadian) listing.

It was determined that all manufacturers were to retest to the new standards so that both the UL and ULC rating were consistent and one test program would result in a dual listing for the manufacturer.

Amerex completed this compliance testing last year. Effective with the new 2011 nameplates, all Amerex extinguishers now comply with the new bi-national standards. The chart below highlights only those extinguishers that have new or different ratings.

MODEL	Description	Present UL Listing	New UL Listing
A411	20# ABC	20A:120B:C	10A:120B:C
423	20# ABC	20A:120B:C	10A:120B:C
564	20# ABC High Performance	20A:120B:C	10A:120B:C
589	30# ABC High Performance	20A:160B:C	10A:160B:C
495	50# ABC Wheeled	30A:160B:C	20A:160B:C
450	125# ABC Wheeled	40A:240B:C	30A:240B:C
467	125# ABC Wheeled	40A:240B:C	30A:240B:C
470	125# ABC Wheeled	40A:240B:C	30A:240B:C
488	125# ABC Wheeled	40A:240B:C	30A:240B:C

Please note that no other Amerex models are affected to the extent of new or different ratings by the change to bi-national standards.

This change is mandated to take effect on February 14, 2011.

Badger Fire Protection
www.badgerfire.com

A UTC Fire & Security Company

TECHNICAL BULLETIN #118-0211

Date: February 2011

Subject: Badger Extinguisher ANSI/UL Test Standard Harmonization Changes

In 2002 attempts to standardize various portable fire extinguisher test protocol differences between Underwriters Laboratories (UL) and Underwriters Laboratories of Canada (ULC) were initiated. Effective February 14th 2011 fire equipment manufacturers were required to comply with all of the new harmonized testing standards in order to obtain product listing approvals. While the new procedure changes primarily affect fire equipment manufacturers they result in some noticeable extinguisher changes that might raise questions in the field and require some explanation.

One of the most notable portable fire extinguisher changes resulting from harmonization is how the Class "A" fire test procedures are conducted within the ANSI/UL-711 standard and its impact on the fire ratings typically associated with certain sizes of fire extinguishers. Because the new harmonized numerical Class "A" fire test procedures require slightly larger configurations of crib fires and establish longer pre-burn requirements before attempting extinguishment, some larger extinguisher models may now have lower numerical fire ratings. Some examples of lower Class "A" fire extinguisher rating changes include:

- 10 pound extinguisher models changing from 10A to 4A ratings
- 20 pound extinguisher models changing from 20A to 6A or 10A ratings
- 30 pound extinguisher models changing from 20A to 10A ratings
- 50 pound extinguisher models changing from 30A to 20A ratings

It is important to point out that in most cases the equipment has not changed, only the fire testing method for how they are being rated. Most fire extinguisher models typically still deliver the same level of performance that they did prior to the implementation of the new harmonized fire test standard requirements.

While the Portable Fire Extinguisher Standard (NFPA-10) does not specify any Class "A" numerical fire ratings higher than 4A, there are a few other NFPA standards which reference and require higher numerical Class "A" fire ratings. Where these higher rating requirements exist, larger fire extinguisher models may become necessary for compliance.

The ANSI/UL-154 standard for carbon dioxide fire extinguishers also made some intermittent discharge requirement changes, which ultimately resulted in the extinguisher's low temperature approval limits being changed from -40F (-40C) to -22F (- 30 C). As a result, you will notice our various carbon dioxide model designations have also changed. Because the gaseous discharge of carbon dioxide fire extinguishers are seldom selected, specified or utilized with outdoor applications, the cold temperature operating limitation change is expected to have minimal market impact.

Should you have any specific fire extinguisher model questions, please refer to the current product literature specifications available on our web site www.badgerfire.com or contact Badger Fire Protection directly at (434) 964-3200.

U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, D.C. 20590

AUG 19 2016

Mr. Jacky Xie
Ningbo Zhengxin Fire Fighting
Equipment Co., Ltd.
1199 Hua Shan Road, Room 15B2
Waigaoqiao, Shanghai 200137
CHINA

Reference No. 16-0059

Dear Mr. Xie:

This letter is in response to an April 6, 2016, email from Mitchell Brown (Chief Investigator, Eastern Region, Field Services Support Division, PHMSA) in which he forwarded your inquiry and requested clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the transport of "UN 1044, Fire extinguishers, 2.2 (non-flammable gas)" by motor vehicle in the United States. We have paraphrased and answered your questions as follows:

Q1. Must fire extinguishers in the United States be described as "UN 1044, Fire extinguishers, 2.2"?

A1. Only fire extinguishers that comply with the requirements prescribed in § 173.309 must be described as "UN 1044, Fire extinguishers *containing compressed or liquefied gas*, 2.2." A fire extinguisher that varies from these requirements must be described appropriately for the hazardous material(s) it contains. For example, § 173.309(a)(3) requires that UN 1044 fire extinguishers must contain 30 percent or less carbon dioxide by volume. Fire extinguishers that exceed this percentage may be described as "UN 1013, Carbon dioxide, 2.2," or may have different or additional description requirements authorized under a Department of Transportation Special Permit (DOT-SP).

Q2. What is the correct way to transport fire extinguishers in the United States by motor vehicle?

A2. Fire extinguishers authorized under § 173.309 must comply with that section's handling, packaging, operation, and test requirements before being offered for transportation in commerce. These requirements include relief from shipping papers, labels, and placards and from having to comply with the modal requirements in 49

CFR Parts 174 (rail) and 177 (highway). Section 173.309 fire extinguishers are also eligible for the exceptions in § 173.156. As previously stated, fire extinguishers that do not comply with § 173.309 but meet the definition of a hazardous material must comply with the HMR requirements applicable to the hazardous materials they contain. For example, these cylinders must be loaded, secured, and unloaded on a motor vehicle in conformance with 49 CFR Part 177 unless they meet the limited quantity exception. Please note that other Federal agency regulations may also apply.

Q3. Why aren't all fire extinguishers in the United States marked and labeled with a green NON-FLAMMABLE GAS (Division 2.2) compressed gas label prescribed in § 172.415? Is this label only required when a fire extinguisher is shipped by vessel?

A3. As previously stated, fire extinguishers that comply with § 173.309 are excepted from being labeled with a NON-FLAMMABLE GAS hazard warning label. Fire extinguishers that do not comply with § 173.309 must be marked and labeled as required under the HMR. For example, fire extinguishers required by the HMR to be placed in an outer packaging before being offered for transportation (such as a fiberboard box authorized under a DOT-SP) must be marked and labeled on the outer packaging in conformance with the HMR. Fire extinguishers that are permitted by the HMR to be placed in transportation without an outer packaging must themselves be marked and labeled as prescribed in 49 CFR Part 172, Subpart E (labeling).

Q4. Are there special regulations in the United States for delivering Division 2.2 fire extinguishers other than those assigned identification number "UN 1044"?

A4. As previously stated, the answer is yes. Division 2.2 fire extinguishers other than those assigned identification number "UN 1044" must be offered for transportation in commerce in conformance with the HMR for the hazardous materials they contain.

Q5. Are only those fire extinguishers manufactured in conformance with § 173.309 required to be classified as "Division 2.2" and assigned identification number "UN 1044"?

A5. The answer is no. Please see A4.

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,

T. Glenn Foster

T. Glenn Foster
Chief, Regulatory Review and Reinvention Branch
Standard and Rulemaking Division

Edmonson
173.309
Fire Extinguishers
Re - 0059

Goodall, Shante CTR (PHMSA)

From: Foster, Glenn (PHMSA)
Sent: Wednesday, April 06, 2016 11:18 AM
To: Brown, Mitchell (PHMSA)
Cc: Dodd, Alice (PHMSA); Goodall, Shante CTR (PHMSA)
Subject: INFO: Fire Extinguishers

Mitchell,

Okay, will do.

Shante / Alice,

Please have the request below checked in as a Request for a Letter of Interpretation and assigned to the next Specialist in the rotation.

Thanks,
Glenn

From: Brown, Mitchell (PHMSA)
Sent: Wednesday, April 06, 2016 11:17 AM
To: Foster, Glenn (PHMSA)
Subject: RE: INFO: Fire Extinguishers
Importance: High

Greetings Glen,

Yes please...

The company contact information is as follows:

Mr. Jacky Xie
Ningbo Zhengxin Fire Fighting Equipment Co., Ltd
Room 15B2
1199 Hua Shan Rd.
Waigaoqiao, Shanghai 200137 China
jxie@zxfire.net

Additionally, I am a bit curious as I would very much like to ensure that my investigators as well as myself understand thoroughly how we should be addressing fire extinguishers with respect to enforcement. Thank you so much for your assistance in this matter.

v/r
Mitchell F. Brown
Chief Investigator, Eastern Region
Office of Hazardous Materials Safety, Field Operations
Pipeline and Hazardous Materials Safety Administration (PHMSA)
United States Department of Transportation

820 Bear Tavern Rd., Suite 306
West Trenton, NJ 08628
Phone: 609-989-2256
Fax: 609-989-2277
E-Mail: mitchell.brown@dot.gov
PHMSA is hiring! Subscribe to receive new job alerts by email

PHMSA - For the Public

From: Foster, Glenn (PHMSA)
Sent: Wednesday, April 06, 2016 11:08 AM
To: Brown, Mitchell (PHMSA)
Subject: RE: INFO: Fire Extinguishers

Hello Mitchell,

Do you want to have these inquiries checked in as a request for a Letter of Interpretation?

Thanks
Glenn

From: Brown, Mitchell (PHMSA)
Sent: Wednesday, April 06, 2016 8:10 AM
To: Foster, Glenn (PHMSA)
Subject: INFO: Fire Extinguishers
Importance: High

Greetings Mr. Foster,

I have a several questions for you....attached please find copies of Compliance Certificates relative to Fire Extinguishers. The company specifically asked whether the extinguisher(s) must be described as UN1044, fire extinguisher, 2.2
when transporting via highway in the US. These extinguishers will contain dry chemical product that are not hazardous materials. The questions are as follows::

Do the fire extinguishers in USA need to be delivered under UN1044 class 2.2??

What is the right way to delivery fire extinguishers in USA by truck?

Why aren't all fire extinguishers in USA not marked and labeled with the Green Label UN1044 class 2.2; in Europe they are? Is this only a requirement when shipped via vessel?

Is there a special regulation of delivery fire extinguishers in USA other than UN1044 class 2.2?

Are only those extinguishers manufactured under section 173.309, required to be shipped under UN1044 class 2.2?

Any assistance that you might be able to provide on this matter would be greatly appreciated. Again, the company is looking to transport their fire extinguishers via highway.

v/r

Mitchell F. Brown
Chief Investigator, Eastern Region
Office of Hazardous Materials Safety, Field Operations
Pipeline and Hazardous Materials Safety Administration (PHMSA)
United States Department of Transportation
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West Trenton, NJ 08628
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E-Mail: mitchell.brown@dot.gov

Public Input No. 105-NFPA 10-2019 [Section No. 4.1.4]

4.1.4 Electrical Conductivity.

Extinguishers listed for the Class C rating shall not contain an agent that is a conductor of electricity.

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*.

4.1.4.2

Fire extinguishers containing water-based agents that have a conductivity higher than 1.00 µS/cm at 25°C (77°F) shall be considered a conductor of electricity and therefore shall not be rated Class C.

~~**4.1.4.3** –~~

~~Paragraphs 4.1.4.1 and 4.1.4.2 shall apply only to water-based extinguishers manufactured after August 15, 2002.~~

Statement of Problem and Substantiation for Public Input

Paragraph 4.1.4.3 should be deleted as water mist extinguishers that are listed for the Class C rating should contain an agent that is electrically nonconductive and complies with 4.1.4.1 and 4.1.4.2.

Submitter Information Verification

Submitter Full Name: Jennifer Boyle
Organization: FEMA
Affiliation: FEMA
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 20 13:24:03 EDT 2019
Committee: PFE-AAA

Public Input No. 139-NFPA 10-2019 [Section No. 4.1.4.3]

4.1.4.3

Paragraphs 4.1.4.1 and 4.1.4.2 shall apply only to water-based extinguishers manufactured after August 15, 2002.

Remove section 4.1.4.3

~~4.1.4.3 Paragraphs 4.1.4.1 and 4.1.4.2 shall apply only to waterbased extinguishers manufactured after August 15, 2002.~~

Statement of Problem and Substantiation for Public Input

Some water based extinguishers made before August 15, 2002 bear the “C” rating and contain agents which can potentially conduct electricity once they puddle and pool upon discharge. Those class “C” rated water-based fire extinguisher nameplates also do not communicate or reflect anything about the potential conductivity of the agent as currently referenced and required within paragraph 4.1.4. The existing subject language exemption not only presents confusion, but represents a potential safety hazard to unsuspecting end-users. We maintain visibility on our customers equipment and can identify thousands of units which currently present such concerns. (Our records reflect 4% of the total class K and water mist units still actively in service, are pre-August 2002 models).

Submitter Information Verification

Submitter Full Name: Robert Glass
Organization: Cintas Corporation
Street Address:
City:
State:
Zip:
Submittal Date: Mon Jun 24 15:34:39 EDT 2019
Committee: PFE-AAA

Public Input No. 162-NFPA 10-2019 [Section No. 4.4.1 [Excluding any Sub-Sections]]

Dry chemical stored-pressure extinguishers with an indicated manufacturing date ~~of~~ prior to 1984 ~~or prior~~ shall be removed from service.

Statement of Problem and Substantiation for Public Input

Substantiation
Existing language is problematic in that it implies all 1984 dated models also need to be replaced. There is no technical reason for removing or replacing any 1984 manufactured models. The initial requirement language introduced with the 2006 rewrite for the 2007 and all subsequent editions of NFPA-10, clearly established the need to specifically replace pre-1984 models. This existing language conflicts with the committee's substantiation for the last change and was noted during the finial ballot of the 2018 edition, but did not get corrected prior to publication.

Submitter Information Verification

Submitter Full Name: J. R. Nerat
Organization: UTC/Badger Fire Protection
Affiliation: NFPA-Industrial Section
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 25 12:43:49 EDT 2019
Committee: PFE-AAA

Public Input No. 26-NFPA 10-2018 [Section No. 4.4.2]

4.4.2*

Any fire extinguisher that can no longer be serviced in accordance with the manufacturer's maintenance manual ~~is~~ and nameplate is considered obsolete and shall be removed from service and from the workplace by the service company .

Additional Proposed Changes

File Name	Description	Approved
2929-obsolete.pdf	FEMA Document	
IMG_0043.JPG	No serial number or UL information	
001.jpg	UL Listing	

Statement of Problem and Substantiation for Public Input

We have costumers who say that the fire extinguisher is still good even though the serial number or any service information in the nameplate is missing. We tell the they are obsolete, which we are told in class by the Badge rep the other day and in the 4.4.1 annex, but they still want to keep it even if it fails inspection (CFR 1910.157(f)(14)), also we are told that a couple of boys died for misuse of the fire extinguishers that were not taken out of service and condemned properly. So I would like to see to it that you add to it for liability reasons. Thank you.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 28-NFPA 10-2018 [Section No. 4.1.2 [Excluding any Sub-Sections]]	

Submitter Information Verification

Submitter Full Name: Joseph King
Organization: LaGrange Fire Protection
Affiliation: AFSP
Street Address:
City:
State:
Zip:
Submittal Date: Sat Oct 13 20:56:31 EDT 2018
Committee: PFE-AAA

FEMA | the life safety group

Saving Lives, Protecting Property

REMOVAL FROM SERVICE OF OBSOLETE FIRE EXTINGUISHERS

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

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

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

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

FIRE EQUIPMENT MANUFACTURERS' ASSOCIATION *Executive Director:* **THOMAS ASSOCIATES, INC.**

1300 Sumner Avenue., Cleveland, Ohio 44115-2851 • Telephone: 216-241-7333 • Fax: 216-241-0105
E-Mail: fema@taol.com • www.yourfirstdefense.com

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

CODES & STANDARDS

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

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

The 1998 edition of NFPA 10 tells us that extinguishers "… shall be listed and labeled …" (1-4.3), "No fire extinguisher shall be converted from one type to another, nor shall any fire extinguisher be converted to use a different type of extinguishing agent …" (4-5.1.4), and that maintenance must be done using "… the proper types of tools, recharge materials, lubricants and manufacturer's recommended replacement parts or parts specifically listed for use in the fire extinguisher" (4-1.1). NFPA 10 further informs us that "…Only those agents specified on the nameplate or agents proven to have equal chemical composition, physical characteristics and fire extinguishing capabilities shall be used. Agents listed specifically for use with that extinguisher shall be considered to meet these requirements" (4-5.3.1).

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

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

In recent correspondence, which is attached, UL has clarified for us that an extinguisher would not be considered listed unless that extinguisher was serviced according to the manufacturer's manuals. Parts used for service must be those shown on the nameplate and in the manufacturer's manuals. Extinguisher agents must be that shown on the nameplate or be an agent that is specifically UL Classified for use in the specific manufacturer model extinguisher being recharged. When proper parts or agent are not used or are not available, the listing cannot be maintained.

LIABILITY

Liability for servicing these extinguishers, particularly those manufactured by companies that have long been out of business, rests solely with the extinguisher service company and its components supplier. No one else is around to answer questions either in or out of court. Only the insurance policies of the fire extinguisher service company and the end-user are

available to back up any problems during an incident. Given the age and antiquated design of the extinguisher, an argument could be made that problems are more likely to arise with older, outdated equipment than with newer equipment that meets current design standards. Warranties, even if the manufacturer of the equipment is still in business, have long since expired. An older extinguisher could have been made by a quality conscious manufacturer that is still in business but that same manufacturer recommended that the units be removed from service and has not made parts available.

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

ANTIQUATED EXTINGUISHERS

In today's tight labor market with costs for energy, insurance, vehicles and real estate soaring, it is a mistake to assume that labor-intensive service work on antiquated extinguishers is always profitable. Without using some form of Activity Based Costing, it is difficult to determine exact costs of service. A 24-year-old extinguisher that is due for its second hydrostatic test (and which should have had two 6-year service maintenance recharges) must be removed from its location and an extinguisher of equal or greater rating put in its place. It will be carried to a service company truck, tagged for tracking and transported to the shop. At the shop it will be unloaded, discharged, labeled for disassembly, hydrostatically tested, dried, recharged and then transported back to the end-user where it is placed back in service and the loaner is picked up. Many end-users have a policy regarding replacement costs. If the cost of repairs/service work exceed a certain percentage (often 50%) of the cost to replace the equipment, they would rather replace it and take advantage of a new warranty. However if service is done and assuming that it doesn't leak, how much time has been spent in total on this extinguisher? And at the end of all of that time, the end-user has a 24-year-old extinguisher. If a service company uses parts or agent not approved, what happens if it leaks? What happens if it fails to discharge properly? What happens if someone is injured?

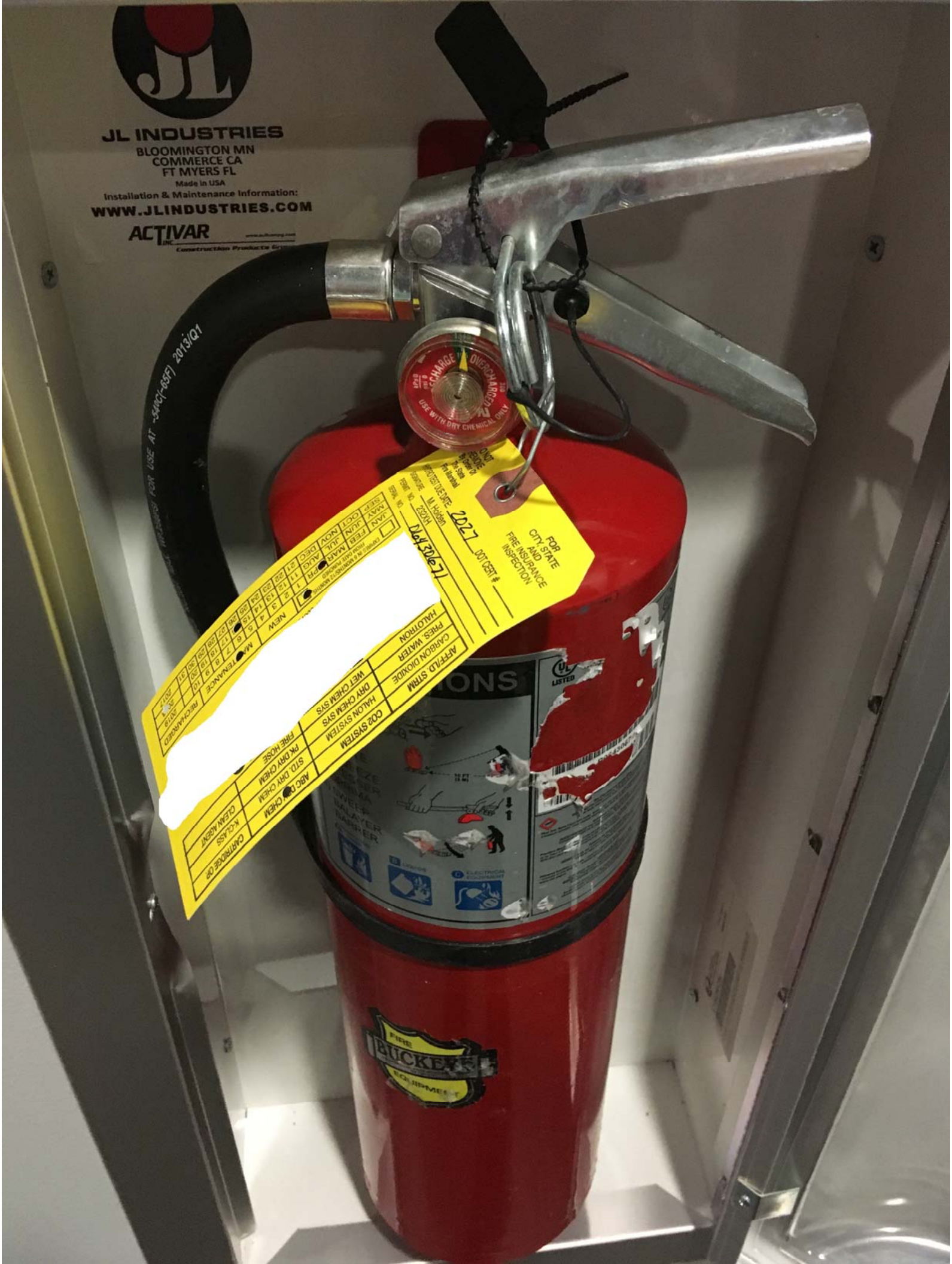
CONCLUSIONS

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

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

Prepared by the members of FEMA's Portable Division

Visit our website on Balanced Fire Protection at – www.femalifesafety.org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Underwriters Laboratories Inc.®

February 28, 2001

Ms. Susan Young
Fire Equipment Manufacturers Association (FEMA)
1300 Sumner Avenue
Cleveland, OH 44115-2851

Subject: UL Listings of Fire Extinguishers

Dear Ms. Young:

The following information is provided to assist FEMA members in clarifying the requirements to maintain the UL Listing of a fire extinguisher in the field.

1. To maintain its UL Listing, a fire extinguisher is to be serviced and maintained in accordance with NFPA 10, the instructions on the extinguisher nameplate and the manufacturer's Service and Owner's Manuals.

2. The use of any parts or agent not specifically identified on the extinguisher nameplate or in the manufacturer's Manuals, or the use of an agent that is not specifically UL Classified for use in recharging the specific manufacturer and model of fire extinguisher, does not maintain the UL Listing for that fire extinguisher, and therefore, would not be considered UL Listed.

