



NATIONAL FIRE PROTECTION ASSOCIATION

The leading information and knowledge resource on fire, electrical and related hazards

AGENDA

NFPA Technical Committee on Dry and Wet Chemical Extinguishing Systems (DRY-AAA) NFPA 17/17A First Draft Meeting (A2026)

October 8, 2024
9:00 a.m. – 5:00 p.m. (ET)

Web/ Teleconference

To join the meeting, please contact Yiu Lee, via email at ylee@nfpa.org

- 1. Call to order.** Stephen Hill, Chair.
- 2. Introductions.** See committee roster attached.
- 3. Chair report.** Stephen Hill, Chair.
- 4. Staff liaison report.** Tom Goss.
- 5. Previous meeting minutes.** November 18, 2022 (Web/ Teleconference). See attached.
- 6. NFPA 17 First Draft.**
 - a. **Public Inputs.** See attached.
- 7. NFPA 17A First Draft.**
 - a. **Public Inputs.** See attached.
- 8. Other Business.**
- 9. Future meetings.**
- 10. Adjournment.**

Address List No Phone

Dry and Wet Chemical Extinguishing Systems

DRY-AAA

Stephen M. Hill	SE 08/09/2011	Larry Angle	IM 8/9/2011
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Bradley T. Howard	IM 8/5/2009	Bill Iseman	IM 10/28/2008
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Kurt M. Juliano	IM 08/17/2015	Edward J. Kaminski	E 1/1/1991
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Doug Kline	M 1/10/2008	Timothy J. Lawyer	SE 08/03/2016
Principal Nowak Supply Fire Systems 302 West Superior Street Fort Wayne, IN 46802 Fire Suppression Systems Association Alternate: Doug Lackey	DRY-AAA	Principal JENSEN HUGHES 11545 West Bernardo Court Suite 300 San Diego, CA 92127 Alternate: Peter Steven Mottola	DRY-AAA

Address List No Phone

09/24/2024

Dry and Wet Chemical Extinguishing Systems

DRY-AAA

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Miguel Segoviano	SE 04/02/2020	Steven A. Sheldon	SE 3/4/2008
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John Michael Sherwood	E 08/24/2021	Blake M. Shugarman	RT 11/2/2006
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Dry and Wet Chemical Extinguishing Systems

DRY-AAA

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Principal Amerex Corporation 7595 Gadsden Highway PO Box 81 Trussville, AL 35173-0081 Alternate: Brandon L. Smith	DRY-AAA	Principal Wright Fire Consulting, Inc. PO Box 250 Falkland, NC 27827	DRY-AAA
Christopher Zeitler	I 04/05/2016	Bruce J. Euler	M 8/9/2011
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Dry and Wet Chemical Extinguishing Systems

DRY-AAA

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		Principal: Doug Kline	
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Principal: Timothy J. Lawyer		Principal: Christopher S. O'Shell	
Kevin Richards	M 04/14/2021	Brandon L. Smith	M 11/29/2023
Alternate	DRY-AAA	Alternate	DRY-AAA
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Principal: Richard L. Lupien			
Laurie K. Szumla	IM 7/23/2008	Sean Troutt	M 08/17/2018
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		Principal: Adam D. Walker	

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Dry and Wet Chemical Extinguishing Systems

DRY-AAA

Edward D. Leedy	O 1/1/1990	Chad Duffy	6/19/2024
Member Emeritus	DRY-AAA	Staff Liaison	DRY-AAA
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		Quincy, MA 02169-7471	



NATIONAL FIRE PROTECTION ASSOCIATION

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MINUTES

NFPA Technical Committee on Dry and Wet Chemical Extinguishing Systems (DRY-AAA) NFPA 17/17A Second Draft Meeting (Annual 2024)

November 18, 2022
10:00am – 2:00pm (EDT)

Web/ Teleconference

1. **Call to order.** Stephen Hill, chair, called the meeting to order at 10:00am on November 18, 2022.
2. **Introductions.** Attendees introduced themselves and identified their affiliation. NFPA staff took attendance.
3. **Chair report.** Stephen Hill welcomed attendees and provided an overview of the meeting.
4. **Staff liaison report.** Tom Harris provided an overview of the standards development process and the revision cycle schedule.
5. **Previous meeting minutes.** The minutes from November 18, 2022 – Web Meeting/Teleconference were approved without revision.
6. **NFPA 17/17A Second Draft.**
 - a. **Review of Public Comments.** The Technical Committee reviewed the Public Comments and developed Second Revisions as necessary. These will be available in the Second Draft Report at www.nfpa.org/17next and www.nfpa.org/17Anext.
 - b. **Task group reports.** The following task groups provided their reports and recommendations.
 - i. **Task Group 1.** Art Black. The task group provided a report, and revisions were made. The task group has been discharged with thanks.
 - ii. **Task Group 2.** Kevin Richards. The task group provided a report, and revisions were made. The task group has been discharged with thanks.
 - iii. **Task Group 3.** David DeVries. The task group provided a report, and revisions were made. The task group has been discharged with thanks.
 - iv. **Task Group 4.** Scott Plumer. The task group provided a report, and revisions were made. The task group has been discharged with thanks.
7. **Other Business.**

- 8. Future meetings.** The next committee meeting will be around the same time in 2024. A meeting notification will be posted at www.nfpa.org/17next, www.nfpa.org/17Anext and when the meeting is scheduled.
- 9. Adjournment.** The meeting was adjourned at 2:00 PM on November 18, 2022.



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Attendees

Committee Members:

☒	Hill, Stephen	Chair	Hillfire Forensics, Inc.
☒	Angle, Larry	Principal	National Association of Fire Equipment
☒	Black, Art	Principal	Carmel Fire Protection Associates
☒	de Vries, David	Principal	Firetech Engineering Inc.
☒	Eckstein, Scott	Principal	Richardson Fire Department
☒	Fox, Steven	Principal	United Assn. of Journeymen & Apprentices
☒	Howard, Bradley	Principal	Koorsen Fire & Security
☒	Isemann, Bill	Principal	Guardian Fire Protection Services LLC
	Juliano, Kurt	Principal	All State Fire Equipment
☒	Kaminski, Edward	Principal	Clark County Department of Building and
	Kline, Doug	Principal	Fire Suppression Systems Association
☒	Lawyer, Timothy	Principal	JENSEN HUGHES
☒	Lindquist, Jacob	Principal	Minnesota State Fire Marshals Division
	Long, Richard	Principal	Exponent, Inc.
☒	Lupien, Richard	Principal	NFPA Industrial Fire Protection Section
☒	Matthews, Scott	Principal	AFEX Fire Suppression Systems
☒	McGreal, Michael	Principal	Firedyne Engineering, PC
☒	McVerry, Thomas	Principal	Academy Fire Protection
☒	Micke, Stephen	Principal	Allianz
☒	O'Shell, Christopher	Principal	Chubb Limited
☒	Plumer, Scott	Principal	Arvada Fire Protection District
☒	Quirk, Allen	Principal	California Association of Life Safety and
☒	Richardson, James	Principal	Lisle Woodridge Fire District
	Segoviano, Miguel	Principal	QSAP Solutions SC
	Sheldon, Steven	Principal	Fisher Engineering, Inc.
	Sherwood, John	Principal	Fairfax County Fire & Rescue Department
☒	Shugarman, Blake	Principal	UL LLC
☒	Stacy, Raymond	Principal	FM Global

[illegible]

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Guests:

James Shea – Nelbud
Paul Erickson – Heiser Logistics
Ed Giles – NAFED
Matt Huenink – AFEX
David Pelton – NAFED
Steve Kaitharath – NFPA Staff

Meeting Held by Teleconference
Total number in attendance: 43



Public Input No. 1-NFPA 17-2024 [Section No. 2.3.4]

2.3.4 UL Publications.

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

ANSI/ CAN/UL/ULC 300, Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment, 2019 2024 .

ANSI/ CAN/UL/ULC 1254, Pre-Engineered and Engineered Dry and Pre-Engineered Wet Chemical Extinguishing System Units, 2019 2024 .

Statement of Problem and Substantiation for Public Input

Update references to most current editions. Add ANSI to BI National Standards.

Submitter Information Verification

Submitter Full Name: Kelly Nicolello

Organization: UL Solutions

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Submittal Date: Sat Jun 01 11:20:12 EDT 2024

Committee: DRY-AAA



Public Input No. 2-NFPA 17-2024 [Chapter 3]

Chapter 3 Definitions

3.1 General.

The definitions contained in this chapter shall apply to the terms used in this standard. Where terms are not defined in this chapter or within another chapter, they shall be defined using their ordinarily accepted meanings within the context in which they are used. *Merriam-Webster's Collegiate Dictionary*, 11th edition, shall be the source for the ordinarily accepted meaning.

3.2 NFPA Official Definitions.

3.2.1* Approved.

Acceptable to the authority having jurisdiction.

3.2.2* Authority Having Jurisdiction (AHJ).

An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

3.2.3 Labeled.

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

3.2.4* Listed.

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

3.2.5 Shall.

Indicates a mandatory requirement.

3.2.6 Should.

Indicates a recommendation or that which is advised but not required.

3.2.7 Standard.

An NFPA standard, the main text of which contains only mandatory provisions using the word "shall" to indicate requirements and that is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Nonmandatory provisions are not to be considered a part of the requirements of a standard and shall be located in an appendix, annex, footnote, informational note, or other means as permitted in the NFPA manuals of style. When used in a generic sense, such as in the phrases "standards development process" or "standards development activities," the term "standards" includes all NFPA standards, including codes, standards, recommended practices, and guides.

3.3 General Definitions.

3.3.1 Auxiliary Equipment.

Listed equipment used in conjunction with the dry chemical systems, for example, to shut down power, fuel, or ventilation to the hazard being protected or to initiate signaling devices.

3.3.2 Caking.

A phenomenon that occurs when moisture chemically reacts with a dry chemical fire-extinguishing agent. This reaction results in materials that, being hydrated by moisture, stick together to form a large agglomerate, or what is more commonly referred to as lumps.

3.3.3* Calculation and Design.

The process of computing, with the use of equations, graphs, tables, or computer software, the system characteristics such as flow rate, pipe size, area, or volume protected by each nozzle, nozzle pressure, and pressure drop.

3.3.4 Clearance.

The air distance between extinguishing system equipment, including piping and nozzles, and unenclosed or uninsulated live electrical components not at ground potential. [2001, 2022]

3.3.5 Deficiency.

For inspection, testing, and maintenance of dry-chemical fire protection systems, a condition that will or has the potential to adversely affect the performance of a system or portion thereof but does not rise to the level of an impairment. (*See also, Annex B.*)

3.3.6 Discharge Nozzle.

Device from which the extinguishing agent is discharged to provide for suppression of a fire in the designated hazard. [17A, 2024]

3.3.7 Dry Chemical.

A powder composed of very small particles, usually sodium bicarbonate-, 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.

3.3.7.1 Multipurpose Dry Chemical.

Ammonium phosphate-based extinguishing agent that is effective on fires involving ordinary combustibles, such as wood or paper, and fires involving flammable liquids.

3.3.8 Duct.

3.3.8.1 Branch Duct.

The duct work that contains the exhaust air from a single hood or hazard area.

3.3.8.2 Common Duct.

The duct work containing the exhaust air from two or more branch ducts.

3.3.9 Expellant Gas.

The medium used to discharge extinguishing agent from its container. [17A, 2024]

3.3.10 Hose.

A flexible circular conduit for conveying extinguishing agent to discharge nozzles.