3. When the proper service parts or agent for recharging are no longer available for a specific model UL Listed fire extinguisher, the Listing for that extinguisher cannot be maintained in accordance with the extinguisher nameplate, the manufacturer's manuals and NFPA 10, and therefore, would not be considered UL Listed.

Sincerely,

Emil W Misichko

EMIL W. MISICHKO (Ext. 42036)
Engineering Group Leader
Conformity Assessment Services
Department 3011CNBK
E-Mail: Emil.W.Misichko@us.ul.com

Public Input No. 106-NFPA 10-2019 [Section No. 5.4.2.1]

5.4.2.1

~~Required building protection~~ Since all buildings have Class A fire hazards, extinguishers with Class A ratings matching the Classifications of Hazards shall be provided ~~by fire extinguishers for Class A fires~~ throughout buildings .

Statement of Problem and Substantiation for Public Input

Extinguishers are provided for Class A and B fires. The Class C rating is for shock hazard of the agent discharge (see UL 711).

Submitter Information Verification

Submitter Full Name: Jennifer Boyle
Organization: FEMA
Affiliation: FEMA
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 20 13:29:46 EDT 2019
Committee: PFE-AAA

Public Input No. 107-NFPA 10-2019 [Section No. 5.4.2.2]

5.4.2.2*

Occupancy hazard protection shall be provided by fire extinguishers for ~~such~~ Class A, B, C, D, or K fire ~~potentials as might~~ hazards that are expected to be present.

Statement of Problem and Substantiation for Public Input

Editorial improvement.

Submitter Information Verification

Submitter Full Name: Jennifer Boyle
Organization: FEMA
Affiliation: FEMA
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 20 13:30:52 EDT 2019
Committee: PFE-AAA

Public Input No. 108-NFPA 10-2019 [Section No. 5.4.2.3]

~~5.4.2.3~~ –

~~Fire extinguishers provided for building protection shall be permitted to also be considered for the protection of occupancies having a Class A fire potential.~~

Statement of Problem and Substantiation for Public Input

This sentence causes confusion as the extinguishers provided for building protection are for Class A fires. Deletion of the sentence removes the confusion.

Submitter Information Verification

Submitter Full Name: Jennifer Boyle
Organization: FEMA
Affiliation: FEMA
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 20 13:35:12 EDT 2019
Committee: PFE-AAA

Public Input No. 109-NFPA 10-2019 [Section No. 5.4.2.4]

5.4.2.4

Buildings having an occupancy hazard subject to Class B ~~or Class C~~ fires ~~, or both,~~ shall have a standard complement of ~~Class A~~ fire extinguishers with Class A ratings for building protection, plus ~~additional~~ Class B ~~or Class C~~ rated fire extinguishers~~, or both~~ .

Statement of Problem and Substantiation for Public Input

Extinguishers are provided for Class A and B fires. The Class C rating is for shock hazard of the agent discharge (see UL 711).

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Public Input No. 110-NFPA 10-2019 [Section No. 5.4.2.5]

5.4.2.~~5~~ 4.1

Where fire extinguishers have more than one letter classification (such as 2-A:20-B:C), they shall be permitted to satisfy the requirements of each letter class.

Statement of Problem and Substantiation for Public Input

Editorially renumber this paragraph as a subparagraph of 5.4.2.4. New paragraph number is 5.4.2.4.1.

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Public Input No. 111-NFPA 10-2019 [Section No. 5.5.1.1]

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~~ provided to protect these hazards.

Statement of Problem and Substantiation for Public Input

The more appropriate term is "provided".

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Public Input No. 136-NFPA 10-2019 [Section No. 5.5.1.1]

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~~ provided to protect these hazards.

Statement of Problem and Substantiation for Public Input

The more appropriate term is “provided”.

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Public Input No. 112-NFPA 10-2019 [Section No. 5.5.2]

5.5.2* Three-Dimensional Fires.

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

Statement of Problem and Substantiation for Public Input

The more appropriate term is “provided”.

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Public Input No. 137-NFPA 10-2019 [Section No. 5.5.2]

5.5.2* Three-Dimensional Fires.

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

Statement of Problem and Substantiation for Public Input

The more appropriate term is “provided”.

Submitter Information Verification

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Submittal Date: Mon Jun 24 15:07:20 EDT 2019
Committee: PFE-AAA

Public Input No. 113-NFPA 10-2019 [Section No. 5.5.4]

5.5.4 Water-Soluble Flammable Liquid Fires (Polar Solvents).

Aqueous film-forming foam (AFFF) and film-forming fluoroprotein foam (FFFP) types of fire extinguishers shall not be ~~used~~ provided for the protection of water-soluble flammable liquids, such as alcohols, acetone, esters, ketones, and so forth, unless specifically referenced on the fire extinguisher nameplate.

Statement of Problem and Substantiation for Public Input

The more appropriate term is “provided”.

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Committee: PFE-AAA

Public Input No. 138-NFPA 10-2019 [Section No. 5.5.4]

5.5.4 Water-Soluble Flammable Liquid Fires (Polar Solvents).

Aqueous film-forming foam (AFFF) and film-forming fluoroprotein foam (FFFP) types of fire extinguishers shall not be ~~used~~ provided for the protection of water-soluble flammable liquids, such as alcohols, acetone, esters, ketones, and so forth, unless specifically referenced on the fire extinguisher nameplate.

Statement of Problem and Substantiation for Public Input

The more appropriate term is “provided”.

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Committee: PFE-AAA

Public Input No. 81-NFPA 10-2019 [Section No. 5.5.4]

5.5.4 Water-Soluble Flammable Liquid Fires (Polar Solvents).

Aqueous film-forming foam (AFFF) and film-forming fluoroprotein foam (FFFP) types of fire extinguishers shall not be ~~used~~ provided for the protection of water-soluble flammable liquids, such as alcohols, acetone, esters, ketones, ~~and so forth,~~ unless specifically referenced on the fire extinguisher nameplate.

Statement of Problem and Substantiation for Public Input

Editorial

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Public Input No. 82-NFPA 10-2019 [Section No. 5.5.4]

5.5.4 Water-Soluble Flammable Liquid Fires (Polar Solvents).

Aqueous film-forming foam (AFFF) and film-forming fluoroprotein foam (FFFP) types of fire extinguishers shall not be ~~used~~ provided for the protection of water-soluble flammable liquids, such as alcohols, acetone, esters, ketones, ~~and so forth,~~ unless specifically referenced on the fire extinguisher nameplate.

Statement of Problem and Substantiation for Public Input

Editorial

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Public Input No. 114-NFPA 10-2019 [Section No. 5.5.5.1]

~~5.5.5.1~~ –

~~Class K fire extinguishers manufactured after January 1, 2002, shall not be equipped with extended wand–type discharge devices.~~

Statement of Problem and Substantiation for Public Input

This paragraph is unnecessary as Class K fire extinguishers are no longer equipped with extended wand–type discharge devices.

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Public Input No. 83-NFPA 10-2019 [Section No. 5.5.6]

5.5.6* Electronic Equipment Fires.

Fire extinguishers for the protection of delicate electronic equipment shall be selected ~~from types~~ based on the Class A or Class B fire hazards that could be involved with the energized electrical equipment and the extinguishers shall be specifically listed and labeled for Class C hazards. *(See 5.3.2.3.)*

5.5.6.1*

Dry chemical fire extinguishers shall not be installed for the protection of delicate electronic equipment.

Statement of Problem and Substantiation for Public Input

Class C fires are essentially either Class A or Class B fires involving energized electrical equipment.

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Public Input No. 164-NFPA 10-2019 [Section No. 5.5.6 [Excluding any Sub-Sections]]

Fire extinguishers for the protection of ~~delicate electronic~~ energized electronic equipment shall be selected from types specifically listed and labeled for Class C hazards. *(See 5.3.2.3.)*

Statement of Problem and Substantiation for Public Input

Substantiation
Existing language is problematic in that the term delicate is not defined and irrelevant to establishing the need for class “C” rated extinguishers to address energized electronic equipment fires.

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Committee: PFE-AAA

Public Input No. 165-NFPA 10-2019 [Section No. 5.5.6.1]

5.5.6.1 *

Dry chemical fire extinguishers shall not be installed for the ~~protection~~ sole protection of delicate or electronic equipment that the owner considers critical to operation and protection objectives .

Statement of Problem and Substantiation for Public Input

Substantiation
The prohibition of dry chemical is technically problematic in that it prohibits the selection or placement of any dry chemical extinguisher models, regardless of the type or value of electric equipment present, as well as the owner's desired fire protection objectives for the subject equipment.

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Public Input No. 3-NFPA 10-2018 [Chapter 6]

Chapter 6 Installation of Portable Fire Extinguishers

6.1 General.

6.1.1* Number of Extinguishers.

The minimum number of fire extinguishers needed to protect a property shall be determined as outlined in this chapter.

6.1.1.1

The installation of extinguishers shall be independent of whether the building is equipped with automatic sprinklers, standpipe and hose, or other fixed protection equipment.

6.1.1.2

Additional extinguishers shall be permitted to be installed to provide more protection.

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.

6.1.2 Extinguisher Readiness.

Portable fire extinguishers shall be maintained in a fully charged and operable condition and shall be kept in their designated places at all times when they are not being used.

6.1.3 Placement.

6.1.3.1

Fire extinguishers shall be conspicuously located where they are readily accessible and immediately available in the event of fire.

6.1.3.2

Fire extinguishers shall be located along normal paths of travel, including exits from areas.

6.1.3.3 Visual Obstructions.

6.1.3.3.1

Fire extinguishers shall be installed in locations where they are visible except as permitted by 6.1.3.3.2.

6.1.3.3.2*

In rooms and in locations where visual obstructions cannot be avoided, signs or other means shall be provided to indicate the extinguisher location.

6.1.3.3.3

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

Projecting / Ceiling mounted Sign -"Fire Extinguisher", double sided be instlled at the Min. 7' high, visable (unobstructed) at a distance of 75'

6.1.3.3.4

Signs or other means used to indicate fire extinguisher location shall be visible from the normal path of travel.

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 a 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.

6.1.3.5

Wheeled fire extinguishers shall be located in designated locations.

6.1.3.6

Fire extinguishers installed in vehicles or under other conditions where they are subject to dislodgement shall be installed in approved strap-type brackets specifically designed for this application.

6.1.3.7*

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

6.1.3.8 Installation Height.

6.1.3.8.1

Fire extinguishers having a gross weight not exceeding 40 lb (18.14 kg) shall be installed so that the top of the fire extinguisher is not more than 5 ft (1.53 m) above the floor.

6.1.3.8.2

Fire extinguishers having a gross weight greater than 40 lb (18.14 kg) (except wheeled types) shall be installed so that the top of the fire extinguisher is not more than 3½ ft (1.07 m) above the floor.

6.1.3.8.3

In no case shall the clearance between the bottom of the hand portable fire extinguisher and the floor be less than 4 in. (102 mm).

6.1.3.9 Label Visibility.

6.1.3.9.1

Fire extinguishers shall be installed so that the fire extinguisher's operating instructions face outward.

6.1.3.9.2

Hazardous materials identification systems (HMIS) labels, 6-year maintenance labels, hydrostatic test labels, or other labels shall not be located or placed on the front of the extinguisher.

6.1.3.9.3

The restrictions of 6.1.3.9.2 shall not apply to the original manufacturer's labels, labels that specifically relate to the extinguisher's operation or fire classification, or inventory control labels specific to that extinguisher.

6.1.3.10* Cabinets.

6.1.3.10.1

Cabinets housing fire extinguishers shall not be locked, except where fire extinguishers are subject to malicious use and cabinets include a means of emergency access.

6.1.3.10.2

The location of fire extinguishers as described in 6.1.3.3.2 shall be marked conspicuously.

6.1.3.10.3

Fire extinguishers mounted in cabinets or wall recesses shall be placed so that the fire extinguisher's operating instructions face outward.

6.1.3.10.4*

Where fire extinguishers are installed in closed cabinets that are exposed to elevated temperatures, the cabinets shall be provided with screened openings and drains.

6.1.3.10.5

Cabinets or wall recesses for fire extinguishers shall be installed such that the extinguisher mounting heights specified in 6.1.3.8.1 and 6.1.3.8.2 are met.

6.1.3.10.6*

For fire resistance–rated walls, only surface-mounted cabinets or listed fire-rated cabinets shall be installed.

6.1.3.10.6.1

The provisions of 6.1.3.10.6 shall not apply to existing installations.

6.1.3.11*

Fire extinguishers shall not be exposed to temperatures outside the listed temperature range shown on the fire extinguisher label.

6.1.4 Antifreeze.

6.1.4.1

Fire extinguishers containing only plain water shall be protected to temperatures as low as −40°F (−40°C) by the addition of an antifreeze that is stipulated on the fire extinguisher nameplate.

6.1.4.2

Calcium chloride solutions shall not be used in stainless steel fire extinguishers.

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.

6.2 Installations for Class A Hazards.

6.2.1 Fire Extinguisher Size and Placement for Class A Hazards.

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

Criteria	Light Hazard Occupancy	Ordinary Hazard Occupancy	Extra Hazard Occupancy
Minimum rated single extinguisher	2-A	2-A	4-A
Maximum floor area per unit of A	3000 ft^2	1500 ft^2	1000 ft^2
Maximum floor area per extinguisher	11,250 ft^2	11,250 ft^2	11,250 ft^2
Maximum travel distance to extinguisher	75 ft	75 ft	75 ft

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.

6.2.1.2

The minimum number of extinguishers for Class A hazards shall be sufficient to meet the requirements of 6.2.1.2.1 through 6.2.1.2.3.

6.2.1.2.1

The minimum number of fire extinguishers for Class A hazards for each floor of a building shall be determined by dividing the total floor area by the maximum area to be protected per extinguisher as determined by Table 6.2.1.1. *(See Annex E.)*

6.2.1.2.2

Fire extinguishers shall be located so that the maximum travel distances shall not exceed 75 ft (22.9 m), except as modified by 6.2.1.4.

6.2.1.2.3

Where the quantity of extinguishers required to satisfy 6.2.1.2.2 exceeds the number calculated in 6.2.1.2.1, additional extinguishers shall be installed.

6.2.1.3

Smaller fire extinguishers that are rated on Class B and Class C fires but do not have a minimum 1-A rating shall not be used to meet the requirements of 6.2.1.

6.2.1.3.1

Fire extinguishers of lesser rating shall be permitted to be installed but shall not be considered as fulfilling any part of the requirements of Table 6.2.1.1, except as permitted in 6.2.1.3.1.1 and 6.2.1.3.1.2.

6.2.1.3.1.1

Up to two water-type extinguishers, each with 1-A rating, shall be permitted to be used to fulfill the requirements of one 2-A rated extinguisher.

6.2.1.3.1.2

Two 2½ gal (9.46 L) water-type extinguishers shall be permitted to be used to fulfill the requirements of one 4-A rated extinguisher.

6.2.1.4

Up to one-half of the complement of fire extinguishers specified in Table 6.2.1.1 shall be permitted to be replaced by uniformly spaced 1½ in. (38 mm) hose stations for use by the occupants of the building.

6.2.1.4.1

Where hose stations are so provided, they shall conform to NFPA 14.

6.2.1.4.2

The location of hose stations and the placement of fire extinguishers shall be such that the hose stations do not replace more than every other fire extinguisher.

6.2.1.5

Where the area of the floor of a building is less than that specified in Table 6.2.1.1, at least one fire extinguisher of the minimum size required shall be provided.

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.

6.3 Installations for Class B Hazards.

6.3.1 Spill Fires.

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

Type of Hazard	Basic Minimum Extinguisher Rating	Maximum Travel Distance to Extinguishers			
		ft		m	
Light	5-B	30	9.14		
	10-B			50	15.25
Ordinary	10-B	30	9.14		
	20-B			50	15.25
Extra	40-B	30	9.14		
	80-B			50	15.25

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 2½ 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.

6.3.1.2

Fire extinguishers of lesser rating, designed for small specific hazards within the general hazard area, shall be permitted to be installed but shall not be considered as fulfilling any part of the requirements of Table 6.3.1.1, unless permitted by 6.3.1.1.1 or 6.3.1.1.2.

6.3.1.3

Fire extinguishers shall be located so that the maximum travel distances do not exceed those specified in Table 6.3.1.1.

6.3.1.4

The protection requirements shall be permitted to be fulfilled with fire extinguishers of higher ratings, provided the travel distance to such larger fire extinguishers does not exceed 50 ft (15.25 m).

6.3.2 Flammable Liquids of Appreciable Depth.

6.3.2.1

Portable fire extinguishers shall not be installed as the sole protection for flammable liquid hazards of appreciable depth where the surface area exceeds 10 ft^2 (0.93 m^2).

6.3.2.2*

Where personnel who are trained in extinguishing fires in the protected hazards are located on the premises and capable of responding immediately, the maximum surface area shall not exceed 20 ft^2 (1.86 m^2).

6.3.2.3

For flammable liquid hazards of appreciable depth, a Class B fire extinguisher shall be provided on the basis of at least 2 numerical units of Class B extinguishing potential per 1 ft^2 (0.09 m^2) of flammable liquid surface of the largest hazard area.

6.3.2.4

AFFF- or FFFP-type fire extinguishers shall be permitted to be provided on the basis of 1-B of protection per 1 ft^2 (0.09 m^2) of hazard. *(For fires involving water-soluble flammable liquids, see 5.5.4.)*

6.3.2.5

Two or more fire extinguishers of lower ratings, other than AFFF- or FFFP-type fire extinguishers, shall not be used in lieu of the fire extinguisher required for the largest hazard area.

6.3.2.6

Up to three AFFF- or FFFP-type fire extinguishers shall be permitted to fulfill the requirements, provided the sum of the Class B ratings meets or exceeds the value required for the largest hazard area.

6.3.2.7

Travel distances for portable fire extinguishers shall not exceed 50 ft (15.25 m). *(See Annex E.)*

6.3.2.7.1

Scattered or widely separated hazards shall be individually protected.

6.3.2.7.2

A fire extinguisher in the proximity of a hazard shall be located to be accessible in the presence of a fire without undue danger to the operator.

6.3.3 Obstacle, Gravity/Three-Dimensional, and Pressure Fire Hazards.

6.3.3.1

Where hand portable fire extinguishers are installed or positioned for obstacle, gravity/three-dimensional, or pressure fire hazards, the actual travel distance to hazard shall not exceed 30 ft (9.1 m) unless otherwise specified. *(See 5.6.1.)*

6.3.3.2

Where wheeled fire extinguishers of 125 lb (56.7 kg) agent capacity or larger are installed or positioned for obstacle, gravity/three-dimensional, or pressure fire hazards, the actual travel distance to hazard shall not exceed 100 ft (30.5 m) unless otherwise specified. *(See 5.6.1.)*

6.4* Installations for Class C Hazards.

6.4.1

Fire extinguishers with Class C ratings shall be required where energized electrical equipment can be encountered.

6.4.2

The requirement in 6.4.1 shall include situations where fire either directly involves or surrounds electrical equipment.

6.4.3

Because fire is a Class A or Class B hazard, the fire extinguishers shall be sized and located on the basis of the anticipated Class A or Class B hazard.

6.5 Installations for Class D Hazards.

6.5.1*

Fire extinguishers or extinguishing agents with Class D ratings shall be provided for fires involving combustible metals.

6.5.2

Fire extinguishers or extinguishing agents (media) shall be located not more than 75 ft (22.9 m) of travel distance from the Class D hazard. *(See Section E.6.)*

6.5.3*

Portable fire extinguishers or extinguishing agents (media) for Class D hazards shall be provided in those work areas where combustible metal powders, flakes, shavings, chips, or similarly sized products are generated.

6.5.4*

Size determination shall be on the basis of the specific combustible metal, its physical particle size, area to be covered, and recommendations by the fire extinguisher manufacturer based on data from control tests.

6.6 Installations for Class K Hazards.

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).

6.6.2

Maximum travel distance shall not exceed 30 ft (9.1 m) from the hazard to the extinguishers.

6.6.3

All solid fuel cooking appliances (whether or not under a hood) with fire boxes of 5 ft^3 (0.14 m^3) volume or less shall have at least a listed 2-A rated water-type fire extinguisher or a 1.6 gal (6 L) wet chemical fire extinguisher that is listed for Class K fires.

Statement of Problem and Substantiation for Public Input

During a small fire in a healthcare building knowing where every fire extinguisher is at is mere inpossable. If their was a sign that was Projecting out in hallway it would have helped find that fire extinguisher that was hidden by people in the hallway watching. Fire Extinguisher are now recessed in walls with just the doors protruding making it harder to see, cabinets are painted white with red lettering or red cabinet with white lettering, Wall should be more identifiable where fire extinguishers are at.

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Submittal Date: Fri Mar 23 20:00:05 EDT 2018
Committee:

Public Input No. 84-NFPA 10-2019 [Chapter 6]

Chapter 6 Installation ~~of Portable Fire Extinguishers~~

6.1 General.

6.1.1* Number of Extinguishers.

The minimum number of fire extinguishers needed to protect a property shall be determined as outlined in this chapter.

6.1.1.1

The installation of extinguishers shall be independent of whether the building is equipped with automatic sprinklers, standpipe and hose, or other fixed protection equipment.

6.1.1.2

Additional extinguishers shall be permitted to be installed to provide more protection.

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.

6.1.2 Extinguisher Readiness.

Portable fire extinguishers shall be maintained in a fully charged and operable condition and shall be kept in their designated places at all times when they are not being used.

6.1.3 Placement.

6.1.3.1

Fire extinguishers shall be conspicuously located where they are readily accessible and immediately available in the event of fire.

6.1.3.2

Fire extinguishers shall be located along normal paths of travel, including exits from areas.

6.1.3.3 Visual Obstructions.

6.1.3.3.1

Fire extinguishers shall be installed in locations where they are visible except as permitted by 6.1.3.3.2.

6.1.3.3.2*

In rooms and in locations where visual obstructions cannot be avoided, signs or other means shall be provided to indicate the extinguisher location.

6.1.3.3.3

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

6.1.3.3.4

Signs or other means used to indicate fire extinguisher location shall be visible from the normal path of travel.

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 a 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.

6.1.3.5

Wheeled fire extinguishers shall be located in designated locations.

6.1.3.6

Fire extinguishers installed in vehicles or under other conditions where they are subject to dislodgement shall be installed in approved strap-type brackets specifically designed for this application.

6.1.3.7*

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

6.1.3.8 Installation Height.

6.1.3.8.1

Fire extinguishers having a gross weight not exceeding 40 lb (18.14 kg) shall be installed so that the top of the fire extinguisher is not more than 5 ft (1.53 m) above the floor.

6.1.3.8.2

Fire extinguishers having a gross weight greater than 40 lb (18.14 kg) (except wheeled types) shall be installed so that the top of the fire extinguisher is not more than 3½ ft (1.07 m) above the floor.

6.1.3.8.3

In no case shall the clearance between the bottom of the hand portable fire extinguisher and the floor be less than 4 in. (102 mm).

6.1.3.9 Label Visibility.

6.1.3.9.1

Fire extinguishers shall be installed so that the fire extinguisher's operating instructions face outward.

6.1.3.9.2

Hazardous materials identification systems (HMIS) labels, 6-year maintenance labels, hydrostatic test labels, or other labels shall not be located or placed on the front of the extinguisher.

6.1.3.9.3

The restrictions of 6.1.3.9.2 shall not apply to the original manufacturer's labels, labels that specifically relate to the extinguisher's operation or fire classification, or inventory control labels specific to that extinguisher.

6.1.3.10* Cabinets.

6.1.3.10.1

Cabinets housing fire extinguishers shall not be locked, except where fire extinguishers are subject to malicious use and cabinets include a means of emergency access.