3.3.11 Impairment.

Any condition where a system, component of a system, or function of a system will not perform as intended. (*See also, Annex B.*)

3.3.12 Indicator.

A mechanical or electrical device that shows when an extinguishing system or a critical component of it is ready to operate or if it has already operated.

3.3.13 Inspection.

A visual examination of a system or portion thereof to verify that it appears to be in operating condition and is free of physical damage. [820, 2024]

3.3.14 Lumps.

Agglomerations of dry chemical that do not crumble into particles when dropped from a height of 4 in. (101 mm) onto a hard surface.

3.3.15 Maintenance.

Work, including, but not limited to, repair, replacement, and service, performed to ensure that equipment operates properly.

3.3.16 Manual.**3.3.16.1* Manufacturer's Design, Installation, and Maintenance Manual.**

The document referenced for the design, installation, and maintenance of the listed dry chemical extinguishing system equipment.

3.3.16.2 Owner's Manual.

A pamphlet containing the manufacturer's recommendations for the proper inspection and operation of the extinguishing system.

3.3.17 Operating Devices.

Mechanical, electrical, or pneumatic devices involved in the operation of a system. [17A, 2024]

3.3.18 Operation.**3.3.18.1 Automatic Operation.**

Operation without human intervention. [25, 2023]

3.3.18.2 Manual Operation.

Operation of a system or its components through human action. [25, 2023]

3.3.19* Pipe.

A rigid circular conduit for conveying the extinguishing agent to the discharge nozzle(s).

3.3.20 Recharge.

The replacement of the extinguishing agent and expellant gas. [17A, 2024]

3.3.21 Selector Valve.

A device used to direct dry chemical to the hazard being protected.

3.3.22 Servicing.

Performing maintenance, recharging, or hydrostatic testing.

3.3.23 Signal.

An indication of a condition communicated by electrical, visible, visual, audible, wireless, or other means. [72, 2022]

3.3.24 Trained.

A person who has undergone the instructions necessary to safely design, install, and reliably perform the maintenance and recharge service in accordance with the manufacturer's design, installation, and maintenance manual.

3.3.25 Transport Canada (TC).

The department that has jurisdiction over design and transportation of compressed gas cylinders and cartridges in Canada.

3.3.26 US Department of Transportation (DOT).

The department that has jurisdiction over the design and transportation of compressed gas cylinders and cartridges in the United States.

3.4 Systems Definitions.

3.4.1 Dry Chemical System.

A means of applying dry chemical that can be automatically or manually actuated to discharge through a distribution system onto or into the protected hazard, which could include auxiliary equipment.

3.4.2 Engineered Systems.

Those systems requiring individual calculation and design to determine the flow rates, nozzle pressures, pipe size, area, or volume protected by each nozzle, quantities of dry chemical, number and types of nozzles, and their placement in a specific system.

3.4.3 Hand Hose Line System.

A hose and nozzle assembly connected by fixed piping or connected directly to a supply of extinguishing agent. [122, 2023]

3.4.4 Local Application System.

A supply of dry chemical permanently connected to fixed piping with nozzles arranged to discharge directly onto the fire.

3.4.5* Pre-Engineered Systems.

Those systems having predetermined flow rates, nozzle pressures, and quantities of extinguishing agent and having specific pipe size, maximum and minimum pipe lengths, flexible-hose specifications, number of fittings, and number and types of nozzles.

3.4.6 Total Flooding System.

A supply of dry chemical permanently connected to fixed piping and nozzles that are arranged to discharge dry chemical into an enclosure surrounding the hazard.

Add definition of Fire Alarm System into Chapter 3.

Fire Alarm System. A system or portion of a combination system that consists of components and circuits arranged to monitor and annunciate the status of fire alarm or supervisory signal-initiating devices and to initiate the appropriate response to those signals.

Statement of Problem and Substantiation for Public Input

Currently there is no definition of a Fire Alarm System in Chapter 3. Definition comes from NFPA 72 (3.3.1.18).

Submitter Information Verification

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Submittal Date: Mon Jun 03 17:07:13 EDT 2024

Committee: DRY-AAA



Public Input No. 3-NFPA 17-2024 [Section No. 3.3.7]

3.3.7 Dry Chemical.

A powder composed of very small particles, usually sodium bicarbonate–, 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.

3.3.7.1 Multipurpose Dry Chemical.

Ammonium phosphate–based extinguishing agent that is effective on fires involving ordinary combustibles, such as wood or paper, and fires involving flammable liquids.

3.3.7.2 Sodium Bicarbonate Dry Chemical . Sodium bicarbonate based extinguishing agent that is effective on fires involving flammable and combustible liquids.

3.3.7.3 Potassium Bicarbonate Dry Chemical . Potassium bicarbonate based extinguishing agent that is effective on fires involving flammable and combustible liquids.

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Statement of Problem and Substantiation for Public Input

Section 3.3.7 references three different types of dry chemical agent, but only provides a single definition for “multipurpose” (Class ABC) dry chemical extinguishing agent (3.3.7.1). Adding a definition for sodium and potassium bicarbonate-based agents provides guidance on classification of fires (Class BC) where these type agents are utilized.

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Committee: DRY-AAA



Public Input No. 4-NFPA 17-2024 [Section No. 5.7.1.7]

5.7.1.7*

At least one readily accessible means for manual actuation shall be located in the path of egress or at a location acceptable to the AHJ.

5.7.1.7.1

Where manual actuation is used for protection of hazards other than mobile equipment, the manual actuation device shall be installed no more than 48 in. (1200 mm) and no less than 42 in. (1067 mm) above the floor.

Remove the Annex reference _ 5.7.1.7 * _ _ At least one readily accessible means for manual actuation shall be located in the path of egress or at a location acceptable to the AHJ. _

Statement of Problem and Substantiation for Public Input

Annex reference cited is not applicable with material as stated in Section 5.7.1.7. Further Annex citations A.5.7.17 and A.5.7.1.8 are identical. Suspect from last revision cycle an editorial error occurred regarding Annex material associated with A.5.7.1.7

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Submittal Date: Mon Jun 03 17:16:51 EDT 2024

Committee: DRY-AAA



Public Input No. 5-NFPA 17-2024 [Section No. 9.3]

9.3* Commercial Kitchen Hood, Duct, and Cooking Appliance Systems.

9.3.1

Dry chemical fire-extinguishing systems for commercial kitchen hood, duct, and cooking appliances shall comply with CAN/UL/ULC 300, *Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment*, or an equivalent listing standard.

9.3.1.1

Fixed automatic dry chemical extinguishing systems shall be installed in accordance with the terms of the listing, the manufacturer's design, installation, and maintenance manual, and this standard.

9.3.2

Each protected cooking appliance(s), individual hood(s), and branch exhaust duct(s) directly connected to the hood shall be protected by a system or systems designed and installed for simultaneous operation.

9.3.2.1

At least one fusible link or heat detector shall be installed within each exhaust duct opening in accordance with the manufacturer's listing.

9.3.2.2

A fusible link or heat detector shall be provided above each protected cooking appliance and in accordance with the extinguishing system manufacturer's listing.

9.3.2.3

Fusible links or heat detectors located at or within 12 in. (305 mm) into the exhaust duct opening and above the protected appliance shall be permitted to meet the requirements of 9.3.2.2.

9.3.3

Systems protecting two or more hoods, plenums, or both that meet the requirements of Section 5.2 shall be installed to ensure the simultaneous operation of all systems protecting the hoods, plenums, or both and associated cooking appliances located below the hoods.

9.3.4* Protection of Common Exhaust Duct.

9.3.4.1

Common exhaust ducts shall be protected by one of the following methods:

- (1) * Simultaneous operation of all independent hood, duct, and appliance protection systems
- (2) * Simultaneous operation of any hood, duct, and appliance protection system and the system(s) protecting the entire common exhaust duct

9.3.4.1.1

A fusible link or other mechanically operated heat detection device from the common duct fire-extinguishing system shall be located at each branch duct-to-common duct connection where electrical operation of the common duct fire-extinguishing system does not meet the requirements of 9.6.1.

9.3.4.1.2

Where a fusible link or mechanically operated heat detector is located at a branch duct-to-common duct connection, an access panel shall be installed in accordance with NFPA 96 to enable servicing of the detector when the detector is not accessible from the branch duct connection to the exhaust hood.

9.3.4.2

All sources of fuel or heat to appliances served by the common exhaust duct shall be shut down upon actuation of any protection system in accordance with 9.3.5.

9.3.4.3

The building owner(s) or the owner's agent shall be responsible for the protection of a common exhaust duct(s) used by more than one tenant.

9.3.4.3.1

The tenant shall be responsible for the protection of a common exhaust duct(s) serving hoods located within the tenant's space and up to the point of connection to the building owner's common exhaust duct.

9.3.4.3.2

The tenant's common duct shall be considered a branch duct to the building owner's common duct.

9.3.5* Shutoff Devices.

Upon actuation of any cooking equipment fire-extinguishing system, all sources of fuel and electric power that produce heat to all equipment protected by the system shall be shut down.

9.3.5.1

Steam supplied from an external source shall not require shutdown.

9.3.5.2*

Exhaust fans and dampers shall not be required to be shut down upon system actuation.

9.3.5.3

Any gas appliance not requiring protection but located under the same ventilating equipment shall be automatically shut off upon actuation of any extinguishing system.

9.3.5.4

Shutoff devices shall require manual resetting prior to fuel or power being restored. [96:10.4.4]

9.3.5.4.1

Where an electrical gas valve is used for shutting off gas to appliances, a manually reset relay shall be used to restore electrical power to the gas valve. [96:10.4.4.1]

Remove from standard Section 9.3* Commercial Kitchen Hood, Duct, and Cooking Appliance Systems and related Annex reference material.

- Section: 9.3 through 9.3.5.4.1
- Annex A: text and figures A.9.3 through A.9.3.5.2
- Chapter 2:
 - 2.3.4 "CAN/UL/ULC 300"
 - 2.4 "NFPA 96"
- Chapter 5:
 - 5.1 Use and Limitations – "line item #5"

Statement of Problem and Substantiation for Public Input

Fire extinguishing systems utilizing dry chemical for commercial kitchen hood, duct, and cooking appliances cannot comply with CAN/UL/ULC 300, Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment, or an equivalent listing standard. Thirty years have passed since compliance with CAN/UL/ULC 300 was evoked.

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Submittal Date: Mon Jun 03 17:19:08 EDT 2024

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Public Input No. 6-NFPA 17-2024 [Section No. 9.3.5 [Excluding any Sub-Sections]]

Upon actuation of any cooking equipment fire-extinguishing system, all sources of fuel and electric power that produce heat to all equipment protected by the system shall ~~be shut down~~ automatically shut off .

Statement of Problem and Substantiation for Public Input

For consistency between NFPA 17, 17A (4.4.4.1) and 96 (11.3.1). The proposed language is identical to the language found in NFPA 17A and 96. The existing language does not require automatic shut off of fuel or power.

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Public Input No. 7-NFPA 17-2024 [Section No. 9.5.2]

9.5.2

Where a fire ~~alarm signaling system~~ alarm system is serving the occupancy where the extinguishing system is located, the activation of the automatic fire-extinguishing system shall activate the fire ~~alarm signaling system~~ alarm system in accordance with the requirements of NFPA 72.