6.1.3.10.2

The location of fire extinguishers as described in 6.1.3.3.2 shall be marked conspicuously.

6.1.3.10.3

Fire extinguishers mounted in cabinets or wall recesses shall be placed so that the fire extinguisher's operating instructions face outward.

6.1.3.10.4*

Where fire extinguishers are installed in closed cabinets that are exposed to elevated temperatures, the cabinets shall be provided with screened openings and drains.

6.1.3.10.5

Cabinets or wall recesses for fire extinguishers shall be installed such that the extinguisher mounting heights specified in 6.1.3.8.1 and 6.1.3.8.2 are met.

6.1.3.10.6*

For fire resistance–rated walls, only surface-mounted cabinets or listed fire-rated cabinets shall be installed.

6.1.3.10.6.1

The provisions of 6.1.3.10.6 shall not apply to existing installations.

6.1.3.11*

Fire extinguishers shall not be exposed to temperatures outside the listed temperature range shown on the fire extinguisher label.

6.1.4 Antifreeze.

6.1.4.1

Fire extinguishers containing only plain water shall be protected to temperatures as low as −40°F (−40°C) by the addition of an antifreeze that is stipulated on the fire extinguisher nameplate.

6.1.4.2

Calcium chloride solutions shall not be used in stainless steel fire extinguishers.

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.

6.2 Installations for Class A Hazards.

6.2.1 Fire Extinguisher Size and Placement for Class A Hazards.

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

Criteria	Light Hazard Occupancy	Ordinary Hazard Occupancy	Extra Hazard Occupancy
Minimum rated single extinguisher	2-A	2-A	4-A
Maximum floor area per unit of A	3000 ft^2	1500 ft^2	1000 ft^2
Maximum floor area per extinguisher	11,250 ft^2	11,250 ft^2	11,250 ft^2
Maximum travel distance to extinguisher	75 ft	75 ft	75 ft

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.

6.2.1.2

The minimum number of extinguishers for Class A hazards shall be sufficient to meet the requirements of 6.2.1.2.1 through 6.2.1.2.3.

6.2.1.2.1

The minimum number of fire extinguishers for Class A hazards for each floor of a building shall be determined by dividing the total floor area by the maximum area to be protected per extinguisher as determined by Table 6.2.1.1. *(See Annex E.)*

6.2.1.2.2

Fire extinguishers shall be located so that the maximum travel distances shall not exceed 75 ft (22.9 m), except as modified by 6.2.1.4.

6.2.1.2.3

Where the quantity of extinguishers required to satisfy 6.2.1.2.2 exceeds the number calculated in 6.2.1.2.1, additional extinguishers shall be installed.

6.2.1.3

Smaller fire extinguishers that are rated on Class B and Class C fires but do not have a minimum 1-A rating shall not be used to meet the requirements of 6.2.1.

6.2.1.3.1

Fire extinguishers of lesser rating shall be permitted to be installed but shall not be considered as fulfilling any part of the requirements of Table 6.2.1.1, except as permitted in 6.2.1.3.1.1 and 6.2.1.3.1.2.

6.2.1.3.1.1

Up to two water-type extinguishers, each with 1-A rating, shall be permitted to be used to fulfill the requirements of one 2-A rated extinguisher.

6.2.1.3.1.2

Two 2½ gal (9.46 L) water-type extinguishers shall be permitted to be used to fulfill the requirements of one 4-A rated extinguisher.

6.2.1.4

Up to one-half of the complement of fire extinguishers specified in Table 6.2.1.1 shall be permitted to be replaced by uniformly spaced 1½ in. (38 mm) hose stations for use by the occupants of the building.

6.2.1.4.1

Where hose stations are so provided, they shall conform to NFPA 14.

6.2.1.4.2

The location of hose stations and the placement of fire extinguishers shall be such that the hose stations do not replace more than every other fire extinguisher.

6.2.1.5

Where the area of the floor of a building is less than that specified in Table 6.2.1.1, at least one fire extinguisher of the minimum size required shall be provided.

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.

6.3 Installations for Class B Hazards.

6.3.1 Spill Fires.

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

Type of Hazard	Basic Minimum Extinguisher Rating	Maximum Travel Distance to Extinguishers			
		ft		m	
Light	5-B	30	9.14		
	10-B			50	15.25
Ordinary	10-B	30	9.14		
	20-B			50	15.25
Extra	40-B	30	9.14		
	80-B			50	15.25

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 2½ 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.

6.3.1.2

Fire extinguishers of lesser rating, designed for small specific hazards within the general hazard area, shall be permitted to be installed but shall not be considered as fulfilling any part of the requirements of Table 6.3.1.1, unless permitted by 6.3.1.1.1 or 6.3.1.1.2.

6.3.1.3

Fire extinguishers shall be located so that the maximum travel distances do not exceed those specified in Table 6.3.1.1.

6.3.1.4

The protection requirements shall be permitted to be fulfilled with fire extinguishers of higher ratings, provided the travel distance to such larger fire extinguishers does not exceed 50 ft (15.25 m).

6.3.2 Flammable Liquids of Appreciable Depth.

6.3.2.1

Portable fire extinguishers shall not be installed as the sole protection for flammable liquid hazards of appreciable depth where the surface area exceeds 10 ft^2 (0.93 m^2).

6.3.2.2*

Where personnel who are trained in extinguishing fires in the protected hazards are located on the premises and capable of responding immediately, the maximum surface area shall not exceed 20 ft^2 (1.86 m^2).

6.3.2.3

For flammable liquid hazards of appreciable depth, a Class B fire extinguisher shall be provided on the basis of at least 2 numerical units of Class B extinguishing potential per 1 ft^2 (0.09 m^2) of flammable liquid surface of the largest hazard area.

6.3.2.4

AFFF- or FFFP-type fire extinguishers shall be permitted to be provided on the basis of 1-B of protection per 1 ft^2 (0.09 m^2) of hazard. *(For fires involving water-soluble flammable liquids, see 5.5.4.)*

6.3.2.5

Two or more fire extinguishers of lower ratings, other than AFFF- or FFFP-type fire extinguishers, shall not be used in lieu of the fire extinguisher required for the largest hazard area.

6.3.2.6

Up to three AFFF- or FFFP-type fire extinguishers shall be permitted to fulfill the requirements, provided the sum of the Class B ratings meets or exceeds the value required for the largest hazard area.

6.3.2.7

Travel distances for portable fire extinguishers shall not exceed 50 ft (15.25 m). *(See Annex E.)*

6.3.2.7.1

Scattered or widely separated hazards shall be individually protected.

6.3.2.7.2

A fire extinguisher in the proximity of a hazard shall be located to be accessible in the presence of a fire without undue danger to the operator.

6.3.3 Obstacle, Gravity/Three-Dimensional, and Pressure Fire Hazards.

6.3.3.1

Where hand portable fire extinguishers are installed or positioned for obstacle, gravity/three-dimensional, or pressure fire hazards, the actual travel distance to hazard shall not exceed 30 ft (9.1 m) unless otherwise specified. *(See 5.6.1.)*

6.3.3.2

Where wheeled fire extinguishers of 125 lb (56.7 kg) agent capacity or larger are installed or positioned for obstacle, gravity/three-dimensional, or pressure fire hazards, the actual travel distance to hazard shall not exceed 100 ft (30.5 m) unless otherwise specified. *(See 5.6.1.)*

6.4* Installations for Class C Hazards.

6.4.1

Fire extinguishers with Class C ratings shall be required where energized electrical equipment can be encountered.

6.4.2

The requirement in 6.4.1 shall include situations where fire either directly involves or surrounds electrical equipment.

6.4.3

Because fire is a Class A or Class B hazard, the fire extinguishers shall be sized and located on the basis of the anticipated Class A or Class B hazard.

6.5 Installations for Class D Hazards.

6.5.1*

Fire extinguishers or extinguishing agents with Class D ratings shall be provided for fires involving combustible metals.

6.5.2

Fire extinguishers or extinguishing agents (media) shall be located not more than 75 ft (22.9 m) of travel distance from the Class D hazard. *(See Section E.6.)*

6.5.3*

Portable fire extinguishers or extinguishing agents (media) for Class D hazards shall be provided in those work areas where combustible metal powders, flakes, shavings, chips, or similarly sized products are generated.

6.5.4*

Size determination shall be on the basis of the specific combustible metal, its physical particle size, area to be covered, and recommendations by the fire extinguisher manufacturer based on data from control tests.

6.6 Installations for Class K Hazards.

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).

6.6.2

Maximum travel distance shall not exceed 30 ft (9.1 m) from the hazard to the extinguishers.

6.6.3

All solid fuel cooking appliances (whether or not under a hood) with fire boxes of 5 ft^3 (0.14 m^3) volume or less shall have at least a listed 2-A rated water-type fire extinguisher or a 1.6 gal (6 L) wet chemical fire extinguisher that is listed for Class K fires.

Statement of Problem and Substantiation for Public Input

Chapter 6 covers more than just extinguishers. The new title matches the style of the Chapter 7 title.

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Submittal Date: Thu Jun 20 11:13:45 EDT 2019
Committee: PFE-AAA

Public Input No. 11-NFPA 10-2018 [New Section after 6.1.3]

6.1.3 Placement

6.1.3.3 Fire extinguishers shall be conspicuously located where they are readily accessible outside of an elevator hoistway within 21 ft (6.4 m) of the centerline of each elevator door at each landing electrical equipment under the scope of NFPA 70, Article 620 is installed.

Additional Proposed Changes

File Name	Description	Approved
NFPA_10_6.1.3_Placement-Proposal.docx	Proposal to add subsection under 6.1.3 Placement	

Statement of Problem and Substantiation for Public Input

Rationale:
Currently the elevator industry predominantly manufactures and installs elevator configurations known as machine-room-less type elevators. The advent of this configuration eliminates what legacy equipment utilized, known as a machine room. Despite these machine-room-less type elevators by design having electromechanical equipment now installed in a building hallway where employees and members of the public may be present in normal and emergency scenarios, no provision has been made to address the hazards associated with this equipment in a public place.
The electrical equipment is subject to NFPA 70, 620.5 Working Clearances which require a 36” deep by 30” wide minimum clearance in the hallway in front of the equipment. This essentially consumes a 36” by 30” area of the floor of a hallway etc.. NFPA 70E also establishes clearances that would encroach this public area. Lastly with the machine room no longer existent, the area of various service activities related to a machine-room-less type elevator are now performed in this public area. This in turn may become a hazard in some scenarios wherein it encroaches a means of egress route as regulated in 29 CFR 1910. These routes must be 28” minimum, and minimize danger to employees, Additionally, model codes such as the International Fire Code have minimum corridor widths which vary but may be encroached due to the clearances set forth by NFPA 70, 29 CFR 1910 and NFPA 70E.
21 feet was chosen to be consistent with NFPA 72 establishing the elevator lobby in the form of where a fire alarm initiating device is restricted to. This distance is liberal as compared too the average size of an elevator machine room no longer in popular use.
The proposal understands this may result in a jurisdiction not only requiring an extinguisher in this proximity to address electrical equipment previously in a machine room now being in this public area but may also result in one being required simply due to elevator hall buttons, signals and key switches that are electrical. Due to additional hazards in the elevator hoistway not described in this proposal and no safe means identified as of yet to propose a portable fire extinguisher in an elevator hoistway, having an extinguisher at each landing in this proximity may be the mitigation to address this.
Due to these hazards associated with machine-room-less type elevators being now present in public areas exposing employees and the public to unmitigated risk this proposal attempts to provide some mitigation in the form of more ready access to a portable fire extinguisher to establish minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to provide a reasonable level of safety to persons affected by elevator equipment in a public space and at time egress routes in an emergency.

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Submittal Date: Thu Jun 28 16:39:03 EDT 2018

Committee:

July 10, 2019

To: Technical Committee on Portable Fire Extinguishers

From: R. Scott Hultstrom

Regarding: Proposed change to NFPA 10, 6.1.3.3

Dear Committee Members,

Regarding NFPA 10-Standard for Portable Fire Extinguishers, I respectfully submit this proposed change for your consideration.

Proposed Language:

6.1.3 Placement.

6.1.3.1 Fire extinguishers shall be conspicuously located where they are readily accessible and immediately available in the event of fire.
6.1.3.2 Fire extinguishers shall be located along normal paths of travel, including exits from areas.
6.1.3.3 Fire extinguishers shall be conspicuously located where they are readily accessible outside of an elevator hoistway within 21 ft (6.4 m) of the centerline of each elevator door at each landing electrical equipment under the scope of NFPA 70, Article 620 is installed.

Rationale:

Currently the elevator industry predominantly manufactures and installs elevator configurations known as machine-room-less type elevators. The advent of this configuration eliminates what legacy equipment utilized, known as a machine room. Despite these machine-room-less type elevators by design having electromechanical equipment now installed in a building hallway where employees and members of the public may be present in normal and emergency scenarios, no provision has been made to address the hazards associated with this equipment in a public place.

The electrical equipment is subject to NFPA 70, 620.5 Working Clearances which require a 36" deep by 30" wide minimum clearance in the hallway in front of the equipment. This essentially consumes a 36" by 30" area of the floor of a hallway etc.. NFPA 70E also establishes clearances that would encroach this public area. Lastly with the machine room no longer existent, the area of various service activities related to a machine-room-less type elevator are now performed in this public area. This in turn may become a hazard in some scenarios wherein it encroaches a means of egress route as regulated in 29 CFR 1910. These routes must be 28" minimum, and minimize danger to employees, Additionally, model codes such as the International Fire Code have minimum corridor widths which vary but may be encroached due to the clearances set forth by NFPA 70, 29 CFR 1910 and NFPA 70E.

21 feet was chosen to be consistent with NFPA 72 establishing the elevator lobby in the form of where a fire alarm initiating device is restricted to. This distance is liberal as compared too the average size of an elevator machine room no longer in popular use.

The proposal understands this may result in a jurisdiction not only requiring an extinguisher in this proximity to address electrical equipment previously in a machine room now being in this public area but may also result in one being required simply due to elevator hall buttons, signals and key switches that are electrical. Due to additional hazards in the elevator hoistway not described in this proposal and no safe means identified as of yet to propose a portable fire extinguisher in an elevator hoistway, having an extinguisher at each landing in this proximity may be the mitigation to address this.

Due to these hazards associated with machine-room-less type elevators being now present in public areas exposing employees and the public to unmitigated risk this proposal attempts to provide some mitigation in the form of more ready access to a portable fire extinguisher to establish minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from

the hazards of fire, explosion or dangerous conditions in new and existing buildings, structures and premises, and to provide a reasonable level of safety to persons affected by elevator equipment in a public space and at time egress routes in an emergency.

Public Input No. 116-NFPA 10-2019 [Section No. 6.1.3.3]

6.1.3.3 Visual Obstructions.

6.1.3.3.1

Fire extinguishers shall be installed in locations where they are visible except as permitted by 6.1.3.3.2 and 6 . 1.3.3.3 .

6.1.3.3.2*

In rooms and in locations where visual obstructions cannot be avoided, signs or other means shall be provided to indicate the extinguisher location.

6.1.3.3.3

Fire extinguishers shall be permitted to be installed in fire extinguisher cabinets provided the extinguisher is visible or signs or other means are provided to indicate the extinguisher location.

6.1.3.3.4

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

6.1.3.3.4 – 5 .

Signs or other means used to indicate fire extinguisher location shall be visible from the normal path of travel.

Statement of Problem and Substantiation for Public Input

Text should be added to address the visibility of extinguishers in extinguisher cabinets. Some extinguisher cabinets don't have transparent covers, windows, doors and therefore a sign is needed.

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Public Input No. 85-NFPA 10-2019 [Section No. 6.1.3.3]

6.1.3.3 ~~Visual Obstructions.~~ Markings of Extinguisher Locations

6.1.3.3.1

Fire extinguishers shall be installed in locations where they are visible except as permitted by 6.1.3.3.2.

6.1.3.3.2*

In rooms and in locations where visual obstructions cannot be avoided, signs or other means shall be provided to indicate the extinguisher location.

6.1.3.3.3

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

6.1.3.3.4

Signs or other means used to indicate fire extinguisher location shall be visible from the normal path of travel.

Statement of Problem and Substantiation for Public Input

The new title provides a better description of the subject matter covered in this section. “Visual obstructions” is only addressed in one paragraph as signs or other means used to indicate fire extinguisher location are covered throughout.

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Public Input No. 4-NFPA 10-2018 [Section No. 6.1.3.3.1]

6.1.3.3.1

Fire extinguishers shall be installed in locations where they are visible except as permitted by 6.1.3.3.2.

Fire extingushers shall be installed with in 10' of Electrical rooms.

Statement of Problem and Substantiation for Public Input

if Electoral panel catches fire and flames are at the door you can protect entry or put fire out quicker.

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Submittal Date: Sat Apr 07 13:23:06 EDT 2018
Committee:

Public Input No. 61-NFPA 10-2019 [Section No. 6.1.3.3.1]

6.1.3.3.1

Fire extinguishers shall ~~be installed in locations where they are visible except as permitted by 6.1.3.3.2~~ . not be obstructed or obsured from view.

Statement of Problem and Substantiation for Public Input

The wording "Fire extinguishers shall not be obstructed or obscured from view" has been recently removed from the standard and replaced with current wording. The reference to "obstruction" within the NFPA Standard dates back 40 years and is universal in other standards for pull stations, electrical panels, and other critical devices.
The addition of the word "visible" and combined with other recent changes in section 7.2.2, the standard has now allowed extinguishers to be installed in an obstructed location as long as there is signage indicating where the extinguisher is located.
The ADA (Americans with Disabilities Act) specifically calls out critical life safety devices (I.E. fire extinguishers) not have any barriers to access, allowing the installation of obstructed extinguishers is in direct conflict with the intent of the ADA.

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Committee: PFE-AAA

Public Input No. 62-NFPA 10-2019 [Section No. 6.1.3.3.2]

6.1.3.3.2*

In rooms and in locations where visual obstructions cannot be avoided, ~~signs or other~~ means shall be provided to indicate the extinguisher location.

Statement of Problem and Substantiation for Public Input

It seems like the Standard is allowing for signage to replace the "shall not be obstructed" edict that was in place in the standard for years.

The signage verbiage would indicate that it is acceptable for an extinguisher to be obstructed (during installation and subsequent monthly and annual inspections) as long as it has a sign indicating its location.

The ADA (Americans with Disabilities Act) specifically calls out critical life safety devices (I.E. fire extinguishers) not have any barriers to access, allowing the installation of obstructed extinguishers is in direct conflict with the intent of the ADA.

There is no sections in the standard that address the criteria for the signage. How big does the sign have to be? What is the sign made of? Where does the sign have to be located? What is the inspection criteria for the sign?

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Committee: PFE-AAA

Public Input No. 5-NFPA 10-2018 [Section No. 6.1.3.3.3]

6.1.3.3.3

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

signs by each fire extinguisher (should be mandatory install) be a projected sign double sided.

Statement of Problem and Substantiation for Public Input

Location of sign can be seen from a distance.

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Committee:

Public Input No. 86-NFPA 10-2019 [Section No. 6.1.3.6]

6.1.3.6

Fire extinguishers installed in vehicles or ~~under other~~ shall be installed in approved strap-type brackets specifically designed for this application. 6.1.3.X Fire extinguishers installed under conditions where they are subject to dislodgement shall be installed in approved strap-type brackets specifically designed ~~for this application~~ to prevent dislodgement .

Statement of Problem and Substantiation for Public Input

There are safety concerns with regard to placement of extinguishers where they are subject to dislodgement. The current placement of the text in 6.1.3.6 is often overlooked by users of the standard. Breaking out that topic in a new paragraph helps users of the standard and helps increase safety.

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Submittal Date: Thu Jun 20 11:19:00 EDT 2019
Committee: PFE-AAA

Public Input No. 38-NFPA 10-2019 [Section No. 6.1.3.8.1]

6.1.3.8.1

Fire extinguishers having a gross weight not exceeding 40 lb (18.14 kg) shall be installed so that the top of the fire extinguisher is not more than 5 ft (1.53 m) above the floor.

I would like to have the height of fire extinguishers not exceeding 40 lb changed to 3 1/2 feet above the floor

Statement of Problem and Substantiation for Public Input

It would be good to have all fire extinguishers the same height. This would make it easier during the fire inspection process and also for people with difficultly lifting as they would be closer to the floor level.

Submitter Information Verification

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Submittal Date: Mon Apr 01 12:06:22 EDT 2019
Committee: PFE-AAA

Public Input No. 1-NFPA 10-2018 [Section No. 6.1.3.9.3]

6.1.3.9.3*

The restrictions of 6.1.3.9.2 shall not apply to the original manufacturer's labels, labels that specifically relate to the extinguisher's operation or fire classification, or inventory control labels specific to that extinguisher.

Statement of Problem and Substantiation for Public Input

An explanatory note is needed for good guidance on what "inventory control labels" could include. There has been disagreement over what inventory control labels are and whether they can be placed on the front of the cylinder or not. Therefore, an asterisk has been added to this section number to indicate an annex note that will help to clarify this section. See PI-2

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 2-NFPA 10-2018 [New Section after A.6.1.3.7]	

Submitter Information Verification

Submitter Full Name: Joe Scibetta
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Submittal Date: Fri Mar 23 10:58:27 EDT 2018
Committee:

Public Input No. 117-NFPA 10-2019 [New Section after 6.1.3.10]

TITLE OF NEW CONTENT

Type your content here ... **6.1.3.10.X** Missing breaker bars or hammers and broken, damaged or missing break-front panels on fire extinguisher cabinets shall be replaced.

Statement of Problem and Substantiation for Public Input

Break-front panels are provided for the protection of the extinguisher, often from malicious use. Paragraph 6.1.3.10.1 requires a means for emergency access, including breaker bars and hammers. A requirement needs to be added to replace missing emergency equipment.

Submitter Information Verification

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Submittal Date: Fri Jun 21 09:30:49 EDT 2019
Committee: PFE-AAA

Public Input No. 88-NFPA 10-2019 [New Section after 6.1.3.10.1]

TITLE OF NEW CONTENT

Type your content here ... **6.1.3.10.1.1** Cabinets housing fire extinguishers with break-front panels shall be provided with breaker bars or hammers (designed for the purpose) for accessing the extinguisher during a fire emergency.

Statement of Problem and Substantiation for Public Input

It is unsafe to have a cabinet that has a scored front panel without a device, such as a breaker bar or hammer specifically designed for accessing the extinguisher.

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Submittal Date: Thu Jun 20 11:28:01 EDT 2019
Committee: PFE-AAA

Public Input No. 90-NFPA 10-2019 [New Section after 6.1.3.10.1]

TITLE OF NEW CONTENT

Type your content here ... **6.1.3.10.1.3** Fire extinguishers in cabinets shall be permitted to be monitored for tampering or theft by means of a switch and local alarm to indicate when the extinguisher is removed from the cabinet.

Statement of Problem and Substantiation for Public Input

Cabinet alarms provide an audible indication of a problem for the safety of building occupants.

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Public Input No. 94-NFPA 10-2019 [Section No. 6.1.3.10.2]

6.1.3.10.2

The location of fire extinguishers ~~as described in~~ 6.1.3.3.2 ~~shall be marked conspicuously~~ in cabinets that are not visible from the normal path of travel shall be provided with signs or other means to indicate the extinguisher location and the signs or other means shall be visible from the normal path of travel .

Statement of Problem and Substantiation for Public Input

The requirements of 6.1.3.3.2 and 6.1.3.3.4 are applicable to extinguishers in cabinets. The requirement in 6.1.3.10.2 needs to be updated to reflect those requirements.