Statement of Problem and Substantiation for Public Input

See submitted PI by NAFED pertaining to add definition for “Fire Alarm System” into the standard for consistency. To correct inconsistencies amongst NFPA 17, 17A and 96 identifying the proper terminology for a “Fire Alarm System”

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Public Input No. 8-NFPA 17-2024 [Section No. 11.2.1.1]

11.2.1.1

As a minimum, inspection shall include verification of the following:

- (1) The extinguishing system is in its proper location.
- (2) The manual actuators are unobstructed.
- (3) The tamper indicators and seals are intact.
- (4) The maintenance tag or certificate is in place.
- (5) ~~The system shows no physical~~ No obvious physical damage or condition exists that might prevent operation.
- (6) The pressure gauge(s), if provided, is inspected physically or electrically to ensure it is in the operable range.
- (7) The nozzle blowoff caps, where provided, are intact and undamaged.
- (8) ~~Neither the protected equipment nor the~~ The hazard has been replaced, modified, or relocated. not changed, including replacement, modification, and relocation of protected equipment.
- (9) Training of personnel in the use and operation of the extinguishing system and portable fire extinguishers.

Statement of Problem and Substantiation for Public Input

Modify 11.2.1.1 (5) and (8) to align with same text as found in NFPA 17A 8.2.2. Add training of personnel into existing Section 11.2.1.1 as new (9). To safeguard personnel and to protect the public, operational personnel need to be trained in emergency response procedures.

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Submittal Date: Mon Jun 03 17:28:05 EDT 2024

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Public Input No. 10-NFPA 17-2024 [Section No. 11.3.1 [Excluding any Sub-Sections]]

A service technician who performs maintenance on an extinguishing system shall be trained and shall have passed a written or online test that is acceptable to the authority having jurisdiction.

The service technician shall possess a certification document confirming the requirements in 11.3.1 and issued by the manufacturer or testing organization that is acceptable to the authority having jurisdiction.

A service technician who has the applicable manufacturer's design, installation, and maintenance manual and service bulletins shall service the wet chemical fire-extinguishing system at intervals of no more than 6 months as outlined in 11.3.3.

At least semiannually and after any system activation, maintenance shall be conducted in accordance with the manufacturer's design, installation, and maintenance manual.

Statement of Problem and Substantiation for Public Input

Maintenance associated with wet and dry chemical systems is the same. Incorporating existing "maintenance" requirements for the service technician and maintenance steps found in NFPA 17A (8.3, 8.3.1, 8.3.1.1, 8.3.2, 8.3.3.1.1, 8.3.3.1.1.1) into NFPA 17 for continuity and consistency.

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Public Input No. 11-NFPA 17-2024 [Section No. 11.3.1.1]

11.3.1.1

As a minimum, ~~such maintenance~~ Maintenance shall include the following:

- (1) A check to see that the hazard has not changed
- (2) An examination of all detectors, expellant gas container(s), agent container(s), releasing devices, piping, hose assemblies, nozzles, signals, and all auxiliary equipment
- * Verification
- (3) The test outlined in 11.3.X.X.X.X to verify that the agent distribution piping is not obstructed .
- (4) Examination of the dry chemical (If there is evidence of caking, the dry chemical shall be discarded and the system shall be recharged in accordance with the manufacturer's instructions.)

11.3.X.X.X.X * A test using nitrogen or dry air shall be performed on the piping network at a pressure not to exceed the normal operating pressure of the extinguishing system and to verify that nitrogen or dry air has discharged out of each nozzle in the system. [17: 10.4.3.1]

The method of verification shall be acceptable to the authority having jurisdiction. [17: 10.4.3.2]

Piping shall not be hydrostatically tested. [17: 10.4.3.3]

Statement of Problem and Substantiation for Public Input

Maintenance associated with wet and dry chemical systems is the same. Incorporating existing "maintenance" requirements for the service technician and maintenance steps found in NFPA 17A (8.3, 8.3.1, 8.3.1.1, 8.3.2, 8.3.3.1.1, 8.3.3.1.1.1) into NFPA 17 for continuity and consistency.

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Public Input No. 9-NFPA 17-2024 [Section No. 11.3.1.5]

11.3.1.5*

All dry chemical systems shall be tested, which shall include the operation of the detection system, signals, and releasing devices, including manual stations and other associated equipment.

Add "new" **11.3.1.5.1** Where the dry chemical system is connected to a building fire alarm system, verification that alarm- sounding or notification devices and remote annunciation devices function. _

Statement of Problem and Substantiation for Public Input

This is a current requirement in Chapter 10 Plans and Acceptance NFPA 17 (10.4.3.5) and should also be required when performing maintenance.

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Public Input No. 13-NFPA 17-2024 [New Section after B.1]

TITLE OF NEW CONTENT

Audible or Visual Indicator Inoperable Impairment

Statement of Problem and Substantiation for Public Input

Separate “Inoperable” and “Needs Adjustment” into separate item findings in Annex B Table B.1

Audible or Visual Indicator Inoperable Impairment
Audible or Visual Indicator Needs Adjustment Deficiency

Statement of Problem and Substantiation for Public Input:

An audible or visual indicator that is “inoperable” should rise to the level of Impairment as stated in NFPA 17 2024 ed. 3.3.11 and should not be in the same Item finding box as “needs adjustment” which is a deficiency.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 12-NFPA 17-2024 [Section No. B.1]</u>	

Submitter Information Verification

Submitter Full Name: David Pelton
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Public Input No. 15-NFPA 17-2024 [New Section after B.1]

TITLE OF NEW CONTENT

Annex B Table B.1 Table does not have grid lines as shown NFPA 17A 2024 edition Annex C, Table C.1

Statement of Problem and Substantiation for Public Input

The missing grid lines are believed to be an editorial omission issue that did not get added as it is listed in NFPA 17A 2024 edition. The addition of the grid would aid in ease of readability and help to ensure proper capture of the text.

Note: the "printed" pamphlet edition of the standard does not have the table grid lines.

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Public Input No. 12-NFPA 17-2024 [Section No. B.1]

B.1

Table B.1 does not take into account every variation of the conditions needing repair or correction. Refer to the manufacturer's design, installation, and maintenance manual. Table B.1 should be used with good judgement by qualified personnel.

Table B.1 Common Deficiencies and Impairments

<u>Item(s)</u>	<u>Item Finding</u>	<u>Impairment</u>	<u>Deficiency</u>	
General	System not installed or maintained per the manufacturer's design, installation, and maintenance manual	X	-	
Discharge nozzles	Clogged with debris or grease	X	-	
Discharge nozzles	Protective caps missing	-		X
Discharge nozzles	Wrong type for hazard or installed improperly	X	-	
Manual actuator	Inoperable	X	-	
Manual actuator	Inaccessible	-		X
Manual actuator	Needs adjustment	-		X
Manual actuator	Signage missing	-		X
Automatic actuation	Inoperable	X	-	
Automatic actuation	Improper detector	X	-	
Automatic actuation	Improper fixed temperature-sensing element temperature rating	X	-	
Shutoff devices (gas or electric)	Inoperable	X	-	
Manual reset relay	Inoperable	X	-	
Exhaust fan	Inoperable (unless not needed due to a listed component of the ventilation system or by design of the extinguishing system)	-		X
Pipe, fittings, tubing, and hose	Clogged with debris or grease	X	-	
Pipe, fittings, tubing, and hose	Minor surface corrosion, minor cracking of nonmetallic components	-		X
Compressed gas cartridge	Missing or incorrect size	X	-	
Compressed gas cartridge	Needs hydrostatic testing	-		X

<u>Item(s)</u>	<u>Item Finding</u>	<u>Impairment</u>	<u>Deficiency</u>	
Compressed gas cartridge	Insufficient cartridge charge as indicated by weight, pressure, or periodic replacement	X	-	
Dry-chemical container	Empty or insufficient quantity (for nonpressurized containers)	X	-	
Dry-chemical container	Pressure too low (for pressurized containers)	X	-	
Dry-chemical container	Needs hydrostatic testing	-		X
Dry-chemical container	Corrosion or pitting in excess of the manufacturer's limits, structural damage, fire damage, repairs by soldering, welding, or brazing	X	-	
Dry-chemical container	Needs 6-year internal examination	-		X
Dry-chemical container	Semi-annual internal examination falls outside manufacturer's limitations	X	-	
Pressure regulator	Inoperable or falls outside manufacturer's design limits	X	-	
Selector valve	Inoperable, needs adjustment or maintenance	X	-	
Hazard	Hazard has changed	X	-	
Audible or visual indicator	~~Inoperable or needs~~ Needs adjustment	-		X
Connection to fire alarm system (if applicable)	Inoperable	-		X
Labeling	Missing, damaged, or illegible	-		X

Statement of Problem and Substantiation for Public Input

Separate "Inoperable" and "Needs Adjustment" into separate item findings in Annex B Table B.1

Audible or Visual Indicator	Inoperable	Impairment
Audible or Visual Indicator	Needs Adjustment	Deficiency

An audible or visual indicator that is "inoperable" should rise to the level of Impairment as stated in NFPA 17 2024 ed. 3.3.11 and should not be in the same Item finding box as "needs adjustment" which

is a deficiency.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 13-NFPA 17-2024 [New Section after B.1]	

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Committee: DRY-AAA



Public Input No. 14-NFPA 17-2024 [Section No. B.1]

B.1

Table B.1 does not take into account every variation of the conditions needing repair or correction. Refer to the manufacturer's design, installation, and maintenance manual. Table B.1 should be used with good judgement by qualified personnel.

Table B.1 Common Deficiencies and Impairments

<u>Item(s)</u>	<u>Item Finding</u>	<u>Impairment</u>	<u>Deficiency</u>	
General	System not installed or maintained per the manufacturer's design, installation, and maintenance manual	X	-	
Discharge nozzles	Clogged with debris or grease	X	-	
Discharge nozzles	Protective caps missing	-		X
Discharge nozzles	Wrong type for hazard or installed improperly	X	-	
Manual actuator	Inoperable	X	-	
Manual actuator	Inaccessible	-		X
Manual actuator	Needs adjustment	-		X
Manual actuator	Signage missing	-		X
Automatic actuation	Inoperable	X	-	
Automatic actuation	Improper detector	X	-	
Automatic actuation	Improper fixed temperature-sensing element temperature rating	X	-	
Shutoff devices (gas or electric)	Inoperable	X	-	
Manual reset relay	Inoperable	X	-	
Exhaust fan	Inoperable (unless not needed due to a listed component of the ventilation system or by design of the extinguishing system)	-		X
Pipe, fittings, tubing, and hose	Clogged with debris or grease	X	-	
Pipe, fittings, tubing, and hose	Minor surface corrosion, minor cracking of nonmetallic components	-		X
Compressed gas cartridge	Missing or incorrect size	X	-	
Compressed gas cartridge	Needs hydrostatic testing	-		X

<u>Item(s)</u>	<u>Item Finding</u>	<u>Impairment</u>	<u>Deficiency</u>	
Compressed gas cartridge	Insufficient cartridge charge as indicated by weight, pressure, or periodic replacement	X	-	
Dry-chemical container	Empty or insufficient quantity (for nonpressurized containers)	X	-	
Dry-chemical container	Pressure too low (for pressurized containers)	X	-	
Dry-chemical container	Needs hydrostatic testing	-		X
Dry-chemical container	Corrosion or pitting in excess of the manufacturer's limits, structural damage, fire damage, repairs by soldering, welding, or brazing	X	-	
Dry-chemical container	Needs 6-year internal examination	-		X
Dry-chemical container	Semi-annual internal examination falls outside manufacturer's limitations	X	-	
Pressure regulator	Inoperable or falls outside manufacturer's design limits	X	-	
Selector valve	Inoperable, needs adjustment or maintenance	X	-	
Hazard	Hazard has changed	X	-	
Audible or visual indicator	Inoperable or needs adjustment	-		X
Connection to fire alarm system (if applicable)	Inoperable	-	<u>X</u>	
Labeling	Missing, damaged, or illegible	-		X

Statement of Problem and Substantiation for Public Input

Annex B Table B.1 where the "Connection to Fire Alarm System" is found to be inoperable, this should be an impairment and not a deficiency.