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Public Input No. 118-NFPA 10-2019 [Section No. 6.1.3.10.6]

6.1.3.10.6*

For fire resistance–rated walls, only surface-mounted cabinets or listed fire-rated cabinets shall be installed.

6.1.3.10.6.1

The provisions of 6.1.3.10.6 shall not apply to existing installations, provided the fire resistance rating of the wall is maintained .

Statement of Problem and Substantiation for Public Input

Maintaining the fire resistance rating of the wall is important for safety.

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Public Input No. 91-NFPA 10-2019 [Section No. 6.1.3.10.6.1]

6.1.3.10.6.1

The provisions of 6.1.3.10.6 shall not apply to existing installations that are deemed equivalent by the AHJ .

Statement of Problem and Substantiation for Public Input

Clarification of original intent. Maintaining the fire resistance rating of the wall is important for safety.

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Public Input No. 172-NFPA 10-2019 [Section No. 6.1.5]

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.

Statement of Problem and Substantiation for Public Input

By including the wording of "and Alarm System" the Section now permits an unlisted and unsupervised stand-alone component to be recognized in the code and not have to be supervised for integrity and power. Listed and supervised are minimum requirements for any supplemental device within NFPA 72 and must be so in NFPA 10. This wording creates a new and lower threshold for life safety communication devices than what is accepted elsewhere in NFPA codes.
If the Committee wants to recognize a device within the Standard, that does not meet the levels of other supplemental devices within the code body, then it should create a separate line item that recognizes that the component does not meet the same life safety standard as other recognized equipment.

Submitter Information Verification

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Submittal Date: Wed Jun 26 09:57:28 EDT 2019
Committee: PFE-AAA

Public Input No. 63-NFPA 10-2019 [Section No. 6.1.5]

6.1.5 Electronic Monitoring ~~and Alarm System~~ .

Where an electronic ~~monitoring and alarm system~~ monitoring 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.

Statement of Problem and Substantiation for Public Input

The "and Alarm System" wording has allowed any electronic extinguisher monitoring device, as defined in other sections of the Standard, that is not connected to an alarm system to not have to be supervised for integrity and power.

Any safety device, regardless if it is an "add-on", a stand-alone device or a supplemental device must have the means of supervision of device integrity and power source.

Any Listed device would have to meet integrity and power supervision requirements to be Listed.

All extinguishers are required by the Standard to be Listed or approved. Why would an extinguisher monitoring device be allowed by the Standard to not be Listed?

Submitter Information Verification

Submitter Full Name: James Rose
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Submittal Date: Mon Jun 10 10:43:48 EDT 2019
Committee: PFE-AAA

Public Input No. 74-NFPA 10-2019 [Section No. 6.1.5]

6.1.5 Electronic Monitoring ~~and Alarm System.~~ Systems

Where an electronic monitoring ~~and alarm system is~~ 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.

Statement of Problem and Substantiation for Public Input

Through the introduction of the wording "and Alarm System" the Section now allows for an unlisted and an unsupervised stand-alone component to be recognized in the code and not have to be supervised for integrity and power. Listed and supervised are bare minimum requirements for any supplemental device within NFPA 72 and must be so in NFPA 10.

This wording creates a new and lower threshold for life safety communication devices than what is accepted elsewhere in NFPA codes.

If the Committee wants to recognize a device within the Standard, that does not meet the levels of other supplemental devices within the code body, then it should create a separate line item in a manner that acknowledges that the component does not meet the same life safety criteria as other recognized instruments.

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Submittal Date: Mon Jun 17 14:34:44 EDT 2019
Committee: PFE-AAA

Public Input No. 93-NFPA 10-2019 [New Section after 6.2]

TITLE OF NEW CONTENT

Type your content here ...

6.2.2 **Fire Extinguisher Size and Placement for Class A Hazards involving Accelerants.** A Class A Hazard that has the potential to involve flammable liquids shall be protected with l arge-capacity dry chemical extinguishers of 10 lb (4.54 kg) or greater and having a discharge rate of 1 lb/sec (0.45 kg/sec) or more.

6.2.2.1 Fire extinguishers for fire hazards with the potential to involve flammable liquids shall be located so that the maximum travel distance of 50 ft is not exceeded.

A.6.2.2 Many Class A fires start as small fires that are often smoldering with little surface burning. A Class A fire which involves a flammable liquid is initially more intense and spreads rapidly. An example of this type of fire is where an open container of flammable liquid is spilled in a room containing furnishings and is ignited. The fire will rapidly involve combustible materials, including the furnishings in the vicinity of the spill. The flammable liquid works as an accelerant and speeds up the rate at which the fire spreads. There is a marked difference in the rates of flame spread where flammable liquids are involved in a combustible materials fire versus one involving only common combustibles. For this reason, l arge-capacity dry chemical extinguishers are needed for Class A Hazards that have the potential to involve flammable liquids.

Statement of Problem and Substantiation for Public Input

A Class A fire which involves a flammable liquid will rapidly involve combustible materials in the vicinity of the spill. The flammable liquid works as an accelerant and speeds up the rate at which the fire spreads. Large-capacity dry chemical extinguishers are needed for Class A Hazards that have the potential to involve flammable liquids. Note: section 5.5 should be updated to match this new criterion.

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Committee: PFE-AAA

Public Input No. 51-NFPA 10-2019 [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

Criteria	Light Hazard Occupancy	Ordinary Hazard Occupancy	Extra Hazard Occupancy
Minimum rated single extinguisher	2-A	2-A	4-A
Maximum floor area per unit of A	3000 ft^2 (278.71 m^2)	1500 ft^2 (139.35 m^2)	1000 ft^2 (92.90 m^2)
Maximum floor area per extinguisher	11,250 ft^2 (1,045.16 m^2)	11,250 ft^2 (1,045.16 m^2)	11,250 ft^2 (1,045.16 m^2)
Maximum travel distance to extinguisher	75 ft (22.86 m)	75 ft (22.86 m)	75 ft (22.86 m)

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.

Statement of Problem and Substantiation for Public Input

In the table 6.2.1.1 the units are only ft, but in the table 6.3.1.1 is ft and m. It doesnt seem correct to use only one unit in one table and in the other table use the two units. this change is in order to make both tables to show the same info in both measure systems.

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Committee: PFE-AAA

Public Input No. 92-NFPA 10-2019 [Section No. 6.2.1.3]

~~6.2.1.3~~ –

~~Smaller fire extinguishers that are rated on Class B and Class C fires but do not have a minimum 1-A rating shall not be used to meet the requirements of~~ _

6.2.1 .

~~6.2.1.~~ ~~3.1~~ –

Fire extinguishers of lesser rating shall be permitted to be installed but shall not be considered as fulfilling any part of the requirements of Table 6.2.1.1, except as permitted in 6.2.1.3.1.1 and 6.2.1.3.1.2.

6.2.1.3.1.1

Up to two water-type extinguishers, each with 1-A rating, shall be permitted to be used to fulfill the requirements of one 2-A rated extinguisher.

6.2.1.3.1.2

Two 2½ gal (9.46 L) water-type extinguishers shall be permitted to be used to fulfill the requirements of one 4-A rated extinguisher.

Statement of Problem and Substantiation for Public Input

Paragraph is not needed. If an extinguisher has a BC rating and does not have a Class A rating, it obviously can't be installed to satisfy section 6.2.1. The paragraph creates more confusion than clarification. Renumber existing paragraphs accordingly.

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Submittal Date: Thu Jun 20 11:35:35 EDT 2019
Committee: PFE-AAA

Public Input No. 119-NFPA 10-2019 [Section No. 6.3.2.1]

6.3.2.1

Portable fire extinguishers shall ~~not~~ be permitted to be installed as the sole protection for flammable liquid hazards of appreciable depth ~~where~~ provided the surface area ~~exceeds~~ does not exceed 10 ft^2 (0.93 m^2).

Statement of Problem and Substantiation for Public Input

Editorial improvement.

Submitter Information Verification

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Committee: PFE-AAA

Public Input No. 120-NFPA 10-2019 [Section No. 6.3.2.2]

6.3.2.2*

Where personnel who are trained in extinguishing fires in the protected hazards are located on the premises and capable of responding immediately, the maximum surface area permitted to be protected solely by extinguishers shall be permitted to exceed 10 ft^2 (0.93 m^2), but shall not exceed 20 ft^2 (1.86 m^2).

Statement of Problem and Substantiation for Public Input

Editorial improvement.

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Public Input No. 6-NFPA 10-2018 [Section No. 6.6]

6.6 Installations for Class K Hazards.

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).

6.6. 1.1 Class K fire extinguishers shall not be required where residential cooking equipment is used for food warming or limited cooking, or where an occupancy prohibits deep fat frying.

6.6. 2 _

Maximum travel distance shall not exceed 30 ft (9.1 m) from the hazard to the extinguishers.

6.6.3

All solid fuel cooking appliances (whether or not under a hood) with fire boxes of 5 ft^3 (0.14 m^3) volume or less shall have at least a listed 2-A rated water-type fire extinguisher or a 1.6 gal (6 L) wet chemical fire extinguisher that is listed for Class K fires.

Statement of Problem and Substantiation for Public Input

The problem with the text is the word potential. Anywhere there is a cooking device, there is potential to cook with combustible cooking media. This added text attempts to better define the intent and exempt some cooking locations.
Class K extinguishers, like wet chemical (UL 300) fixed systems, are listed for a particular quantity and surface area of vegetable oil and the proposed text identifies particular operations where this is not likely to occur.
In addition, Annex F suggests that other types of extinguishers would be acceptable for non-commercial cooking applications.
The verbiage “where residential cooking equipment is used for food warming or limited cooking” used in 6.6.1.1 is taken from NFPA 101 Chapter 18/19.3.2.5.2.
Another similar proposal has been offered as an annex note.

Submitter Information Verification

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Submittal Date: Wed May 09 12:05:29 EDT 2018
Committee:

Public Input No. 37-NFPA 10-2019 [New Section after 6.6.2]

TITLE OF NEW CONTENT

Type your content here ...Placement/Installation of Class K fire extinguishers.. Class K fire extinguishers shalled be installed between the hazard and closet door of egress.

Statement of Problem and Substantiation for Public Input

During inspections within my community, we are finding Class K fire extinguishers to be installed in areas of kitchens that puts user in harms way. Some instances, if the fire becomes uncontrollable, the user must pass the hazards to exit the area. If its a requirement for the installation of a Class K extinguisher be between the equipment it is intended for and the closet egress, the user can stop the use of the extinguisher and safely exit the area quickly.

Submitter Information Verification

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Submittal Date: Tue Mar 12 11:56:25 EDT 2019
Committee: PFE-AAA

Public Input No. 121-NFPA 10-2019 [Section No. 6.6.3]

~~6.6.3~~ – 7 Solid Fuel Cooking Appliances

All solid fuel cooking appliances (whether or not under a hood) with fire boxes of 5 ft^3 (0.14 m^3) volume or less shall have at least a listed 2-A rated water-type fire extinguisher or a 1.6 gal (6 L) wet chemical fire extinguisher that is listed for Class K fires.

Statement of Problem and Substantiation for Public Input

Current paragraph 6.6.3 contains requirements for 2-A rated water extinguishers and Class K extinguishers for the protection of solid fuel cooking appliances. It should therefore be in a separate section from the 6.6 section on Class K Hazards.

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Submittal Date: Fri Jun 21 09:53:01 EDT 2019
Committee: PFE-AAA

Public Input No. 131-NFPA 10-2019 [Chapter 7 [Title Only]]

Modify current Chapter 7 Title as follows (addition is in "quotation marks" and italics.)

Chapter 7 Inspection, Maintenance, *"Reloading"*, and Recharging .

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

Kim R. Nessel
Rusoh Inc.

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Submittal Date: Mon Jun 24 14:15:42 EDT 2019
Committee: PFE-AAA

Public Input No. 161-NFPA 10-2019 [Section No. 7.1.1]

7.1.1 Responsibility.

The owner or designated agent or occupant of a property in which fire extinguishers are located shall be responsible for inspection, maintenance, reloading, and recharging. *(See 7.1.2.)*

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

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Submittal Date: Tue Jun 25 11:50:00 EDT 2019
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Public Input No. 132-NFPA 10-2019 [Section No. 7.1.2.1 [Excluding any Sub-Sections]]

Modify current 7.1.2.1 as follows (addition are in "quotation marks" and italics.)

7.1.2.1 _ Persons performing maintenance, " *reloading,"* _ and recharging of extinguishers shall be certified._

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

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Submittal Date: Mon Jun 24 14:20:56 EDT 2019
Committee: PFE-AAA

Public Input No. 133-NFPA 10-2019 [Section No. 7.1.2.1.1]

Modify current 7.1.2.1.1 – as follows (additions are in "quotations and italics".)

7.1.2.1.1 Persons training to become certified shall be permitted to perform maintenance, *"reloading,"* and recharging of extinguishers under the direct supervision and in the immediate presence of a certified person.___

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

Kim R. Nessel
Rusoh Inc.

Submitter Information Verification

Submitter Full Name: Kim Nessel
Organization: Rusoh Inc
Street Address:
City:
State:

Zip:
Submittal Date: Mon Jun 24 14:28:12 EDT 2019
Committee: PFE-AAA

Public Input No. 134-NFPA 10-2019 [Section No. 7.1.2.1.3]

Modify current 7.1.2.1.3 – as follows (addition is in "quotation marks" and italics.)

7.1.2.1.3 The test shall, at a minimum, be based upon knowledge of the "applicable" chapters and annexes of this standard.

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

Kim R. Nessel
Rusoh Inc.

Submitter Information Verification

Submitter Full Name: Kim Nessel
Organization: Rusoh Inc
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City:
State:

Zip:
Submittal Date: Mon Jun 24 14:34:39 EDT 2019
Committee: PFE-AAA

Public Input No. 152-NFPA 10-2019 [Section No. 7.1.2.2]

Modify current 7.1.2.2 as follows (addition are in "quotation marks" and italics.)

7.1.2.2

Persons performing maintenance, " *reloading,"* and recharging of extinguishers shall be trained and shall have available the appropriate manufacturer's servicing manual(s), the correct tools, recharge materials, lubricants, and manufacturer's replacement parts or parts specifically listed for use in the fire extinguisher.

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

Kim R. Nessel
Rusoh Inc.

Submitter Information Verification

Submitter Full Name: Kim Nessel
Organization: Rusoh Inc
Street Address:
City:

State:
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Submittal Date: Tue Jun 25 11:11:26 EDT 2019
Committee: PFE-AAA

Public Input No. 123-NFPA 10-2019 [New Section after 7.1.3]

TITLE OF NEW CONTENT

Type your content here ... **7.1.3.1 Whenever the removal and replacement of fire extinguishers from installed locations is necessary or desired during service, the owner shall be notified and the replacements properly documented.**

Statement of Problem and Substantiation for Public Input

This new proposal will help to ensure that fire extinguishers being removed or swapped out during service, are done so with the owner's knowledge and permission. It additionally ensures that any equipment being replaced or substituted meets with the owner's expectations and has been properly documented to address applicable fire extinguisher record keeping requirements.

Submitter Information Verification

Submitter Full Name: Robert Glass
Organization: Cintas Corporation
Street Address:
City:
State:
Zip:
Submittal Date: Fri Jun 21 16:56:57 EDT 2019
Committee: PFE-AAA

Public Input No. 69-NFPA 10-2019 [New Section after 7.1.3]

7.1.3 Replacement While Servicing.

7.1.3.1 Fire extinguishers removed from service for maintenance or recharging shall be replaced by a fire extinguisher suitable for the type of hazard being protected and shall be of at least equal rating.

7.1.3.2 Additionally, fire extinguishers removed from service for maintenance or recharging that have electronic monitoring devices installed shall be replaced with extinguishers that also have electronic monitoring installed.

Statement of Problem and Substantiation for Public Input

The standard does not address if the replacement of electronically monitored fire extinguishers requires an electronically monitored extinguisher be installed as the replacement.

Submitter Information Verification

Submitter Full Name: Norbert Makowka
Organization: National Association of Fire E
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 11 12:57:15 EDT 2019
Committee: PFE-AAA

Public Input No. 155-NFPA 10-2019 [Section No. 7.1.3]

Modify current 7.1.3 as follows (additions are in quotation marks and italics.)

7.1.3 Replacement While Servicing.

Fire extinguishers removed from service for maintenance, " *reloading,"* or recharging shall be replaced by a fire extinguisher suitable for the type of hazard being protected and shall be of at least equal rating.

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

Kim R. Nessel
Rusoh Inc.

Submitter Information Verification

Submitter Full Name: Kim Nessel
Organization: Rusoh Inc
Street Address:
City:

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Submittal Date: Tue Jun 25 11:16:53 EDT 2019
Committee: PFE-AAA

Public Input No. 163-NFPA 10-2019 [New Section after 7.1.4]

Tags used for recording

Tags shall have a grid printed on their reverse side with columns titled month, day, year, and initials. The months of the year must be pre-printed in the first column..

Additional Proposed Changes

File Name	Description	Approved
Monthly_Extinguisher_Inspection_Record.jpg	sample of preprinted months on the back of the tag	

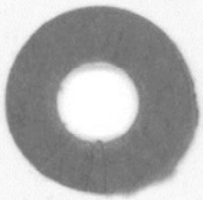
Statement of Problem and Substantiation for Public Input

When general occupants are asked to conduct monthly inspections, it should be easy as possible to track where they are in the calendar year and have a custom grid vs. a blank grid that gets blank stares or remains blank.

Submitter Information Verification

Submitter Full Name: Brian Codzandski
Organization:
Street Address:
City:
State:
Zip:
Submittal Date: Tue Jun 25 12:56:27 EDT 2019
Committee: PFE-AAA

DO NOT REMOVE



DO NOT REMOVE

MODEL NO._____ TYPE _____ SIZE _____

LOCATION _____

MFG._____ I.D. NO._____

30 DAY INSPECTION RECORD

MONTH	DAY/YR	INITIALS	ID NUMBER
JAN			
FEB			
MAR			
APR			
MAY			
JUN			
JUL			
AUG			
SEP			
OCT			
NOV			
DEC			

Public Input No. 32-NFPA 10-2018 [Section No. 7.1.4]

7.1.4 Tags or Labels.

7.1.4.1

Tags or labels intended for recording inspections, maintenance, or recharging shall be affixed so as not to obstruct the fire extinguisher use, fire extinguisher classification, or manufacturer's labels.

7.1.4.2

Labels indicating fire extinguisher use or classification, or both, shall be permitted to be placed on the front of the fire extinguisher.

7.1.4.3

Old service tags and labels shall be destroyed by the service company.

Statement of Problem and Substantiation for Public Input

We are running into clients that want to keep old tags and some are in date. We do not want to be liable if something happens. Thank you

Submitter Information Verification

Submitter Full Name: Joseph King
Organization: LaGrange Fire
Affiliation: AFSP
Street Address:
City:
State:
Zip:
Submittal Date: Wed Nov 14 20:27:07 EST 2018
Committee: PFE-AAA

Public Input No. 140-NFPA 10-2019 [Section No. 7.2]

7.2 _ Inspection.

7.2.1 Inspection Frequency.

7.2.1.1*

Fire extinguishers shall be manually inspected when initially placed in service.

7.2.1.2*

~~Fire extinguishers and~~ Class D extinguishing agents shall be inspected either manually or by means of an electronic monitoring device/system at intervals not exceeding 31 days.

7.2.1.2.1

~~Fire extinguishers and~~ Class D extinguishing agents shall be inspected at least once per calendar month.

7.2.1. 2.2

Fire extinguishers shall be inspected semi-annually.

7.2.1. 3*

Fire extinguishers and Class D extinguishing agents shall be manually inspected daily ~~or weekly when~~ , weekly, monthly, or quarterly when conditions exist that indicate the need for more frequent inspections.

7.2.1.4

Extinguishers that are electronically monitored for location only, such as those monitored by means of a switch to indicate when the extinguisher is removed from its bracket or cabinet, shall be manually inspected in accordance with 7.2.2.

7.2.2 Inspection Procedures.

Periodic inspection or electronic monitoring of fire extinguishers shall include a check of at least the following items:

(1) Location in designated place

(2) 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

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.

7.2.2.2

Any method(s) of inspection other than manual inspection shall require the approval of the authority having jurisdiction.

7.2.2.3*

In addition to 7.2.2, fire extinguishers shall be visually inspected in accordance with 7.2.2.4 if they are located where any of the following conditions exists:

(1) High frequency of fires in the past

(2) Severe hazards

(3) Locations that make fire extinguishers susceptible to mechanical injury or physical damage

(4) Exposure to abnormal temperatures or corrosive atmospheres

7.2.2.4

Where required by 7.2.2.3, the following inspection procedures shall be in addition to those addressed in 7.2.2:

(1) Verify that operating instructions on nameplates are legible and face outward

(2) Check for broken or missing safety seals and tamper indicators

(3) Examine for obvious physical damage, corrosion, leakage, or clogged nozzle

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) 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

7.2.3 Corrective Action.

When an inspection of any fire extinguisher reveals a deficiency in any of the conditions in 7.2.2 or 7.2.2.4, immediate corrective action shall be taken.

7.2.3.1 Rechargeable Fire Extinguishers.

When an inspection of any rechargeable fire extinguisher reveals a deficiency in any of the conditions in 7.2.2(4), 7.2.2(5), 7.2.2(7), or 7.2.2.4(1) through 7.2.2.4(3), the extinguisher shall be subjected to applicable maintenance procedures.

7.2.3.2 Nonrechargeable Dry Chemical Fire Extinguisher.

When an inspection of any nonrechargeable dry chemical fire extinguisher reveals a deficiency in any of the conditions listed in 7.2.2(4), 7.2.2(5), 7.2.2(7), or 7.2.2.4(1) through 7.2.2.4(3), the extinguisher shall be removed from further use, discharged, and destroyed at the direction of the owner or returned to the manufacturer.

7.2.3.3 Nonrechargeable Halon Agent Fire Extinguisher.

When an inspection of any nonrechargeable fire extinguisher containing a halon agent reveals a deficiency in any of the conditions listed in 7.2.2(4), 7.2.2(5), 7.2.2(7), or 7.2.2.4(1) through 7.2.2.4(3), the extinguisher shall be removed from service, shall not be discharged, and shall be returned to the manufacturer, a fire equipment dealer, or a distributor to permit recovery of the halon.

7.2.4 Inspection Record Keeping.

7.2.4.1 Manual Inspection Records.

7.2.4.1.1

Where manual inspections are conducted, records for manual inspections shall be kept on a tag or label attached to the fire extinguisher, on an inspection checklist maintained on file, or by an electronic method.

7.2.4.1.2

Where manual inspections are conducted, the month and year the manual inspection was performed and the initials of the person performing the inspection shall be recorded.

7.2.4.1.3

Personnel making manual inspections shall keep records of all fire extinguishers inspected, including those found to require corrective action.

7.2.4.1.4

Records for manual inspection shall be kept to demonstrate that at least the last 12 monthly inspections have been performed.

7.2.4.2 Electronic Inspection Records.

7.2.4.2.1

Where electronically monitored systems are employed for inspections, records shall be kept for fire extinguishers found to require corrective action.

7.2.4.2.2

Records for electronic monitoring shall be kept to demonstrate that at least the last 12 monthly inspections have been performed.

7.2.4.2.3

For electronically monitored fire extinguishers, where the extinguisher causes a signal at a control unit when a deficiency in any of the conditions listed in 7.2.2 occurs, record keeping shall be provided in the form of an electronic event log at the control panel.

Statement of Problem and Substantiation for Public Input

This section needs to be revised. I manage life safety for 11 hospitals. Across these hospitals we have 936 fire extinguishers. I pulled the monthly test results from 06/01/2014 - 06/01/2019. Based on these 56,160 test results we had 8 failures. This is a 0.014% failure rate. We expended approximately 5 minutes per extinguisher each month performing these inspections. Based on this we expend about 1000 hours annually inspecting fire extinguishers that are not failing. I urge the committee to please reduce this inspection to semi-annually at a minimum if not more. I believe the data supports the elimination of inspections and we could simply rely on the annual maintenance.

Submitter Information Verification

Submitter Full Name: Joshua Brackett
Organization: Baptist Health
Street Address:
City:
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Zip:
Submittal Date: Mon Jun 24 16:47:50 EDT 2019
Committee: PFE-AAA

Public Input No. 177-NFPA 10-2019 [Section No. 7.2]

7.2 Inspection.

7.2.1 Inspection Frequency.

7.2.1.1*

Fire extinguishers shall be manually inspected when initially placed in service.

7.2.1.2*

~~Fire extinguishers and~~ Class D extinguishing agents shall be inspected either manually or by means of an electronic monitoring device/system at intervals not exceeding 31 days.

7.2.1.2.1

~~Fire extinguishers and~~ Class D extinguishing agents shall be inspected at least once per calendar month.

7.2.1.3*

~~Fire extinguishers and~~ Class D extinguishing agents shall be manually inspected ~~daily or weekly~~ more frequently when conditions exist that indicate the need for more frequent inspections.

7.2.1.4

Extinguishers that are electronically monitored for location only, such as those monitored by means of a switch to indicate when the extinguisher is removed from its bracket or cabinet, shall be manually inspected in accordance with 7.2.2.

7.2.2 Inspection Procedures.

Periodic inspection or electronic monitoring of fire extinguishers shall include a check of at least the following items:

(1) Location in designated place

(2) 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

7.2.2.1

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

7.2.2.2

Any method(s) of inspection other than manual inspection shall require the approval of the authority having jurisdiction.

7.2.2.3*

In addition to 7.2.2, fire extinguishers shall be visually inspected in accordance with 7.2.2.4 if they are located where any of the following conditions exists:

(1) High frequency of fires in the past

(2) Severe hazards

(3) Locations that make fire extinguishers susceptible to mechanical injury or physical damage

(4) Exposure to abnormal temperatures or corrosive atmospheres

7.2.2.4

Where required by 7.2.2.3, the following inspection procedures shall be in addition to those addressed in 7.2.2:

(1) Verify that operating instructions on nameplates are legible and face outward

(2) Check for broken or missing safety seals and tamper indicators

(3) Examine for obvious physical damage, corrosion, leakage, or clogged nozzle

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) 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

7.2.3 Corrective Action.

When an inspection of any fire extinguisher reveals a deficiency in any of the conditions in 7.2.2 or 7.2.2.4, immediate corrective action shall be taken.

7.2.3.1 Rechargeable Fire Extinguishers.

When an inspection of any rechargeable fire extinguisher reveals a deficiency in any of the conditions in 7.2.2(4), 7.2.2(5), 7.2.2(7), or 7.2.2.4(1) through 7.2.2.4(3), the extinguisher shall be subjected to applicable maintenance procedures.

7.2.3.2 Nonrechargeable Dry Chemical Fire Extinguisher.

When an inspection of any nonrechargeable dry chemical fire extinguisher reveals a deficiency in any of the conditions listed in 7.2.2(4), 7.2.2(5), 7.2.2(7), or 7.2.2.4(1) through 7.2.2.4(3), the extinguisher shall be removed from further use, discharged, and destroyed at the direction of the owner or returned to the manufacturer.

7.2.3.3 Nonrechargeable Halon Agent Fire Extinguisher.

When an inspection of any nonrechargeable fire extinguisher containing a halon agent reveals a deficiency in any of the conditions listed in 7.2.2(4), 7.2.2(5), 7.2.2(7), or 7.2.2.4(1) through 7.2.2.4(3), the extinguisher shall be removed from service, shall not be discharged, and shall be returned to the manufacturer, a fire equipment dealer, or a distributor to permit recovery of the halon.

7.2.4 Inspection Record Keeping.

7.2.4.1 Manual Inspection Records.

7.2.4.1.1

Where manual inspections are conducted, records for manual inspections shall be kept on a tag or label attached to the fire extinguisher, on an inspection checklist maintained on file, or by an electronic method.

7.2.4.1.2

Where manual inspections are conducted, the month and year the manual inspection was performed and the initials of the person performing the inspection shall be recorded.

7.2.4.1.3

Personnel making manual inspections shall keep records of all fire extinguishers inspected, including those found to require corrective action.

7.2.4.1.4

Records for manual inspection shall be kept to demonstrate that at least the last 12 monthly inspections have been performed.

7.2.4.2 Electronic Inspection Records.

7.2.4.2.1

Where electronically monitored systems are employed for inspections, records shall be kept for fire extinguishers found to require corrective action.

7.2.4.2.2

Records for electronic monitoring shall be kept to demonstrate that at least the last 12 monthly inspections have been performed.

7.2.4.2.3

For electronically monitored fire extinguishers, where the extinguisher causes a signal at a control unit when a deficiency in any of the conditions listed in 7.2.2 occurs, record keeping shall be provided in the form of an electronic event log at the control panel.

Statement of Problem and Substantiation for Public Input

ASHE performed a survey to gather data on fire extinguisher monthly inspections. 70 health care organizations responded to the survey and provided data for over 305,000 monthly fire extinguisher inspections over the last 12 months. Of these inspections there was a 0.23% failure rate. A 99.77% success rate clearly indicates that monthly fire extinguisher inspections are outdated and no longer needed with the current advances in fire extinguisher manufacturing.

The survey also gathered data on costs to perform these inspections. On an annual basis the staff and contract services to complete these inspections average $5,400.00 per facility. Extrapolating this information nationally the cost of monthly fire extinguisher inspections adds over $28,000,000.00 to health care costs. With a 99.77% up time the need for monthly inspections is not warranted due to the impact to health care costs.

Submitter Information Verification

Submitter Full Name: Jonathan Flannery
Organization: AHA - ASHE
Affiliation: AHA-ASHE
Street Address:
City:
State:
Zip:
Submittal Date: Wed Jun 26 17:00:43 EDT 2019
Committee: PFE-AAA

Public Input No. 10-NFPA 10-2018 [Section No. 7.2.2 [Excluding any Sub-Sections]]

~~Periodic~~ Monthly inspection or electronic monitoring of fire extinguishers shall include a check of at least the following items:

(1) Location in designated place

(2) 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

Statement of Problem and Substantiation for Public Input

Periodically Does not hold an owner to any standard of measure of time. Even if the term Monthly is not used, a maximum period of time should be noted.

Also, I had to make a Public Inquiry for my Inspector II practicum Submittal Package. Carry on.

Submitter Information Verification

Submitter Full Name: Josh Doyle
Organization: Government of Nunavut
Street Address:
City:
State:
Zip:
Submittal Date: Thu Jun 28 16:23:53 EDT 2018
Committee:

Public Input No. 42-NFPA 10-2019 [Section No. 7.2.2 [Excluding any Sub-Sections]]

Periodic inspection or electronic monitoring of fire extinguishers shall include a check of at least the following items:

(1) Location in designated place

(2) 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

A.7.2.2 (3) Determination that there are no obstructions that block or hinder personnel access to the fire extinguisher.

Statement of Problem and Substantiation for Public Input

Added annex section to clarify that access to the fire extinguisher means that there are no obstructions to reaching the fire extinguisher and that there is a difference between item (2) visibility of the fire extinguisher's location and item (3) access to the extinguisher.

Submitter Information Verification

Submitter Full Name: Norbert Makowka
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Submittal Date: Thu May 30 15:03:11 EDT 2019
Committee: PFE-AAA

Public Input No. 64-NFPA 10-2019 [Section No. 7.2.2 [Excluding any Sub-Sections]]

Periodic inspection or electronic monitoring of fire extinguishers shall include a check of at least the following items:

(1) Location in designated place

(2) ~~Visibility of the extinguisher or means of indicating the extinguisher location~~

(3) ~~Access to the extinguisher~~

(4) No obstruction to access or visibility.

(5)

(6) Pressure gauge reading or indicator in the operable range or position

(7) Fullness determined by weighing or hefting

(8) Condition of tires, wheels, carriage, hose, and nozzle for wheeled extinguishers

(9) Indicator for nonrechargeable extinguishers using push-to-test pressure indicators

Statement of Problem and Substantiation for Public Input

The wording "no obstruction to access or visibility" has been recently changed to legitimize signage for extinguishers that have been installed in locations with obstructions to access. Allowing signage for obstructed access extinguisher location is in conflict with the ADA requirements for the removal of barriers of access.

The proposed wording is bringing the original inspection requirement wording back to where it has been for 40 years. The proposed wording will also put the inspection requirement back in line with other standards in regards to no obstruction to access of critical devices like pull stations, electrical panels, etc.

Submitter Information Verification

Submitter Full Name: James Rose
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Submittal Date: Mon Jun 10 11:00:27 EDT 2019
Committee: PFE-AAA

Public Input No. 65-NFPA 10-2019 [Section No. 7.2.2 [Excluding any Sub-Sections]]

Periodic inspection or electronic monitoring of fire extinguishers shall include a check of at least the following items:

(1) Location in designated place

(2) 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 for self-expelling type extinguishers, cartridge-operated extinguishers and pump tanks.

(6) Condition of tires, wheels, carriage, hose, and nozzle for wheeled extinguishers

(7) Indicator for nonrechargeable extinguishers using push-to-test pressure indicators

Statement of Problem and Substantiation for Public Input

Hefting was added to the Standard in 1978 - "For water types without gauges, their fullness shall be determined by hefting"

Hefting was originally an inspection requirement for fire extinguishers without gauges.

Hefting self-expelling type extinguishers and cartidge operated extinguishers is required because these devices do not have gauges.

Hefting is not required on dry chemical extinguishing systems and/or wheeled units which use the exact extinguishing agent as hand portable dry chemical fire extinguishers that are now required to be hefted.

Hefting is only performed to indicate if an extinguisher has been emptied.

Hefting will only determine if the extinguishing agent has been completely expelled and won't indicate if the pressurized expellant has leaked out.

There is no scientific way to quantify the hefting procedure.

Submitter Information Verification

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Submittal Date: Mon Jun 10 11:10:41 EDT 2019
Committee: PFE-AAA

Public Input No. 75-NFPA 10-2019 [Section No. 7.2.2 [Excluding any Sub-Sections]]

Periodic inspection or electronic monitoring of fire extinguishers shall include a check of at least the following items:

(1) Location in designated place

(2) Visibility of the extinguisher or means of indicating the extinguisher location

(3) ~~Access to the extinguisher~~ No Obstruction to access or visibility

(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

Statement of Problem and Substantiation for Public Input

Changing the terminology for the inspection criteria related to the obstruction of a fire extinguisher, eliminates language correlation the Standard had with the rest of NFPA and marginalizes the impact technology plays in the continual accountability of a fire extinguisher which is in conflict with NFPA 10 itself.

Recognized technology to electronically monitor fire extinguishers was designed to specifically meet the NFPA requirement to ensure no obstruction, which is a term within NFPA 10 that has been established for over 40 years and is universal in NFPA Standards for pull stations, electrical panels, and other critical devices.
Additionally, Section 1.2.2 of NFPA-10 states “Nothing in this standard shall be considered as a restriction on new technologies or alternative arrangements, provided that the level of protection as herein described is not lowered and is acceptable to the authority having jurisdiction.” The change in the terminology is a direct conflict with Section 1.2.2
Finally, the recognized technology that has been a part of NFPA 10 for a number of cycles, directly addresses concerns about accessibility of fire extinguishers as related to the Americans with Disabilities Act. “ADA III-4.4100 General. Public accommodations must remove architectural barriers and communication barriers that are structural in nature in existing facilities, when it is readily achievable to do so.”
Architectural barriers are physical elements of a facility that impede access by people with disabilities. These barriers include more than obvious impediments such as steps and curbs that prevent access by people who use wheelchairs. Impediments caused by the location of temporary or movable structures, such as furniture, equipment, and display racks, are also considered architectural barriers. These temporary or movable structures which can impede the accessibility of a fire extinguisher in a time of need would be detected by technology.
Changing the requirement to ensure that “Fire extinguishers shall not be obstructed” after 40 years of acceptance not only nullifies accepted technology, it now allows for barriers of access to be in place if a fire extinguisher is visible, putting the Standard in conflict with the rest of NFPA and with the ADA.

Submitter Information Verification

Submitter Full Name: John McSheffrey
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Submittal Date: Tue Jun 18 09:25:11 EDT 2019
Committee: PFE-AAA

Public Input No. 125-NFPA 10-2019 [Section No. 7.2.2.1]

~~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.~~

Statement of Problem and Substantiation for Public Input

Should building owners have the right to determine life safety considerations for their properties is unprecedented in any NFPA Standard. If the building owner is allowed to make decisions on the type of inspection it isn't a very big step for the building owner to then decide whether to have extinguishers. This is a very dangerous precedent.

Submitter Information Verification

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Submittal Date: Mon Jun 24 09:06:01 EDT 2019
Committee: PFE-AAA

Public Input No. 174-NFPA 10-2019 [Sections 7.2.2.1, 7.2.2.2]

Sections 7.2.2.1, 7.2.2.2

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~~ delete this section .

7.2.2.2

~~Any method(s) of inspection other than manual inspection shall require the approval of the authority having jurisdiction.~~ delete this section

Statement of Problem and Substantiation for Public Input

The problem that would be resolved is allowing the building owner to decide what requirements apply, regardless of the direction established by the AHJ.
The National Disability Rights Network is represented on several NFPA Technical Committees as a member in the USER category. It is from that perspective we offer the comments on this Public Input. The language indicated needs to be removed because it represents a total departure from the AHJ/Building Owner relationship established in the Codes and Standards. As USERs, the disability community relies on the AHJ to be our partner in life safety. This change allows the Building Owner to disregard a requirement established by an AHJ, and shakes our faith in the NFPA standards development process. If it had been left up to Building Owners, access ramps and accessible bathrooms would be few and far between.
Although this unusual allowance only applies to electronic monitoring of fire extinguishers, we are concerned that this could be but the first step on the proverbial slope to disregarding the AHJ on other life safety matters.
The deletions we offer restore the proper relationship between the AHJ and the Building Owner, as well as our faith in the NFPA.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 175-NFPA 10-2019 [New Section after 7.6.2]	

Submitter Information Verification

Submitter Full Name: Mark Larson
Organization: Mark Larson And Associates Llc
Affiliation: National Disability Rights Network
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Submittal Date: Wed Jun 26 13:22:04 EDT 2019
Committee: PFE-AAA

Public Input No. 66-NFPA 10-2019 [Sections 7.2.2.1, 7.2.2.2]

Sections 7.2.2.1, 7.2.2.2

~~**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.~~

~~**7.2.2.2** –~~

~~Any method(s) of inspection other than manual inspection shall require the approval of the authority having jurisdiction.~~

Statement of Problem and Substantiation for Public Input

Section 7.2.2.1 basically takes the Authority to mandate electronic extinguisher monitoring away from the Authority Having Jurisdiction.

The intent of all fire codes is to make people safer. This is accomplished by assembling knowledgeable people, discussing guidelines and setting the Standards. Section 7.2.2.1 undermines this whole process.

The intent of allowing the building owner discretion on determining life safety considerations is unprecedented in any NFPA Standard.

If the building owner is allowed to make decisions on the type of inspection (over an AHJ or a mandate), it isn't a very big step for the building owner to then decide whether to have extinguishers.

Section 7.2.2.1 seems like a blatant attempt of manipulating the code to have an "out" for any potential future mandating of extinguisher monitoring.

Section 7.2.2.2 can be interpreted as stating that a 5 minute manual inspection of a fire extinguisher that is done once every thirty days (in most cases by the building owner if done at all) is superior to electronically monitoring that same extinguisher 24 hours a day, 7 days a week.

Submitter Information Verification

Submitter Full Name: James Rose
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Submittal Date: Mon Jun 10 11:23:32 EDT 2019
Committee: PFE-AAA

Public Input No. 43-NFPA 10-2019 [Section No. 7.2.2.5]

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) 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

A.7.2.2.5 (3) Determination that there are no obstructions that block or hinder personnel access to the Class D container.

Statement of Problem and Substantiation for Public Input

Added annex section to clarify that access to the Class D agent container means that there are no obstructions to reaching the container and that there is a difference between item (2) visibility of the fire extinguisher's location and item (3) access to the extinguisher.

Submitter Information Verification

Submitter Full Name: Norbert Makowka
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Submittal Date: Thu May 30 15:09:34 EDT 2019
Committee: PFE-AAA

Public Input No. 142-NFPA 10-2019 [New Section after 7.2.3.3]

Insert as a new section 7.2.3.4

7.2.3.4 Self-Service Fire Extinguishers. When an inspection of any self-service fire extinguisher reveals a deficiency in any of the conditions listed in 7.2.2(5), or 7.2.2.4(1), through 7.2.2.4(3), the extinguisher shall be subjected to applicable maintenance procedures.

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

Kim R. Nessel
Rusoh Inc.

Submitter Information Verification

Submitter Full Name: Kim Nessel
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Submittal Date: Tue Jun 25 08:52:54 EDT 2019
Committee: PFE-AAA

Public Input No. 44-NFPA 10-2019 [New Section after 7.2.4]

Electronic Monitoring Systems Inspection

7.2.3.4 Electronic Monitoring Systems Inspection. Semiannually the components of an electronic monitoring device/system shall be inslected to vertify location and condition. (NFPA 72 Table 14.3.1 Item 19).

Statement of Problem and Substantiation for Public Input

The standard does not address the any inspection procedures for electronic monitoring systems or components. However, NFPA 72, National Fire Alarm and Signaling Code, does require semiannual inspection of these devices. Since NFPA 72 "establishes minimum required levels of performance" NFPA 10 should also adopt these minimum requirements.

Submitter Information Verification

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Submittal Date: Thu May 30 15:17:35 EDT 2019
Committee: PFE-AAA

Public Input No. 67-NFPA 10-2019 [Section No. 7.2.4.2.2]

7.2.4.2.2

~~Records for electronic monitoring shall be kept to demonstrate that at least the last 12 monthly inspections have been performed.~~

Statement of Problem and Substantiation for Public Input

This section contradicts Section 7.2.4.2.3 that states that record keeping for electronic monitoring can be done at the event log of the control panel.

Submitter Information Verification

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City:
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Submittal Date: Mon Jun 10 11:41:29 EDT 2019
Committee: PFE-AAA

Public Input No. 95-NFPA 10-2019 [New Section after 7.3.2.1]

TITLE OF NEW CONTENT

Type your content here ...

7.3.2.1.1 F ire extinguishers that show evidence of dents, mechanical injury, or corrosion to the extent as to indicate weakness shall be condemned or hydrostatically retested, except as outlined in 7.3.2.1.2 through 7.3.2.1.4.

7.3.2.1.2 Nonrechargeable fire extinguishers other than halon agent–type fire extinguishers that show evidence of dents, mechanical injury, or corrosion to the extent as to indicate weakness shall be discharged and discarded.

7.3.2.1.3 Nonrechargeable halon agent–type fire extinguishers that show evidence of dents, mechanical injury, or corrosion to the extent indicating weakness shall be removed from service, shall not be discharged, and shall be returned to the manufacturer, a fire equipment dealer, or a distributor to permit recovery of the halon.

7.3.2.1.4 Pump tanks shall not be required to comply with 7.3.2.1.1.

7.3.2.2 Examination of extinguishers. Where a fire extinguisher cylinder or shell exhibits one or more of the following conditions, it shall be condemned or destroyed by the owner or at the owner's direction:

(1)* Where repairs by soldering, welding, brazing, or use of patching compounds exist

(2) Where the cylinder threads are worn, corroded, broken, cracked, or nicked

(3) Where corrosion has caused pitting, including pitting under a removable nameplate or nameband assembly

(4) Where the fire extinguisher has been exposed to excessive heat, flame, or fire

(5) Where a calcium chloride–type extinguishing agent has been used in a stainless steel fire extinguisher

(6) Where the shell is of copper or brass construction joined by soft solder or rivets

(7) Where the depth of a dent exceeds 1⁄10 of the greatest dimension of the dent if not in a weld or exceeds 1⁄4 in. (6 mm) if the dent includes a weld

(8) Where any local or general corrosion, cuts, gouges, or dings have removed more than 10 percent of the minimum cylinder wall thickness

(9) Where a fire extinguisher has been used for any purpose other than that of a fire extinguisher

Statement of Problem and Substantiation for Public Input

Extinguishers should be externally examined for damage (The new text is similar to wording in section 8.4).

Submitter Information Verification

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Submittal Date: Thu Jun 20 11:47:22 EDT 2019
Committee: PFE-AAA

Public Input No. 122-NFPA 10-2019 [Section No. 7.3.2.1]

7.3.2.1 Physical Condition.

~~An~~ In addition to the inspection procedures required by section 7.2, an annual external visual examination of all fire extinguishers shall be made to detect obvious physical damage, corrosion, or nozzle blockage to verify that the operating instructions are present, legible, and facing forward, and that the HMIS information is present and legible, and to determine if a 6-year interval examination or hydrostatic test is due.

Statement of Problem and Substantiation for Public Input

Several AHJ's are interpreting that during the month that the annual is performed the monthly requirements outlined by Section 7.2 are required to be documented separately. This clearly was not the intent of the code by requiring an annual external examination which is more detailed than the monthly examination. This PI is an attempt to align the monthly inspection required during the annual month and the annual external inspection.

Submitter Information Verification

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Submittal Date: Fri Jun 21 10:10:17 EDT 2019
Committee: PFE-AAA

Public Input No. 179-NFPA 10-2019 [Section No. 7.3.2.1]

7.3.2.1 Physical Condition.

An annual external visual examination of all fire extinguishers shall be made to detect obvious physical damage, corrosion, or nozzle blockage to verify that the operating instructions are present, legible, and facing forward, and that the HMIS information is present and legible, and to determine if a 6-year interval examination or hydrostatic test is due along with the inspection procedures listed in 7 .2.2.

Statement of Problem and Substantiation for Public Input

Currently there have been AHJ's citing hospitals for not performing a monthly inspection during the month that the annual inspection is performed. This addition of the monthly inspection requirements within Section 7.2.2 will clearly indicate that the annual inspection should include the monthly inspection and that when an annual inspection is performed it will cover all aspects of the monthly inspection avoiding these types of citations.

Submitter Information Verification

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Submittal Date: Wed Jun 26 17:18:16 EDT 2019
Committee: PFE-AAA

Public Input No. 156-NFPA 10-2019 [Section No. 7.3.2.2.2]

Modify current 7.3.2.2.2 as follows (additions are in "quotation marks" and italic.)

7.3.2.2.2

Seals or tamper indicators on nonrechargeable-type *"and self-service fire"* extinguishers shall not be removed.

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

Kim R. Nessel
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Submittal Date: Tue Jun 25 11:22:54 EDT 2019
Committee: PFE-AAA

Public Input No. 145-NFPA 10-2019 [New Section after 7.3.3.6]

TITLE OF NEW CONTENT

Insert Annex A.7.3.3.6 (addition are in "quotation marks" and italics.)

"A.7.3.3.6 *In self-service extinguishers the mechanical means used to maintain the agent in a free-flowing condition provides a verifiable means to examine the free-flowing or compacted condition of the extinguishing agent without disassembling such extinguishers and exposing the agent to external contamination or environmental conditions. The mechanical means also provides an AHJ with a convient way to evaluate the condition of the agent within a self-service fire extinguisher."*

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

Kim R. Nessel
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Submitter Information Verification

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Submittal Date: Tue Jun 25 09:06:23 EDT 2019
Committee: PFE-AAA

Public Input No. 144-NFPA 10-2019 [Section No. 7.3.3.6]

Modify 7.3.3.6 as follows (additions in "quotation marks" and italics.)