Consistency when identifying a required function/component as inoperable should remain equal with the rest of the table and other references within the standard. The definition of impairment in NFPA 17 2024 ed. 3.3.11 states "Any condition where a system, component of a system, or function of a system will not perform as intended."

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Public Input No. 11-NFPA 17A-2024 [Section No. 2.3.1]

2.3.1 UL Publications.

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

CAN/UL/ULC 300, *Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment*, 2019.

CAN/UL/ULC 1254, *Pre-Engineered and Engineered Dry and Pre-Engineered Wet Chemical Extinguishing System Units*, 2019.

[UL 710B, *Recirculating Systems*, 2011 \(or 2014\) edition?](#)

Statement of Problem and Substantiation for Public Input

There is no reference to NFPA 17A with respect to automatic fire-extinguishing systems when a recirculating system is employed. Automatic fire-extinguishing equipment, provided as part of a listed recirculating system shall comply with UL 710B (NFPA 96 – 10.2.5).

Recirculating systems have gained popularity due to expanded market opportunities for this type of cooking operations in buildings, mobile and temporary facilities, in addition to the cost saving associated with the installation of ventilation control equipment that exits a building. AHJs (fire service, insurance underwriters, etc.) often question whether the wet chemical fire-extinguishing equipment is compliant with NFPA 17A which currently only references UL 300. The lack of reference in NFPA 17A has caused confusion. The reference addition of UL 710B will eliminate this confusion and align with the existing requirements of NFPA 96, Chapter 14.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 10-NFPA 17A-2024 [Section No. 5.1 [Excluding any Sub-Sections]]	

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Committee: DRY-AAA



Public Input No. 7-NFPA 17A-2024 [Section No. 2.3.1]

2.3.1 UL Publications.

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

ANSI/ CAN/UL/ULC 300, Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment, 2019 2024 .

ANSI/ CAN/UL/ULC 1254, Pre-Engineered and Engineered Dry and Pre-Engineered Wet Chemical Extinguishing System Units, 2019 2022 .

Statement of Problem and Substantiation for Public Input

Update references to most current editions. Add ANSI to BI National Standards.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 8-NFPA 17A-2024 [Section No. D.1.2.2]</u>	

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Submittal Date: Sat Jun 01 11:23:37 EDT 2024

Committee: DRY-AAA



Public Input No. 9-NFPA 17A-2024 [Section No. 3.3]

3.3 General Definitions.

3.3.1 Auxiliary Equipment.

Listed equipment used in conjunction with the wet chemical systems, for example, to shut down power, fuel, or ventilation to the hazard being protected or to initiate signaling devices.

3.3.2 Deficiency.

For inspection, testing, and maintenance of wet-chemical fire protection systems, a condition that will or has the potential to adversely affect the performance of a system or portion thereof but does not rise to the level of an impairment. (*See also, Annex C.*)

3.3.3 Discharge Nozzle.

Device from which the extinguishing agent is discharged to provide for suppression of a fire in the designated hazard.

3.3.4 Duct.

3.3.4.1 Branch Duct.

The duct work that contains the exhaust air from a single hood or hazard area.

3.3.4.2 Common Duct.

The duct work containing the exhaust air from two or more branch ducts.

3.3.5 Expellant Gas.

The medium used to discharge extinguishing agent from its container.

3.3.6 Hose.

A flexible circular conduit for conveying extinguishing agent to discharge nozzles.

3.3.7 Impairment.

Any condition where a system, component of a system, or function of a system will not perform as intended. (*See also, Annex C.*)

3.3.8 Indicator.

A mechanical or electrical device that shows when an extinguishing system or critical component of it is ready to operate or if it has already operated.

3.3.9* Inspection.

A visual examination of a system or portion thereof to verify that it appears to be in operating condition and is free of physical damage. [820, 2024]

3.3.10 Liquid Agent.

See 3.3.26, Wet Chemical.

3.3.11 Maintenance.

Work, including, but not limited to, repair, replacement, and service, performed to ensure that equipment operates properly. [72, 2022]

3.3.12 Manual.

3.3.12.1* Manufacturer's Design, Installation, and Maintenance Manual.

The document referenced for design, installation, and maintenance of the listed wet chemical extinguishing system equipment.

3.3.12.2 Owner's Manual.

A pamphlet containing the manufacturer's recommendations for inspection and operation of the extinguishing system.

3.3.13* Mobile Equipment.

Wheeled, skid-mounted, track-mounted, or rail-mounted equipment capable of moving or being moved, not including mobile or temporary cooking operations.

3.3.14* Operating Devices.

Mechanical, electrical, or pneumatic devices involved in the operation of a system.

3.3.15 Operation.

3.3.15.1 Automatic Operation.

Operation without human intervention. [25, 2023]

3.3.15.2 Manual Operation.

Operation of a system or its components through human action. [25, 2023]

3.3.16* Pipe.

A rigid circular conduit for conveying the extinguishing agent to the discharge nozzle(s). [17, 2024]

3.3.17* Pre-Engineered Systems.

Those systems having predetermined flow rates, nozzle pressures, and quantities of extinguishing agent and having specific pipe size, maximum and minimum pipe lengths, flexible hose specifications, number of fittings, and number and types of nozzles.

3.3.18 Recharge.

The replacement of the extinguishing agent and expellant gas.

3.3.19 Servicing.

Performing maintenance, recharging, or hydrostatic testing.

3.3.20 Shutoff Devices.

Devices that operate simultaneously with the extinguishing system to shut off fuel and power to equipment protected by the system and other equipment required to be shut off upon operation of the system.