7.3.3.6

Annual internal examination shall not be required for nonrechargeable fire extinguishers,*"self-service fire extinguishers",* carbon dioxide fire extinguishers, or stored-pressure fire extinguishers, except for those types specified in 7.3.3.2.

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

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Submittal Date: Tue Jun 25 09:02:39 EDT 2019
Committee: PFE-AAA

Public Input No. 45-NFPA 10-2019 [Section No. 7.6]

7.6 Electronic Monitoring System Maintenance.

7.6.1 Electronic Monitoring.

The components of the monitoring device/system shall be tested and maintained annually in accordance with the manufacturer's ~~listed~~ maintenance manual, with the following items included as a minimum:

(1) Power supply inspection/battery change

(2) Obstruction sensor inspection

(3) Location sensor inspection

(4) Pressure indication inspection

(5) Connection continuity inspection *(See 7.6.1.1 and 7.6.1.2.)*

7.6.1.1

One hundred percent of all units shall be tested upon initial installation or reacceptance with verification of ~~receipt of signal at the control panel or a local alarm.~~ communication between the device connecting the fire extinguisher electronic monitoring device/system and the fire alarm control or other control unit to ensure proper signals are received at the control unit and remote annunciator(s) if applicable. (NFPA 72 Table 14.4.3.2, Item 19)

7.6.1.2

~~Twenty~~ One hundred percent of units shall be tested annually ~~on a rotating basis so that all units are tested within a 5-year period.~~ with verification of communication between the device connecting the fire extinguisher electronic monitoring device/system and the fire alarm control unit or other control unit to ensure proper signals are received at the control unit and remote annunciator(s) if applicable. (NFPA 72 Table 14.4.3.2, Item 19)

7.6.2

When used in conjunction with fire alarm systems, fire extinguisher electronic monitoring devices shall be inspected and maintained in accordance with *NFPA 72* ~~and 7 . . 6.1.~~

7.6.3 Corrective Action.

When maintenance of any monitoring system reveals a deficiency, immediate corrective action shall be taken.

Statement of Problem and Substantiation for Public Input

NFPA 72 requires that all fire extinguisher electronic monitoring devices/systems be tested on an annual basis therefore, NFPA 10 should recognize the minimum requirements of NFPA 72 for the testing of these devices/systems. Reference NFPA 72 Table 14.4.3.2, Item 19.

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Public Input No. 175-NFPA 10-2019 [New Section after 7.6.2]

TITLE OF NEW CONTENT

Add section 7.6.2.1: When used in conjunction with non-fire alarm systems, fire extinguisher electronic monitoring devices shall be inspected and maintained as required in 7.6.1 through 7.6.2.2 and the manufacturer's listed installation and maintenance manual(s).

Statement of Problem and Substantiation for Public Input

The problem that would be resolved is allowing non-listed devices to be used in the notification loop for life safety equipment.
When section 6.1.5 was added, section 7.1.5.2 was deleted. The deleted section required electronic monitoring devices to be 'listed'. The language deleted also removed recognition of stand-alone systems or monitoring by non-fire alarm systems.
Electronic monitoring of fire extinguishers has proven to be, in our opinion, a critical element in monitoring the integrity of a life safety protection component. Not requiring a 'listing' for a vital component fly's in the face of the traditions and established life safety standards created through the NFPA process.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 174-NFPA 10-2019 [Sections 7.2.2.1, 7.2.2.2]	

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Committee: PFE-AAA

Public Input No. 68-NFPA 10-2019 [New Section after 7.6.2]

TITLE OF NEW CONTENT

7.6.2.1 When used in conjunction with non-fire alarm systems, fire extinguisher electronic monitoring devices shall be inspected and maintained as required in 7.6.1 through 7.6.2.2 and the manufacturer's listed installation and maintenance manual (s).

Statement of Problem and Substantiation for Public Input

This section was inexplicably dropped when changes where made to the Standard in the past. There was no substantiation in any of the technical committees archives that detail why this section was dropped.

Nearly half of the electronic extinguisher monitoring systems installed are reporting back to non-fire alarm systems. By removing any reference to non-fire alarm systems in the Standard, all code recognition of stand-alone systems or monitoring by non-fire alarm systems is removed.

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Public Input No. 148-NFPA 10-2019 [Section No. 7.8]

7.8 Extinguisher Recharging and Extinguishing Agents.

7.8.1* General.

7.8.1.1

All rechargeable-type fire extinguishers shall be recharged after any use or when the need is indicated by an inspection or servicing.

7.8.1.2*

When recharging is performed, the manufacturer's service manual shall be followed. *(For recharge agents, see 7.8.3.)*

7.8.1.3*

The amount of recharge agent shall be verified by weighing.

7.8.1.3.1

For those fire extinguishers that do not have the gross weight marked on the nameplate or valve, a permanent label that indicates the gross weight shall be affixed to the cylinder.

7.8.1.3.2

The added label containing the gross weight shall be a durable material of a pressure-sensitive, self-destruct type. *(For stored-pressure water-type extinguishers, see 7.8.3.10.)*

7.8.1.3.3

Pump tank water and pump tank calcium chloride–based antifreeze types shall not be required to have weight marked.

7.8.1.3.4*

After recharging, a leak test shall be performed on stored-pressure and self-expelling types of fire extinguishers.

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.

7.8.2 Extinguisher Recharging Frequency for Certain Types of Extinguishers.

7.8.2.1 Pump Tank.

Every 12 months, pump tank water and pump tank calcium chloride–based antifreeze types of fire extinguishers shall be recharged with new chemicals or water as applicable.

7.8.2.2 Wetting Agent.

The agent in stored-pressure wetting agent fire extinguishers shall be replaced annually.

7.8.2.2.1

Only the agent specified on the nameplate shall be used for recharging.

7.8.2.2.2

The use of water or any other additives shall be prohibited.

7.8.2.3 AFFF and FFFP.

7.8.2.3.1

The premixed agent in liquid charge–type AFFF and FFFP fire extinguishers shall be replaced at least once every 3 years.

7.8.2.3.2

Only the foam agent specified on the extinguisher nameplate shall be used for recharge.

7.8.2.3.3

The agent in nonpressurized AFFF and FFFP fire extinguishers that is subjected to agent analysis in accordance with manufacturer's instructions shall not be required to comply with 7.8.2.3.1.

7.8.3* Recharge Agents.

7.8.3.1

Only those agents specified on the nameplate or agents proven to have equal chemical composition, physical characteristics, and fire-extinguishing capabilities shall be used.

7.8.3.1.1

Agents listed specifically for use with that fire extinguisher shall be considered to meet these requirements.

7.8.3.2* Mixing of Dry Chemicals.

Multipurpose dry chemicals shall not be mixed with alkaline-based dry chemicals.

7.8.3.3 Topping Off.

7.8.3.3.1

The remaining dry chemical in a discharged fire extinguisher shall be permitted to be re-used, provided that it is thoroughly checked for the proper type, contamination, and condition.

7.8.3.3.2

Dry chemical found to be of the wrong type or contaminated shall not be re-used.

7.8.3.4 Dry Chemical Agent Re-Use.

7.8.3.4.1

The dry chemical agent shall be permitted to be re-used, provided a closed recovery system is used and the agent is stored in a sealed container to prevent contamination.

7.8.3.4.2

Prior to re-use, the dry chemical shall be thoroughly checked for the proper type, contamination, and condition.

7.8.3.4.3

Where doubt exists with respect to the type, contamination, or condition of the dry chemical, the dry chemical shall be discarded.

7.8.3.4.4 Dry Chemical Closed Recovery System.

7.8.3.4.4.1

The system shall be constructed in a manner that does not introduce foreign material into the agent being recovered.

7.8.3.4.4.2

The system shall have a means for visual inspection of the recovered agent for contaminants.

7.8.3.5 Dry Powder.

7.8.3.5.1

Pails or drums containing dry powder agents for scoop or shovel application for use on metal fires shall be kept full and sealed with the lid provided with the container.

7.8.3.5.2

The dry powder shall be replaced if found damp. *(See A.7.8.3.)*

7.8.3.6* Removal of Moisture.

For all non-water types of fire extinguishers, any moisture shall be removed before recharging.

7.8.3.7* Halogenated Agent.

Halogenated agent fire extinguishers shall be charged with only the type and weight of agent specified on the nameplate.

7.8.3.8 Halogenated Agent Re-Use.

7.8.3.8.1

The removal of Halon 1211 from fire extinguishers shall be done using only a listed halon closed recovery system.

7.8.3.8.2

The removal of agent from other halogenated agent fire extinguishers shall be done using only a closed recovery system.

7.8.3.8.3

The fire extinguisher shall be examined internally for contamination or corrosion or both.

7.8.3.8.4

The halogenated agent retained in the system recovery cylinder shall be re-used only if no evidence of internal contamination is observed in the fire extinguisher cylinder.

7.8.3.8.5

Halogenated agent removed from fire extinguishers that exhibits evidence of internal contamination or corrosion shall be processed in accordance with the fire extinguisher manufacturer's instructions.

7.8.3.9* Carbon Dioxide.

7.8.3.9.1

The vapor phase of carbon dioxide shall be not less than 99.5 percent carbon dioxide.

7.8.3.9.2

The water content shall be not more than 60 parts per million (ppm) by weight at −52°F (−47°C) dew point.

7.8.3.9.3

Oil content shall not exceed 10 ppm by weight.

7.8.3.10* Water Types.

The amount of liquid agent shall be determined by using one of the following:

(1) Exact measurement by weight

(2) Exact measurement by volume

(3) Anti-overfill tube, if provided

(4) Fill mark on fire extinguisher shell, if provided

7.8.3.10.1

Only the agent specified on the extinguisher nameplate shall be used for recharge.

7.8.3.10.2

Only additives identified on the original nameplate shall be permitted to be added to water-type extinguishers.

7.8.3.11 Wet Chemical and Water Mist Agent Re-Use.

7.8.3.11.1

Wet chemical and water mist agents shall not be re-used.

7.8.3.11.2

If a wet chemical or water mist extinguisher is partially discharged, all remaining wet chemical or water mist shall be discarded.

7.8.3.11.3

Wet chemical or water mist agent shall be discarded and replaced at the hydrostatic test interval.

7.8.3.11.3.1

Only the agent specified on the extinguisher nameplate shall be used for recharge.

7.8.4 Recharging Expellant Gas for Stored-Pressure Fire Extinguishers.

7.8.4.1

Only standard industrial-grade nitrogen with a maximum dew point of −60°F (−51°C), in accordance with CGA G-10.1, *Commodity Specification for Nitrogen*, shall be used to pressurize stored-pressure dry chemical and halogenated-type fire extinguishers that use nitrogen as a propellant.

7.8.4.2

Halogenated-type fire extinguishers that require argon shall be pressurized with argon with a dew point of −65°F (−54°C) or lower.

7.8.4.3

Compressed air shall be permitted to be used from special compressor systems capable of delivering air with a dew point of −60°F (−51°C) or lower. *(See Annex J.)*

7.8.4.3.1

The special compressor system shall be equipped with an automatic monitoring and alarm system to ensure that the dew point remains at or below −60°F (−51°C) at all times.

7.8.4.3.2

Compressed air through moisture traps shall not be used for pressurizing even though so stated in the instructions on older fire extinguishers.

7.8.4.3.3

Compressed air without moisture removal devices shall be permitted for pressurizing water extinguishers and foam hand extinguishers only.

7.8.4.4*

Class D wet chemical, water mist, and halogenated agent fire extinguishers shall be repressurized only with the type of expellant gas referred to on the fire extinguisher label.

7.8.4.5

A rechargeable stored-pressure-type fire extinguisher shall be pressurized only to the charging pressure specified on the fire extinguisher nameplate.

7.8.4.5.1

The manufacturer's pressurizing adapter shall be connected to the valve assembly before the fire extinguisher is pressurized.

7.8.4.5.2

A regulated source of pressure, set no higher than 25 psi (172 kPa) above the operating (service) pressure, shall be used to pressurize fire extinguishers.

7.8.4.5.3

The gauge used to set the regulated source of pressure shall be calibrated at least annually.

7.8.4.6*

An unregulated source of pressure, such as a nitrogen cylinder without a pressure regulator, shall not be used.

7.8.4.7*

A fire extinguisher shall not be left connected to the regulator of a high-pressure source for an extended period of time.

7.8.4.8 Recharge Record Keeping.

7.8.4.8.1

Each fire extinguisher shall have a tag or label attached that indicates the month and year recharging was performed, identifies the person performing the service, and identifies the name of the agency performing the work.

7.8.4.8.2

Each extinguisher that has been recharged shall have a verification-of-service collar located around the neck of the container, except as identified in 7.11.4.

Modify current 7.8 Title as follows (addition is in "quotation marks" and italics.)

7.8 Extinguisher *"Reloading,"* Recharging and Extinguishing Agents.

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in

NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where “universal parts” are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

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Public Input No. 149-NFPA 10-2019 [New Section after 7.8.1.3.5]

TITLE OF NEW CONTENT

Insert after 7.8.1.3.5

7.8.1.4 All self-service fire extinguishers shall be reloaded after any use or when the need is indicated by an inspection or servicing.

7.8.1.5 When reloading is performed, the manufacturer's instructions shall be followed.

7.8.1.6 The amount of extinguishing agent used to reload a self-service fire extinguisher shall be obtained in a pre-weighed, factory-filled container from the manufacturer or an organization acceptable to the authority having jurisdiction.

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

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Public Input No. 168-NFPA 10-2019 [Section No. 7.8.2.3.1]

7.8.2.3.1

The premixed agent in pressurized liquid charge–type AFFF and FFFP fire extinguishers shall be replaced ~~at least once every 3 years~~ following the fire extinguisher manufactures recommendations, not to exceed the 5 year hydrostatic test interval .

Statement of Problem and Substantiation for Public Input

Substantiation
The existing language currently requires and mandates the unnecessary disposal and replacement of all pre-mixed foam solutions within sealed stored pressure fire extinguisher models, which are not subject to the same type of contamination concerns that might exist with non-pressurized forms of hardware. The suggested language allows the fire extinguisher manufacture to provide agent specific performance replacement recommendations within the mandated 5 year hydro test replacement limitation. This will help eliminate concerns associated with waste, unnecessary service costs and environmental impact.

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Public Input No. 167-NFPA 10-2019 [Section No. 7.8.3.4.1]

7.8.3.4.1

The dry chemical agent shall be permitted to be re-used ~~, provided~~ following the fire extinguisher manufacturers recommendations or a closed recovery system is used and the agent is properly stored in a sealed container to prevent contamination.

Statement of Problem and Substantiation for Public Input

Substantiation
The existing language is problematic in that it prohibits and conflicts with various established field filling recommendations, as well as existing approval agency equipment performance testing practices and methods. Current language implies the potential loss of agent fines is of greater concern, than the common agent mixing and contamination conditions often associated with some types of closed recovery system practices. Closed recovery systems also do not have the ability to properly address the long standing dry chemical agent examination procedure and acceptance recommendations identified for reuse within NFPA-17 and OSHA part 1910.161.(2).

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Public Input No. 96-NFPA 10-2019 [Section No. 7.8.3.5.2]

7.8.3.5.2

The dry powder shall be replaced if found damp.~~(See~~

A. ~~7~~ **7 .8.3 . 5.2** . Dry powder used for combustible metal fires (Class D) should not be allowed to become damp, because the powder will not be free flowing. In addition, when dry powder contains sufficient moisture, a hazardous reaction could result when applied to a metal fire.

Statement of Problem and Substantiation for Public Input

Only the last paragraph of A.7.8.3 relates to 7.8.3.5.2. This paragraph should be a separate annex relating to 7.8.3.5.2.

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Public Input No. 97-NFPA 10-2019 [Section No. 7.8.3.6]

7.8.3.6* Removal of Moisture.

~~For all~~ All non-water ~~types of fire~~ extinguishers ~~, any moisture~~ shall be ~~removed~~ throroughly dried before recharging.

Statement of Problem and Substantiation for Public Input

This requirement should address the activity of drying, similar to 8.2.2.1.

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Public Input No. 99-NFPA 10-2019 [New Section after 7.8.4.8.1]

TITLE OF NEW CONTENT

Type your content here ...

7.8.4.8.1.1 The tag or label, as a minimum, shall identify the following:

(1) Month and year recharging was performed

(2) Person performing the work

(3) Name of the agency performing the work

Statement of Problem and Substantiation for Public Input

The paragraph should be reformatted to match 7.3.4.1.1 and other tag and label requirements.

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Public Input No. 98-NFPA 10-2019 [Section No. 7.8.4.8.1]

7.8.4.8.1

Each fire extinguisher shall have a tag or label securely attached that indicates ~~the month and year~~ recharging was performed~~, identifies the person performing the service, and identifies the name of the agency performing the work~~ .

Statement of Problem and Substantiation for Public Input

The paragraph should be reformatted to match 7.3.4.1.1 and other tag and label requirements.

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Public Input No. 100-NFPA 10-2019 [Section No. 7.9]

7.9* Pressure Gauges. Broken, cracked, damaged, and nonworking pressure gauges shall be replaced.

7.9.1

Replacement pressure gauges shall have the correct indicated charging (service) pressure.

7.9.2

Replacement pressure gauges shall be marked for use with the agent in the fire extinguisher.

7.9.3

Replacement pressure gauges shall be compatible with the fire extinguisher valve body material.

Statement of Problem and Substantiation for Public Input

There currently is no requirement to replace damaged and nonworking gauges.

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Public Input No. 46-NFPA 10-2019 [New Section after 7.11.4]

7.11.4.4 Pump Tank fire extinguishers shall not be required to have a verification-of-service collar installed.

Statement of Problem and Substantiation for Public Input

Included pump type fire extinguishers in the service collar exemption section.

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Public Input No. 101-NFPA 10-2019 [Section No. 7.11.4.1]

7.11.4.1

New extinguishers requiring an initial charge in the field (such as pressurized water, AFFF, FFFP, or wet chemical extinguishers) shall not be required to have a verification-of-service collar installed when initially placed in service .

Statement of Problem and Substantiation for Public Input

Clarification. This requirement applies only when the extinguisher is initially placed in service. Paragraph 7.11 applies when these extinguishers are serviced.

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Public Input No. 48-NFPA 10-2019 [Section No. 8.1]

8.1– * General.

A. 8.1 Since pump type fire extinguishers do not utilize a pressure vessel, hydrostatic testing of the agent container is not required .

8. 1.1

Pressure vessels used as fire extinguishers and specified components of fire extinguishers shall be hydrostatically tested in accordance with this chapter.

8.1.2

Cylinders and cartridges bearing U.S. Department of Transportation (DOT) or Transport Canada (TC) markings shall be retested in accordance with the applicable DOT or TC regulations.

8.1.2.1

Hydrostatic testing shall be performed by persons who are trained in pressure testing procedures and safeguards complying with 7.1.2 and who have testing equipment, facilities, and an appropriate manufacturer's service manual(s) available.

8.1.2.1.1

Personnel performing hydrostatic testing shall be certified by an organization with a certification program acceptable to the authority having jurisdiction.

8.1.2.1.2

Hydrostatic testing facilities with a DOT certification [requalification identification number (RIN)] or a TC certification shall be permitted to perform the task of hydrostatic testing without having additional certification as a fire extinguisher technician as outlined in 7.1.2.

8.1.2.1.3*

Where hydrostatic testing is subcontracted to a facility described in 8.1.2.1.1, an extinguisher technician complying with 7.1.2 shall perform assembly and disassembly of valves and cylinders, replacement of any parts or components, and all other extinguisher service work.

8.1.3

A hydrostatic test shall always include both an internal and an external visual examination of the cylinder.

8.1.4

Hydrostatic testing shall be conducted using water or another compatible noncompressible fluid as the test medium.

8.1.4.1

Air or other gases shall not be used as the sole medium for pressure testing.

8.1.4.2

All air shall be vented prior to hydrostatic testing, to prevent violent and dangerous failure of the cylinder.

8.1.5*

Fire extinguishers having aluminum cylinders or shells suspected of being exposed to temperatures in excess of 350°F (177°C) shall be removed from service and subjected to a hydrostatic test.

Statement of Problem and Substantiation for Public Input

Added an annex section to 8.1 to clarify that since pump type fire extinguishers do not have a pressure vessel a hydrostatic test is not required.

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Public Input No. 150-NFPA 10-2019 [New Section after 8.1.5]

TITLE OF NEW CONTENT

Insert as a new section 8.1.6

8.1.6 Self-service fire extinguishers shall not be hydrostatically tested but shall be removed from service at a maximum interval of 12 years from the date of installation.

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

Kim R. Nessel
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Public Input No. 27-NFPA 10-2018 [Section No. 8.3.1 [Excluding any Sub-Sections]]

At intervals not exceeding those specified in Table 8.3.1, fire extinguishers shall be hydrostatically retested or be replace with new .

Table 8.3.1 Hydrostatic Test Intervals for Extinguishers

Extinguisher Type	Test Interval (years)
Stored-pressure water, water mist, loaded stream, and/or antifreeze	5
Wetting agent	5
AFFF (aqueous film-forming foam)	5
FFFP (film-forming fluoroprotein foam)	5
Dry chemical with stainless steel shells	5
Carbon dioxide	5
Wet chemical	5
Dry chemical, stored-pressure, with mild steel shells, brazed brass shells, or aluminum shells	12
Dry chemical, cartridge- or cylinder-operated, with mild steel shells	12
Halogenated agents	12
Dry powder, stored-pressure, cartridge- or cylinder-operated, with mild steel shells	12

Additional Proposed Changes

File Name	Description	Approved
2929-obsolete.pdf	FEMA Document	

Statement of Problem and Substantiation for Public Input

Some major business, as well as AHJs, have a policy that after 12 years or 5 years, they will be replace with new. Would provide an option to do that in NFPA 10
From FEMA: REMOVAL FROM SERVICE OF OBSOLETE FIRE EXTINGUISHERS
ANTIQUATED EXTINGUISHERS
In today's tight labor market with costs for energy, insurance, vehicles and real estate soaring, it is a mistake to assume that labor-intensive service work on antiquated extinguishers is always profitable. Without using some form of Activity Based Costing, it is difficult to determine exact costs of service. A 24-year-old extinguisher that is due for its second hydrostatic test (and which should have had two 6-year service maintenance recharges) must be removed from its location and an extinguisher of equal or greater rating put in its place. It will be carried to a service company truck, tagged for tracking and transported to the shop. At the shop it will be unloaded, discharged, labeled for disassembly, hydrostatically tested, dried, recharged and then transported back to the end-user where it is placed back in service and the loaner is picked up. Many end-users have a policy regarding replacement costs. If the cost of repairs/service work exceed a certain percentage (often 50%) of the cost to replace the equipment, they would rather replace it and take advantage of a new warranty. However if service is done and assuming that it doesn't leak, how much time has been spent in total on this extinguisher? And at the end of all of that time, the end-user has a 24-year-old extinguisher. If a service company uses parts or agent not approved, what happens if it leaks? What happens if it fails to discharge properly? What happens if someone is injured?.

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FEMA | the life safety group

Saving Lives, Protecting Property

REMOVAL FROM SERVICE OF OBSOLETE FIRE EXTINGUISHERS

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

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

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

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

FIRE EQUIPMENT MANUFACTURERS' ASSOCIATION *Executive Director:* **THOMAS ASSOCIATES, INC.**

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

CODES & STANDARDS

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

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

The 1998 edition of NFPA 10 tells us that extinguishers "… shall be listed and labeled …" (1-4.3), "No fire extinguisher shall be converted from one type to another, nor shall any fire extinguisher be converted to use a different type of extinguishing agent …" (4-5.1.4), and that maintenance must be done using "… the proper types of tools, recharge materials, lubricants and manufacturer's recommended replacement parts or parts specifically listed for use in the fire extinguisher" (4-1.1). NFPA 10 further informs us that "…Only those agents specified on the nameplate or agents proven to have equal chemical composition, physical characteristics and fire extinguishing capabilities shall be used. Agents listed specifically for use with that extinguisher shall be considered to meet these requirements" (4-5.3.1).

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

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

In recent correspondence, which is attached, UL has clarified for us that an extinguisher would not be considered listed unless that extinguisher was serviced according to the manufacturer's manuals. Parts used for service must be those shown on the nameplate and in the manufacturer's manuals. Extinguisher agents must be that shown on the nameplate or be an agent that is specifically UL Classified for use in the specific manufacturer model extinguisher being recharged. When proper parts or agent are not used or are not available, the listing cannot be maintained.

LIABILITY

Liability for servicing these extinguishers, particularly those manufactured by companies that have long been out of business, rests solely with the extinguisher service company and its components supplier. No one else is around to answer questions either in or out of court. Only the insurance policies of the fire extinguisher service company and the end-user are

available to back up any problems during an incident. Given the age and antiquated design of the extinguisher, an argument could be made that problems are more likely to arise with older, outdated equipment than with newer equipment that meets current design standards. Warranties, even if the manufacturer of the equipment is still in business, have long since expired. An older extinguisher could have been made by a quality conscious manufacturer that is still in business but that same manufacturer recommended that the units be removed from service and has not made parts available.

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

ANTIQUATED EXTINGUISHERS

In today's tight labor market with costs for energy, insurance, vehicles and real estate soaring, it is a mistake to assume that labor-intensive service work on antiquated extinguishers is always profitable. Without using some form of Activity Based Costing, it is difficult to determine exact costs of service. A 24-year-old extinguisher that is due for its second hydrostatic test (and which should have had two 6-year service maintenance recharges) must be removed from its location and an extinguisher of equal or greater rating put in its place. It will be carried to a service company truck, tagged for tracking and transported to the shop. At the shop it will be unloaded, discharged, labeled for disassembly, hydrostatically tested, dried, recharged and then transported back to the end-user where it is placed back in service and the loaner is picked up. Many end-users have a policy regarding replacement costs. If the cost of repairs/service work exceed a certain percentage (often 50%) of the cost to replace the equipment, they would rather replace it and take advantage of a new warranty. However if service is done and assuming that it doesn't leak, how much time has been spent in total on this extinguisher? And at the end of all of that time, the end-user has a 24-year-old extinguisher. If a service company uses parts or agent not approved, what happens if it leaks? What happens if it fails to discharge properly? What happens if someone is injured?

CONCLUSIONS

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

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

Prepared by the members of FEMA's Portable Division

Visit our website on Balanced Fire Protection at – www.femalifesafety.org

Public Input No. 151-NFPA 10-2019 [New Section after 8.3.2.2.1]

Insert after 8.3.2.2.1

8.3.2.2.2 DOT specification 39 non-reusable (non-refillable) cylinders complying with 49 CFR 178.65 shall be exempt from periodic hydrostatic retest.

Statement of Problem and Substantiation for Public Input

Rusoh Incorporated would respectfully request the National Fire Protection Association to revise the current NFPA 10 standards to include the introduction of an Underwriters Laboratories Inc. Listed, self-service portable fire extinguisher in order to address the new technology this product represents. As recognized in NFPA 10, 1.2.2. These UL Listed extinguishers are currently being sold and are in use throughout the United States.

This product's new technology utilizes a non-metallic material for construction which is not currently recognized in NFPA 10 standards. The non-metallic container is not pressurized while stored, will not rust or corrode, and does not require a painted surface. Additionally, the process by which this extinguisher is reloaded is not addressed in the latest revision of NFPA 10 and requires no specialized knowledge for high pressure equipment, tools, adapters, or lubricants to reload the extinguisher.

This new technology has greatly simplified the service and maintenance requirements, as outlined in the current NFPA 10. This new technology also allows a person performing the inspections to maintain the dry-chemical agent in a fluid-like state without exposing the agent to atmospheric conditions. Also, these inspections can be conducted at intervals more frequent than what current standards call for.

This new technology also incorporates a manually operated mechanical device that is used to agitate the dry chemical agent and that device also provides a verifiable indication of the fluid-like or compacted state of the dry chemical agent within the extinguisher. This feature dramatically decreases agent compaction, especially in areas where vibration or movement accelerate compaction. Maintaining the dry-chemical agent into a fluid-like state is more importantly achieved without exposing the dry-chemical agent to atmospheric conditions. This new technology dramatically decreases environmental and agent cross contamination potentials.

It should also be noted that this manually operate mechanical device is also a verifiable indicator of the fluid-like state of the dry-chemical agent within the extinguisher for an AHJ if they choose to utilize it.

The features of this extinguisher also reduce service and maintenance issues where there is potential for cross contamination of agent, human error, equipment accuracy such as scales, or where "universal parts" are installed in portable fire extinguishers.

Due to the new technology, operating features, and non-metallic material used in the construction of this self-service portable dry-chemical fire extinguisher, there are maintenance and service practices in the current edition of NFPA 10 that would not apply. This self-service dry-chemical portable fire extinguisher is a non-stored pressure extinguisher. The materials used in construction, along with the mechanical feature to agitate or fluidize the dry-chemical agent, and the reloading process are features that speak directly to new technology or alternative arrangements not currently recognized by NFPA 10.

Therefore we make the request to revise the current NFPA 10 standards.

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Public Input No. 25-NFPA 10-2018 [Section No. 8.4.1 [Excluding any Sub-Sections]]

If, at any time, a fire extinguisher shows evidence of dents, mechanical injury, or corrosion to the extent as to indicate weakness, it shall be condemned ~~or hydrostatically retested~~ subject to the provisions of 8.4.2 and Section 8.8.

Additional Proposed Changes

File Name	Description	Approved
14-if-a-cylinder-fails-the-visual-inspection-requirements-but-passes-the-hydrotest-it-s-ok.pdf	If a cylinder fails the visual inspection requirements, but passes the hydrotest, it's OK.	

Statement of Problem and Substantiation for Public Input

"or hydrostatically retested" contradicts sections 8.4.2 and 8.8
Quote from Amerex document:
"While this doesn't seem logical this topic is vital because DOT has been levying fines for visual inspections not being performed. How can this be if the unit passes an actual hydrostatic test? It's important to remember that because the unit made it to your shop for testing that someone was paying attention to the extinguisher date. But did they do a thorough external visual exam before it arrived in your shop? Also it's important to remember that the cylinder requalification work that you perform has your name on it and that this cylinder may be in service for another five (5), seven (7), or twelve (12) years.
Cylinder requalification begins with a visual inspection. If this is performed correctly, according to Compressed Gas Association (CGA) pamphlet C-6, Standards for Visual Inspection of Compressed Gas Cylinders, you might not even have to perform a hydrostatic test! How can this be you wonder? Visual cylinder requalification proceeds hydrostatic testing, it doesn't replace it. If the visual inspection reveals cylinder features that are severe enough then the cylinder should be condemned and thus a hydrostatic test need not be performed.
OK, how can you tell when cylinder damage is severe enough to remove the cylinder from service without a hydrostatic test? According to CGA pamphlet C-6, , cylinders can be visually condemned for any of the following reasons:
Dents Cuts, Gouges or Digs
Isolated Pitting General Corrosion
Fire Damage Arc and Torch Burns
Line Corrosion Corrosion or Pitting
Neck Defects Crevice Pitting
Bulges Attachments
It is especially important to remember that by applying your stamp and labels you have accepted total responsibility for the safety of the cylinder. Don't forget that most warranties have expired by hydrostatic test time, leaving you with the entire liability burden.
CGA Pamphlet C-6 is only eleven (11) pages long and is very easy reading. While some of the measurement criteria are tough, the points you must understand are easily grasped by simply reading the document. You will probably welcome the opportunity to use this pamphlet as a tool to condemn your customers' cylinders. While you are still very likely to run into resistance, this pamphlet is your ultimate guide and must be followed.
Additionally – NFPA 10 has even more stringent requirements fort the visual examination. See Chapter 8 paragraph 8.4.2*. There are nine items listed – the presence of any one of those items is cause for the cylinder to fail the exam and be condemned.
You will still have many difficult occasions when your clients don't care what the rules are. All they want is their cylinder tested and returned to service! Being a professional in the business of service, maintenance, and testing of fire extinguishers is not tough as long as you remember that even more important than a piece of property is the life of the operator of the fire extinguisher you tested and approved!"

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Committee: PFE-AAA

Common Myth #14

Posted on March 1, 2013 by Amerex

If a cylinder fails the visual inspection requirements, but passes the hydrotest, it's OK.

Description

Absolutely not! It is possible for a cylinder to pass hydrostatic testing in spite of having disqualifying features, features that have occurred during in-service field use, e.g., cuts.

While this doesn't seem logical this topic is vital because DOT has been levying fines for visual inspections not being performed. How can this be if the unit passes an actual hydrostatic test? It's important to remember that because the unit made it to your shop for testing that someone was paying attention to the extinguisher date. But did they do a thorough external visual exam before it arrived in your shop? Also it's important to remember that the cylinder requalification work that you perform has your name on it and that this cylinder may be in service for another five (5), seven (7), or twelve (12) years.

Cylinder requalification begins with a visual inspection. If this is performed correctly, according to Compressed Gas Association (CGA) pamphlet C-6, Standards for Visual Inspection of Compressed Gas Cylinders, you might not even have to perform a hydrostatic test! How can this be you wonder? Visual cylinder requalification proceeds hydrostatic testing, it doesn't replace it. If the visual inspection reveals cylinder features that are severe enough then the cylinder should be condemned and thus a hydrostatic test need not be performed.

OK, how can you tell when cylinder damage is severe enough to remove the cylinder from service without a hydrostatic test? According to CGA pamphlet C-6, , cylinders can be visually condemned for any of the following reasons:

Dents Cuts, Gouges or Digs

Isolated Pitting General Corrosion

Fire Damage Arc and Torch Burns

Line Corrosion Corrosion or Pitting

Neck Defects Crevice Pitting

Bulges Attachments

It is especially important to remember that by applying your stamp and labels you have accepted total responsibility for the safety of the cylinder. Don't forget that most warranties have expired by hydrostatic test time, leaving you with the entire liability burden.

CGA Pamphlet C-6 is only eleven (11) pages long and is very easy reading. While some of the measurement criteria are tough, the points you must understand are easily grasped by simply reading the document. You will probably welcome the opportunity to use this pamphlet as a tool to condemn your customers' cylinders. While you are still very likely to run into resistance, this pamphlet is your ultimate guide and must be followed.

Additionally – NFPA 10 has even more stringent requirements fort the visual examination. See Chapter 8 paragraph 8.4.2*. There are nine items listed – the presence of any one of those items is cause for the cylinder to fail the exam and be condemned.

You will still have many difficult occasions when your clients don't care what the rules are. All they want is their cylinder tested and returned to service! Being a professional in the business of service, maintenance, and testing of fire extinguishers is not tough as long as you remember that even more important than a piece of property is the life of the operator of the fire extinguisher you tested and approved!

Public Input No. 102-NFPA 10-2019 [Section No. 8.4.1.2]

8.4.1.2

Nonrechargeable fire extinguishers other than ~~halogenated~~ halon agent types that show evidence of dents, mechanical injury, or corrosion to the extent of indicating weakness shall not be required to comply with 8.4.1 but shall be discharged and discarded~~ where the fire extinguisher shows evidence of dents, mechanical injury, or corrosion to the extent of indicating weakness~~ .

Statement of Problem and Substantiation for Public Input

Paragraphs 8.4.1.2 and 8.4.1.3 should be correlated. Since 8.4.1.3 provides a requirement for nonrechargeable halon type extinguishers, 8.4.1.2 should address the remainder of nonrechargeable extinguishers.

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Public Input No. 103-NFPA 10-2019 [Section No. 8.4.2]

8.4.2* Examination of Cylinder Condition.

Where a fire extinguisher cylinder or shell exhibits one or more of the following conditions, it shall not be hydrostatically tested but shall be condemned or destroyed by the owner or at the owner's direction:

(1) * Where repairs by soldering, welding, brazing, or use of patching compounds exist

(2) Where the cylinder threads are worn, corroded, broken, cracked, or nicked

(3) Where corrosion has caused pitting, including pitting under a removable nameplate or nameband assembly

(4) Where the fire extinguisher has been exposed to excessive heat, flame, or fire

(5) Where a calcium chloride–type extinguishing agent has been used in a stainless steel fire extinguisher

(6) Where the shell is of copper or brass construction joined by soft solder or rivets

(7) Where the depth of a dent exceeds 1/10 of the greatest dimension of the dent if not in a weld or exceeds 1/4 in. (6 mm) if the dent includes a weld

(8) Where any local or general corrosion, cuts, gouges, or dings have removed more than 10 percent of the minimum cylinder wall thickness

(9) Where a fire extinguisher has been used for any purpose other than that of a fire extinguisher

(10) Where the finish on a non-specification cylinder has been removed by abrasive means

Statement of Problem and Substantiation for Public Input

This addition addresses a practice of stripping paint from fire extinguisher cylinders. While there are provisions for DOT specification cylinders, there are no provisions for extinguisher cylinders meeting 49 CFR 173.309 (a) (otherwise known as non-specification cylinders). The UL listing is only valid with the original manufacturer's factory finish. Additionally, if a cylinder must be sanded, ground or shot blasted to remove rust and accommodate the repainting process, the cylinder must be conditioned to near white metal for proper paint adhesion. Sanding, grinding, and shot blasting reduce metal thickness. Reduction of metal thickness warrants condemnation in accordance with this section of the standard.

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Public Input No. 104-NFPA 10-2019 [Section No. 8.5.2.5]

8.5.2.5

Any distortion of the cylinder shall be cause for ~~rejection~~ condemnation .

Statement of Problem and Substantiation for Public Input

NFPA 10 uses the term “condemn” to disposition cylinders that do not meet hydrostatic test or visual inspection. This change is consistent with the rest of the standard.

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Public Input No. 170-NFPA 10-2019 [Section No. 8.6.2.2]

8.6.2.2

~~Carbon dioxide fire extinguishers having cylinder specification ICC3 shall be tested at 3000 psi (20.68 MPa).~~ Delete paragraph 8.6.2.2 reference

Statement of Problem and Substantiation for Public Input

Substantiation
The ICC cylinder designation was eliminated and changed to DOT over 50 years ago. This reference is not only extremely dated, but also unnecessary as the testing of ICC marked cylinders is already addressed within DOT regulations table 180.209. Not aware of any existing CO2 fire extinguisher models utilizing ICC markings that still exist or are still able to be serviced and hydrostatically tested per NFPA-10. Reference paragraphs 4.4, 4.4.2. and 8.1.2.

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Public Input No. 2-NFPA 10-2018 [New Section after A.6.1.3.7]

A.6.1.3.9.3

An example of an inventory control label could be a label or sticker with a number, symbol or barcode that correlates with a specific extinguisher's details and location.

Statement of Problem and Substantiation for Public Input

There is still disagreement on what "inventory control labels" refer to and, as a result, some labels that are clearly used for inventory purposes and placed on the front of the extinguisher are seen as being non-compliant with sub-section 6.1.3.9.3. This note serves as good guidance on what inventory control labels could include.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 1-NFPA 10-2018 [Section No. 6.1.3.9.3]	

Submitter Information Verification

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Public Input No. 7-NFPA 10-2018 [Section No. A.6.6.1]

A.6.6.1

Examples of hazards where Class K extinguishers are needed include, but are not limited to, fryers, griddles, and stove tops._ It is not intended that Class K fire extinguishers be required where residential cooking equipment is used for food warming or limited cooking, or where an occupancy prohibits deep fat frying.

Statement of Problem and Substantiation for Public Input

This is an option to providing an exemption into the body of the code.

The problem with the text is the word potential. Anywhere there is a cooking device, there is potential to cook with combustible cooking media. This added text to the annex attempts to better define the intent and exempt some cooking locations.

Class K extinguishers, like wet chemical (UL 300) fixed systems, are listed for a particular quantity and surface area of vegetable oil and the proposed text identifies particular operations where this is not likely to occur.

In addition, Annex F suggests that other types of extinguishers would be acceptable for non-commercial cooking applications.

The verbiage “where residential cooking equipment is used for food warming or limited cooking” used in 6.6.1.1 is taken from NFPA 101 Chapter 18/19.3.2.5.2.

Submitter Information Verification

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Submittal Date: Wed May 09 14:40:39 EDT 2018
Committee:

Public Input No. 22-NFPA 10-2018 [Sections A.3.4.2, A.3.4.4]

Sections A.3.4.2, A.3.4.4

A.3.4.2 3 Nonrechargeable (Nonrefillable) Fire Extinguisher.

Nonrechargeable (nonrefillable) fire extinguishers are marked “Discharge and Dispose of After Any Use,” “Discharge and Return to the Manufacturer After Any Use,” or with a similar marking. Some fire extinguishers that are physically rechargeable are marked “nonrechargeable” and are therefore considered by this standard to be nonrechargeable (nonrefillable) fire extinguishers.

A.3.4.4 5 Rechargeable (Refillable) Fire Extinguisher.

The fire extinguisher is capable of being recharged with agent and restored to its full operating capability by the standard practices used by fire equipment dealers and distributors. Rechargeable (refillable) fire extinguishers are marked “Recharge Immediately After Any Use” or with a similar marking.

Statement of Problem and Substantiation for Public Input

Renumbering the sections

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 21-NFPA 10-2018 [Section No. 3.4]	

Submitter Information Verification

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Submittal Date: Sun Sep 23 20:07:19 EDT 2018
Committee: PFE-AAA

Public Input No. 153-NFPA 10-2019 [Section No. A.4.4.2]

A.4.4.2

Fire extinguishers manufactured by companies that are no longer in business can remain in use if they meet the requirements of this standard and are maintained in accordance with the manufacturer's service manual. When these extinguishers require recharging or maintenance and the required extinguishing agent or necessary repair parts are not available, the extinguishers should be removed from service.

A.5.1

When selecting Fire Extinguishers and using Tables in this standard the following should be considered. For figuring areas and/or distances listed in the tables, use the Table most directly associated with the predominant Fire hazard anticipated in the area served (e.g.- a Hospital Patient wing served by 2A10BC extinguishers should calculate number and spacing per the A class table. While a B hazard is present, the A hazard is predominant).

Statement of Problem and Substantiation for Public Input

When multiple use extinguishers are used, some are applying the 50ft travel under the 'B' table when using a 2A10BC. It's not clear that only one table will apply, even when using/selecting a multiple hazard extinguisher. Just looking for some clarity here.

Submitter Information Verification

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Zip:
Submittal Date: Tue Jun 25 11:12:03 EDT 2019
Committee: PFE-AAA

Public Input No. 71-NFPA 10-2019 [Section No. A.5.3.2.4]

A.5.3.2.4

The following information pertains to Class D hazards:

(1) Chemical reaction between burning metals and many extinguishing agents (including water) can range from explosive to inconsequential, depending in part on the type, form, and quantity of metal involved. In general, the hazards from a metal fire are significantly increased when such extinguishing agents are applied. The advantages and limitations of a wide variety of commercially available metal fire extinguishing agents are discussed in NFPA 484 and in Section 6, Chapter 9, of the NFPA *Fire Protection Handbook*. The MSDS of the Class D hazard being protected or the extinguisher manufacturer should be consulted.

(2) The agents and fire extinguishers discussed in this section are of specialized types, and their use often involves special techniques peculiar to a particular combustible metal. A given agent will not necessarily control or extinguish all metal fires. Some agents are valuable in working with several metals; others are useful in combating only one type of metal fire. The authorities having jurisdiction should be consulted in each case to determine the desired protection for the particular hazard involved.

(3) Certain combustible metals require special extinguishing agents or techniques. See NFPA 484 for additional information. If there is doubt, NFPA 484 or the NFPA *Fire Protection Guide to Hazardous Materials* should be consulted. (NFPA 49 and NFPA 325 have been officially withdrawn from the *National Fire Codes*, but the information is contained in the NFPA *Fire Protection Guide to Hazardous Materials*.)

(4) Reference should be made to the manufacturer's recommendations for use and special techniques for extinguishing fires in various combustible metals.

(5) Fire of high intensity can occur in certain metals. Ignition is generally the result of frictional heating, exposure to moisture, or exposure from a fire in other combustible materials. The greatest hazard exists when these metals are in the molten state or in finely divided forms of dust, turnings, or shavings.

The properties of a wide variety of combustible metals and the agents available for extinguishing fires in these metals are discussed in NFPA 484, the NFPA *Fire Protection Handbook* *and the* ~~NFPA~~ *SFPE Handbook of Fire Protection* ~~*Handbook*~~ *Engineering* .

Statement of Problem and Substantiation for Public Input

The SFPE Handbook of Fire Protection Engineering also has additional information related to suppression agents for Class D fires. Specifically, information related to the hazards for fine dusts. See Chapter 70, Fine Dusts.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 73-NFPA 10-2019 [New Section after K.1.1]	

Submitter Information Verification

Submitter Full Name: Chris Jelenewicz
Organization: SFPE
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Submittal Date: Fri Jun 14 14:37:33 EDT 2019
Committee: PFE-AAA

Public Input No. 56-NFPA 10-2019 [Section No. A.5.3.2.6.1]

A.5.3.2.6.1

ANSI/UL 2129, CAN/ULC-S566, *Standard for Halocarbon Clean Agent Fire Extinguishers*; and CAN/ULC-S512, *Standard for Halogenated Agent Hand and Wheeled Fire Extinguishers*, require halocarbon and halogenated agent nameplates to provide safety guidelines for avoiding overexposure to agent vapors when the agents are discharged into confined spaces. The UL minimum volume requirement for confined spaces is based on exposure to the agent in the absence of a fire and does not include considerations of fire or agent decomposition products.CAN/ULC-S512, Standard for Halogenated Agent Hand and Wheeled Fire Extinguishers has been withdrawn from the standards directory and although new listings to this standard are not anticipated, extinguishers listed prior to the Montreal Protocol are still listed.

Statement of Problem and Substantiation for Public Input

The standard has been withdrawn but is viable as a reference standard for those products currently listed and in service. The annex note explains this issue.

Submitter Information Verification

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Submittal Date: Fri Jun 07 12:11:16 EDT 2019
Committee: PFE-AAA

Public Input No. 115-NFPA 10-2019 [Section No. A.5.5.6]

A.5.5.6

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.

Extinguishers provided for the protection of delicate electronic equipment are typically halogenated agent and water mist extinguishers with Class A ratings.

Statement of Problem and Substantiation for Public Input

Added text for recommended types of extinguishers that are typically provided for the protection of delicate electronic equipment.

Submitter Information Verification

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Affiliation: FEMA
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City:
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Submittal Date: Thu Jun 20 13:53:21 EDT 2019
Committee: PFE-AAA

Public Input No. 166-NFPA 10-2019 [Section No. A.5.5.6.1]

A.5.5.6.1

Dry chemical residue will probably not be able to be completely and immediately removed, and, in addition, multipurpose dry chemical exposed to temperatures in excess of 250°F (121°C) or relative humidity in excess of 50 percent can cause corrosion. The use of other clean agent types of extinguishing agents can help to minimize or eliminate collateral equipment damage and associated clean up concerns.

Statement of Problem and Substantiation for Public Input

Substantiation
The added sentence onto this ANNEX paragraph helps to further explain why the selection and use of a clean agent extinguisher may be an advisable consideration.

Submitter Information Verification

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City:
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Submittal Date: Tue Jun 25 13:12:58 EDT 2019
Committee: PFE-AAA

Public Input No. 173-NFPA 10-2019 [Section No. F.5.1]

F.5.1 Combustible Cooking Media Fires.

Combustible cooking media fires require the use of extinguishers that will extinguish the fire from a safe distance without causing splashing of the burning grease or permitting reignition of the fire. This can be achieved by a special purpose residential fire extinguisher listed for residential grease fires or an automatic fire extinguisher unit listed for residential range top protection. An ABC dry chemical extinguisher is not the extinguisher of choice because of the possibility of reignition. Other agents can have limited effectiveness. Water, AFFF, and FFFP can cause dangerous splashing of burning grease and can cause fire to spread.

WARNING: Do not attempt to pick up a pot or pan containing burning grease! To avoid personal injury and to avoid spreading the fire, fight the fire in place. Shut off the heat source as soon as it is safe to do so, to avoid fire reflash.

F.5.1.1 Special purpose residential fire extinguishers for residential grease fires are listed to the following:

(1) UL 299D, *Dry Chemical Fire Extinguishers For Residential Cooking Equipment* ; and

(2) UL 711A, *Fire Test Method for Portable Hand-Held Extinguishers Intended for Use On Residential Cooking Equipment*

F.5.1.2 Automatic fire extinguisher units for residential range top protection are listed to the following:

(1) UL 1254, *Pre-Engineered Dry and Wet Chemical Extinguishing System Units* ; and

(2) UL 300A, *Extinguishing System Units For Residential Range Top Cooking Surfaces*

Statement of Problem and Substantiation for Public Input

Specific hazard application products as referenced are listed in accordance with these certification documents.

Submitter Information Verification

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Submittal Date: Wed Jun 26 13:16:03 EDT 2019
Committee: PFE-AAA

Public Input No. 73-NFPA 10-2019 [New Section after K.1.1]

K.2.1

SFPE Publications

Society of Fire Protection Engineers. 9711 WASHINGTONIAN BLVD. SUITE 380 GAITHERSBURG, MD 20878

SFPE Handbook of Fire Protection Engineering, 5th edition. Gaithersburg, Maryland. 2016

Statement of Problem and Substantiation for Public Input

Addition of SFPE Handbook in list of references is need if statement in Public Input 71 is accepted.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 71-NFPA 10-2019 [Section No. A.5.3.2.4]	Reference needed

Submitter Information Verification

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Submittal Date: Fri Jun 14 14:48:16 EDT 2019
Committee: PFE-AAA

Public Input No. 57-NFPA 10-2019 [Section No. K.1.2.4]

K.1.2.4 ULC Publications.

~~Underwriters' Laboratories of Canada, 7 Underwriters Road, Toronto, ON M1R 3A9,~~ ULC Standards, 171 Nepean Street, Suite 400, Ottawa, Ontario K2P 0B4 Canada .

CAN/ULC-S512, *Standard for Halogenated Agent Hand and Wheeled Fire Extinguishers*, 2005, reaffirmed 2007.

Statement of Problem and Substantiation for Public Input

Update of ULC publications address..

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 55-NFPA 10-2019 [Section No. 2.3.6]	
Public Input No. 54-NFPA 10-2019 [Section No. 2.3.5]	
Public Input No. 58-NFPA 10-2019 [Section No. K.1.2.5]	

Submitter Information Verification

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Submittal Date: Fri Jun 07 12:13:05 EDT 2019
Committee: PFE-AAA

Public Input No. 58-NFPA 10-2019 [Section No. K.1.2.5]

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, ON M1R 3A9, Canada.~~ ULC Standards, 171 Nepean Street, Suite 400, Ottawa, Ontario K2P 0B4 Canada

ANSI/UL 299, CAN/ULC-S504, *Standard for Dry Chemical Fire Extinguishers*, ~~2012.~~ 2018

ANSI/UL 711, CAN/ULC-S508, *Standard for Rating and Fire Testing of Fire Extinguishers*, ~~2013~~ 2018 .

ANSI/UL 2129, CAN/ULC-S566, *Standard for Halocarbon Clean Agent Fire Extinguishers*, ~~2014.~~ 2017.

UL 299D, *Dry Chemical Fire Extinguishers For Residential Cooking Equipment* , 2010

UL 711A, *Fire Test Method for Portable Hand-Held Extinguishers Intended for Use On Residential CookingEquipment* , 2018

UL 1254, *Pre-Engineered Dry and Wet Chemical Extinguishing System Units* , 2019

UL 300A, *Extinguishing System Units For Residential Range Top Cooking Surfaces* , 2006

-

Statement of Problem and Substantiation for Public Input

Update the publishing dates for each of the UL standards listed to reflect the most up to date edition and an update of ULC publications address .Specific hazard application products as referenced are listed in accordance with these certification documents.

Related Public Inputs for This Document

Related Input	Relationship
Public Input No. 54-NFPA 10-2019 [Section No. 2.3.5]	
Public Input No. 55-NFPA 10-2019 [Section No. 2.3.6]	
Public Input No. 57-NFPA 10-2019 [Section No. K.1.2.4]	

Submitter Information Verification

Submitter Full Name: Kelly Nicolello
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Submittal Date: Fri Jun 07 12:15:51 EDT 2019
Committee: PFE-AAA

NFPA 10-2018 Edition
Standard for Portable Fire Extinguishers
TIA Log No.: 1423
Reference: 6.1.5, 7.2.2 and 7.6.2.1(new)
Comment Closing Date: July 9, 2019
Submitter: James Rose, En-Gauge, Inc.
www.nfpa.org/10

1. Revise 6.1.5 to read as follows:

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.

2. Revise 7.2.2 to read as follows:

7.2.2 Inspection Procedures. Periodic inspection or electronic monitoring of fire extinguishers shall include a check of at least the following items:
(1) Location in designated place
(2) Visibility of the extinguisher or means of indicating the extinguisher location
(3) No obstruction to access ~~Access to the extinguisher~~
(4) Pressure gauge reading or indicator in the operable range or position
(5) Fullness determined by weighing or hefting for self-expelling-type extinguishers, cartridge-operated extinguishers, and pump tanks
(6) Condition of tires, wheels, carriage, hose, and nozzle for wheeled extinguishers
(7) Indicator for nonrechargeable extinguishers using push-to-test pressure indicators

3. Add a new paragraph 7.6.2.1 to read as follows:

7.6.2.1 When used in conjunction with non-fire alarm systems, fire extinguisher electronic monitoring devices shall be inspected and maintained as required by 7.6.1.

Substantiation:
Current Wording:

- **Section 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.

Current Substantiation for Proposed Changes:

- **Section 6.1.5** was moved from the Inspection Section of the Standard to the Installation section of the Standard in 2013 with the additional wording "and Alarm System" added to the heading. The sentence after the heading on **Section 6.1.5** was added in 2018 to ensure that only electronic extinguisher monitoring that is connected to an alarm system has to meet the requirements of **Section 6.1.5.1 and 6.1.5.2.**
- By adding the "and Alarm System" wording (and backed up by the substantiation) the committee is allowing the stand alone "theft deterrent" technology that was combined with electronic monitoring in several other sections of the Standard to not have to be supervised for integrity and power.
- Any safety device, regardless if it is an "add-on", a stand-alone device or a supplemental device must have the means of supervision of device integrity and power source.
- Any Listed device would have to meet integrity and power supervision requirements.

Current Wording:
Section 7.2.2, Inspection Procedures.

- Subsection (3) Access to the extinguisher.

Current Substantiation for Proposed Changes:

- The original Subsection (2) read: No Obstruction to access or visibility.
- The wording "Fire extinguishers shall not be obstructed or obscured from view" has been removed from the Standard. The reference to "obstruction" within NFPA 10 dates back 40 years and is universal in other Standards for pull stations, electrical panels, and other critical devices. See Section 6.1.3.3.1.
- A portion of the Electronic Monitoring device's design and functionality (obstruction detection) was based on the "shall not be obstructed" line in the code.
- The obstruction detection function was suggested by NFPA and other code body officials as a "needed" function during early concept discussions with NFPA.
- Other sections of the Standard reference Electronic Fire Extinguisher Monitoring obstruction detection.
- The new wording can now be interpreted to mean that it is acceptable for an extinguisher to be obstructed (during installation and subsequently during monthly inspections) as long as it has a sign indicating its location.

Current Wording:

- **Section 7.2.2 Inspection Procedures.**
  - (4) Fullness determined by weighing or hefting.

Current Substantiation for Proposed Changes:

- Some "hefting" history: 1978 NFPA 10 – For water types without gauges, their fullness shall be determined by "hefting".
- "Hefting" was originally an inspection requirement for fire extinguishers without gauges.
- "Hefting" self-expelling type extinguishers and cartridge operated extinguishers is required because these devices do not have pressure gauges.
- "Hefting" is not required on dry chemical extinguishing systems and/or wheeled units, which use the exact extinguishing agent as hand portable dry chemical fire extinguishers that are required to be "hefted".
- As the committee's original substantiation explains, "Hefting" is only performed to indicate if an extinguisher has been emptied.
- "Hefting" will only determine if the extinguishing agent has been completely expelled and won't indicate if the pressurized expellant has leaked out.
- There is no scientific way to quantify the "hefting" procedure.
- Lastly and most importantly, **electronically monitoring will always provide a signal to the monitoring system when an extinguisher is emptied.**

Current Wording:

- **Section 7.6.1 Electronic Monitoring (Chapter 7 Inspection, Maintenance, and Recharging)**

Current Substantiation for Proposed Changes:

- When the current **Section 6.1.5** was created, a critical section was dropped that is an essential reference for electronic extinguisher monitoring.

- The old **Section 7.1.5.2** was eliminated from the Standard. **Section 7.1.5.2** read, "When used in conjunction with non-fire alarm systems, fire extinguisher electronic monitoring devices shall be inspected and maintained as required in **7.1.5.1** through **7.1.5.2.3** and the manufacturer's listed installation and maintenance manual (s).
- Nearly half of the electronic extinguisher monitoring systems installed are reporting back to non-fire alarm systems. By removing any reference to non-fire alarm systems in the Standard, all code recognition of stand-alone systems or monitoring by non-fire alarm systems is removed.
- The section in question is referenced constantly by both AHJ's and end-users and is needed in the Standard.
- **There is no recorded substantiation for the removal of the original Section 7.1.5.2.**

Emergency Nature: The proposed TIA intends to correct a circumstance in which the revised NFPA Standard has resulted in an adverse impact on a product or method that was inadvertently overlooked in the total revision process or was without adequate technical (safety) justification of the action.

Per Standards Council Decision D#18-6 and the assigned Task Groups findings: ……the Council finds that the subject matter of the TIA warrants further consideration. Therefore, the Council directs NFPA staff to form a balanced task group to evaluate and report back to Council by November 1, 2018 whether a TIA related to electronic monitoring should be developed, and if so, to develop a proposed TIA.

NFPA 10-2018 Edition
Standard for Portable Fire Extinguishers
TIA Log No.: 1378
Reference: Various
Comment Closing Date: July 19, 2018
Submitter: John McSheffrey, en-Gauge, Inc.
www.nfpa.org/10

1. Revise 3.3.10 to read as follows:

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~~ A method of electronic communication (data transmission) between an in-place fire extinguisher and an electronic monitoring device/system.

2. Revise 6.1.3.3.1 and 6.1.3.3.2 to read as follows:

6.1.3.3.1 Fire extinguishers shall ~~be installed in locations where they are visible except as permitted by 6.1.3.3.2~~ not be obstructed or obscured from view.

6.1.3.3.2* In large rooms and in certain locations where visual obstructions cannot be avoided, ~~signs or other~~ means shall be provided to indicate the extinguisher location.

3. Revise 6.1.5 to read as follows:

~~6~~7.1.5 Electronic Monitoring and Alarm Systems. ~~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.~~

7.1.5.1 When used in conjunction with fire alarm systems, fire extinguisher electronic monitoring devices shall be inspected and maintained in accordance with *NFPA 72, National Fire Alarm and Signaling Code*, and 7.6.1.

7.1.5.2 When used in conjunction with non-fire-alarm systems, fire extinguisher electronic monitoring devices shall be inspected and maintained as required in 7.1.5.2.1 through 7.1.5.2.3 and the manufacturer's listed installation and maintenance manual(s).

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

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

7.1.5.2.3 The monitoring device shall be tested and maintained annually in accordance with 7.6.1.

4. Revise 7.2.2 to read as follows:

7.2.2 ~~Inspection~~ Procedures. Periodic inspection or electronic monitoring of fire extinguishers shall include a check of at least the following items:

(1) Location in designated place

(2) ~~Visibility of the extinguisher or means of indicating the extinguisher location~~ No obstruction to access or visibility

(3) ~~Access to the extinguisher~~ Pressure gauge reading or indicator in the operable range or position

(4) ~~Pressure gauge reading or indicator in the operable range or position~~ Fullness determined by weighing or hefting for the self-expelling-type extinguishers, cartridge-operated extinguishers, and pump tanks
(5) ~~Fullness determined by weighing or hefting~~ Condition of tires, wheels, carriage, hose, and nozzle for wheeled extinguishers
(6) ~~Condition of tires, wheels, carriage, hose, and nozzle for wheeled extinguishers~~ Indicator for nonrechargeable extinguishers using push-to-test pressure indicators
~~(7) Indicator for nonrechargeable extinguishers using push-to-test pressure indicators~~

~~**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.~~

~~**7.2.2.2** Any method (s) of inspection other than manual inspection shall require the approval of the authority having jurisdiction.~~

7.2.2.3~~1~~1* In addition to 7.2.2, fire extinguishers shall be visually inspected in accordance with 7.2.2.4~~1~~2 if they are located where any of the following conditions exists:
(1) …
(2) …
(3) …
(4) …

7.2.2.4~~1~~2 Where required by 7.2.2.3~~1~~1, the following inspection procedures shall be in addition to those addressed in 7.2.2:
(1) …
(2) …
(3) …

7.2.2.5~~2~~3 Inspection Procedure for Containers of Class D Extinguishing Agent. Periodic inspection ~~of containers of Class D extinguishing agent used to protect Class D hazards~~ or electronic monitoring of fire extinguishers shall include ~~verification~~ a check of at least the following items:
(1) Located in designated place
(2) ~~Visibility of the container or means of indicating the container location~~ No obstruction to access or visibility
(3) ~~Access to the container~~ Pressure gauge reading or indicator in the operable range or position
(4) ~~Lid is sealed~~ Fullness determined by weighing or hefting for the self-expelling-type extinguishers, cartridge-operated extinguishers, and pump tanks
(5) ~~Fullness by hefting or weighing~~ Condition of tires, wheels, carriage, hose, and nozzle for wheeled extinguishers
(6) ~~No obvious physical damage to container~~ Indicator for nonrechargeable extinguishers using push-to-test pressure indicators

5. Delete 7.2.4.2.2 and renumber subsequent paragraph as follows:

~~**7.2.4.2.2** Records for electronic monitoring shall be kept to demonstrate that at least the last 12 monthly inspections have been performed.~~

7.2.4.2.3~~2~~2 …

6. Revise Annex A.3.3.10 to read as follows:

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~~It can convey information ~~regarding~~ about an in-place fire extinguisher that includes status, ~~removal,~~ pressure level, ~~weight, and~~ presence, condition, and whether there is

an obstruction to the extinguisher. ~~of objects in the vicinity of an extinguisher.~~ Electronic monitoring can ~~be considered for one or more~~ satisfy many 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.

Substantiation: The changes made to NFPA 10 regarding the technology to electronically monitor fire extinguishers have reduced fire life standards by drastically limiting the technology's recognized use. The changes are also in direct conflict the Section 1.2.2 of the NFPA 10 Standard for Portable Fire Extinguishers.

3.3.10 The change in the wording is intended for the Standard to recognize a non-listed, non-supervised anti-theft device that can monitor for location and removal and does not meet the previous requirements for monitored extinguisher technology as called out in NFPA-10 2007/2010 and correlated with NFPA 72.

We know of no other instance in ALL of the NFPA codes where a Standard is reduced to recognize a non-listed, non-supervised device that's purpose is to alert the occupants.

Accepting a lesser threshold of monitoring reduces life safety and sets a tremendously bad precedent for the code. All monitoring devices should be held to the same high standard whether the signal is local or communicated back to a panel.

6.1.3.3.1 The NFPA-10 Standard read *"Fire extinguishers shall not be obstructed or obscured from view."* This has now been totally eliminated from the Standard and replaced with the term *"Fire extinguishers shall be installed in locations where they are visible"*.

Aside from completely lessening the threshold of safety, the change means that NFPA-10 no longer uses the same terminology that is referenced within NFPA, the National Electrical Code, OSHA and other code bodies.

- *NFPA 72, 2016 17.14.8.2 Manual fire alarm boxes shall be installed so that they are conspicuous, unobstructed, and accessible.*
- *1910.303(h)(4)(i)(A) On switchboard and control panels exceeding 1.83 m (6.0 ft) in width, there shall be one entrance at each end of such boards unless the location of the switchboards and control panels permits a continuous and unobstructed way of* exit travel

Our technology was designed, and has been recognized within these codes to detect and alert when a fire extinguisher's access is obstructed. The technology was designed based on the established NFPA Code. The elimination of the term obstruction from NFPA-10 is yet another intentional tweak to diminish the effectiveness of recognized technology and makes the Standard's accessibility requirements different from the rest of the Code.

Additionally this change directly contradicts Section 1.2.2 that states *"Nothing in this standard shall be considered as a restriction on new technologies or alternative arrangements, provided that the level of protection as herein described is not lowered and is acceptable to the authority having jurisdiction."*

6.1.3.3.2 Accessibility cannot be properly addressed with signage. See explanation in 6.1.3.3.1

6.1.5 In 2013 Chapter 6, Section 6.1.5 (5.1, 5.2) was added, and as a result Chapter 7 Section 7.1.5, 7.1.5.1, 7.1.5.2 (5.2.1 – 5.2.3) was removed. This change needs to be undone.

The addition of the 6.1.5 related text lessens the requirements for monitored technology to be accountable. And the changes implemented undo the correlation of NFPA-10 to NFPA-72.

The 7.1.5 related text in the 2010 edition ensures accountability, integrity, supervision, correlation and the use of the technology with non-fire alarm systems (which includes localized signaling devices). This wording needs to be reinstated.

7.2.2 The changes to the monthly inspection requirements are perhaps the most blatant moves put forth to undermine the recognized technology. The 2007 NFPA-10 Committee worked hard to reorganize the monthly inspection criteria. It was identified that many of the monthly inspection checks asked of the occupancy owner, was also part of the annual inspection done by an outside certified FED.

An example of an unnecessary change reintroduced to the NFPA-10 Standard is the re-adoption of the outdated practice of having to physically "heft" a fire extinguisher monthly.

"Hefting" was a practice that was once required to determine if the fire extinguisher was full, and to ensure the chemical powder would not cake inside the extinguisher. However extinguishing agents were modified years ago and are now made with silicone like additives. This change in material is highlighted in Section 3.3.4.1 which states, *"Dry Chemical. A powder composed of very small particles, usually sodium bicarrbonate, potassium bicarbonate, or ammonium phosphate based with added particulate material supplemented by special treatment to provide resistance to packing, resistance to moisture absorption (caking), and the proper flow capabilities."* Furthermore, the first sentence from the Amerex web page describing dry chemical fire extinguishers; "REGULAR extinguishers contain a siliconized sodium bicarbonate based dry chemical with free flowing and non-caking additives" http://amerex-fire.com/products/regular-dry-chemical-stored-pressure-sodium-bicarbonate-extinguishers/.

The 2007 Committee recognized that a gauged fire extinguisher uses the same extinguishing agents as gauged fixed systems and wheeled units yet it's impossible to "heft" either, and therefore there isn't a requirement to do so. The same should apply to the smaller extinguishers. Additionally, the 2007 Committee determined that "hefting" was not a scientific method of inspection. The technical committee felt inspection criteria must have definable measurables that are consistent and repeatable, no matter who does the inspection. It was deemed that a human arm cannot be "properly calibrated", and thus "hefting" is left up to interpretation rather than definable criteria.

As a result, "hefting" and other items once required of the building owners' monthly inspection became part of the annual maintenance check by a licensed technician. This is obviously practical common sense. In fact, the 2013 NFPA-10 Technical Subcommittee recommended not changing the monthly inspection criteria, yet somehow the outdated practice, which cannot be addressed cost effectively by technology, was reinserted and now is part of the monthly check.

The other major change to the monthly inspection criteria was the removal to inspect for obstruction to the extinguisher. This is addressed in comment 6.1.3.3.1 **7.2.2.1** The addition of allowing the owner or the owner's agent (fire extinguisher distributor?) to determine the means of inspection is both an unnecessary addition, and can be interpreted as a way to make

implementing monitored technology more difficult. This and 7.2.2.2 were added following the 2012 code change in New Hampshire and is meant to directly undermined the authority of a governing body.

7.2.2.2 This is perhaps the most egregious of all the changes in the 2013 / 2018 editions of NFPA-10. This clause can be directly tied to the efforts of the fire extinguisher industry to undermine the authority of the New Hampshire State Fire Marshal following the 2012 code recognition of the technology as a mandated solution. This clause is directly questioning the authority of a governing body to determine code requirements.

It is no coincidence that the wave of changes that occurred in ’13 & ’18 follow on the 2012 code enhancement in New Hampshire. The numerous changes that have been adopted in NFPA-10 regarding monitored extinguishers, have been directly used in the state of New Hampshire to attack the code, and those enforcing it.

Monitored technology for extinguishers is recognized, correlated and proven. To require a local AHJ to now sign off on the technology each and every time a user wants to install, creates a tremendous barrier to use the technology, and gives local officials the means to ignore the actions of governing bodies.

7.2.2.5 The wording in this mirrors the inspection criteria for 2018. If the committee has created a new step for Class D Extinguishers, the language for inspecting it should mirror the 2010 requirements.

7.2.4.2.2 The addition of 7.2.4.2.2 is in direct conflict with 7.2.4.2.3, which was the only language in ’07 & ’10 regarding electronic record keeping and correlated with NFPA-72. This addition all but undoes the equivalency of the physical monthly inspection that technology offers and directly contradicts Section 1.2.2 that states *“Nothing in this standard shall be considered as a restriction on new technologies or alternative arrangements, provided that the level of protection as herein described is not lowered and is acceptable to the authority having jurisdiction.”*

A.3.3.10 This addendum undoes the wording in 2007 and 2010 with the intent to undermine the recognized technology while creating an unfair opportunity for a non-listed, non-supervised theft deterrent.

For the record en-Gauge welcomes the technology being introduced to the code as long as it’s held to the same level of accountability as all other life safety technologies. Even stand-alone smoke detectors must be listed and signal for power loss.

Emergency Nature: The NFPA Standard contains a conflict within the NFPA Standards or within another NFPA Standard. The proposed TIA intends to offer to the public a benefit that would lessen a recognized (known) hazard or ameliorate a continuing dangerous condition or situation. The proposed TIA intends to accomplish a recognition of an advance in the art of safeguarding property or life where an alternative method is not in current use or is unavailable to the public. The proposed TIA intends to correct a circumstance in which the revised NFPA Standard has resulted in an adverse impact on a product or method that was inadvertently overlooked in the total revision process or was without adequate technical (safety) justification of the action.

End users who have been successfully using monitored extinguisher technology for years are now being told that they are no longer compliant and are looking for immediate guidance.