3.3.21 Signal.

An indication of a condition communicated by electrical, visible, visual, audible, wireless, or other means. [72, 2022]

3.3.22 Trained.

A person who has undergone the instructions necessary to safely design, install, and reliably perform the maintenance and recharge service in accordance with the manufacturer's design, installation, and maintenance manual. [17, 2024]

3.3.23 Transport Canada (TC).

The department that has jurisdiction over design and transportation of compressed gas cylinders and cartridges in Canada.

3.3.24 US Department of Transportation (DOT).

The department that has jurisdiction over the design and transportation of compressed gas cylinders and cartridges in the United States.

3.3.25 Wet Agent.

See 3.3.26, Wet Chemical.

3.3.26* Wet Chemical.

Normally an aqueous solution of organic or inorganic salts or a combination thereof that forms an extinguishing agent.

Add definition of Fire Alarm System into Chapter 3 (place in alphabetic order accordingly)

Fire Alarm System. A system or portion of a combination system that consists of components and circuits arranged to monitor and annunciate the status of fire alarm or supervisory signal-initiating devices and to initiate the appropriate response to those signals .

Statement of Problem and Substantiation for Public Input

Currently there is no definition of a Fire Alarm System in NFPA 17A Chapter 3. Definition comes from NFPA 72 (3.3.1.18).

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Public Input No. 4-NFPA 17A-2024 [New Section after 3.3.3]

Design (Engineering Function)

An engineering process that involves the analysis, calculation, and specification of the system components and their configurations to ensure compliance with applicable codes, listings, standards, and performance criteria. This includes determining the types and sizes of suppression agents, the arrangement of nozzles, and the overall system architecture to achieve effective fire protection.

Statement of Problem and Substantiation for Public Input

The term Design is not defined in NFPA 17A

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Submittal Date: Tue May 28 09:38:41 EDT 2024

Committee: DRY-AAA



Public Input No. 5-NFPA 17A-2024 [New Section after 3.3.9]

Layout

Involves the planning, physical placement, and routing of system components, such as pipes, nozzles, detection, and controls, based on the engineered design as well as the creation of sketches or drawings that detail the arrangement and installation within the protected hazard. Layout ensures that the system is installed correctly and efficiently within the hazard, following the specifications provided in the design phase but without altering the fundamental engineering calculations and specifications.

Statement of Problem and Substantiation for Public Input

Layout is a separate and distinct function from design and should be defined separately

Submitter Information Verification

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Submittal Date: Tue May 28 09:40:46 EDT 2024

Committee: DRY-AAA



Public Input No. 10-NFPA 17A-2024 [Section No. 5.1 [Excluding any Sub-Sections]]

Wet chemical fire-extinguishing systems for the protection of cooking operations shall be listed and shall meet or exceed the requirements of CAN/UL/ULC 1254, *Pre-Engineered Dry and Wet Chemical Extinguishing System Units*, and CAN/UL/ULC 300, *Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment* ~~Equipment~~ or UL710B, Recirculating Systems .

Statement of Problem and Substantiation for Public Input

There is no reference to NFPA 17A with respect to automatic fire-extinguishing systems when a recirculating system is employed. Automatic fire-extinguishing equipment, provided as part of a listed recirculating system shall comply with UL 710B (NFPA 96 – 10.2.5).

Recirculating systems have gained popularity due to expanded market opportunities for this type of cooking operations in buildings, mobile and temporary facilities, in addition to the cost saving associated with the installation of ventilation control equipment that exits a building. AHJs (fire service, insurance underwriters, etc.) often question whether the wet chemical fire-extinguishing equipment is compliant with NFPA 17A which currently only references UL 300. The lack of reference in NFPA 17A has caused confusion. The reference addition of UL 710B will eliminate this confusion and align with the existing requirements of NFPA 96, Chapter 14.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 11-NFPA 17A-2024 [Section No. 2.3.1]	

Submitter Information Verification

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Public Input No. 12-NFPA 17A-2024 [Section No. 5.2.1.9]

5.2.1.9

Where a fire ~~alarm signaling system~~ alarm system is serving the occupancy where the extinguishing system is located, the actuation of the automatic fire-extinguishing system shall actuate the fire ~~alarm signaling system~~ alarm system in accordance with the requirements of NFPA 72. [96:10.6.2]

Statement of Problem and Substantiation for Public Input

See submitted PI by NAFED pertaining to add definition for “Fire Alarm System” into the standard for consistency. To correct inconsistencies amongst NFPA 17, 17A and 96 identifying the proper terminology for a “Fire Alarm System”

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Submittal Date: Mon Jun 03 21:03:58 EDT 2024

Committee: DRY-AAA



Public Input No. 3-NFPA 17A-2024 [New Section after 5.3.1]

5.3.1.3*

The reserve power supply indicated in 5.3.1 is for system supervision and shall be sized to provide a minimum of 24 hrs of local signal indication as described in 5.3.1.1 and signal transmission to a building fire alarm system where the building is equipped with a building fire alarm system.

A.5.3.1.3

In the event of a power failure the extinguishing system should be considered non-operational. The reserve power supply is to ensure the system is capable of indicating and transmitting it's trouble status in the event of a power failure. While on reserve power the system is not required to provide the same level of functionality required during normal operations including automatic detection, manual actuation, agent discharge, or the shut down of fuel or heat sources.

Statement of Problem and Substantiation for Public Input

NFPA-17A does not clearly define the duration or functionality required for an electrical type extinguishing system in the event of power loss. There is a common practice of using a 120V shunt trip for the shutdown of cooking appliances however while on reserve power the kitchen extinguishing systems that we're observed were unable to shunt the appliances because it no longer has 120V power to perform the shunt. Although there are other methods and equipment that could be implemented to perform the shunting without the 120V the installing parties indicated that this approach is common industry practice and the general assumption is that "power loss" is typically for a whole building and would simultaneously impact both the kitchen extinguishing system and the cooking appliances.

That standards for fire alarm and clean agent type systems provide clear sections that the systems should be capable of full functionality while on standby power however the intended functionality of a kitchen extinguishing system, and more specifically the shut down of electrically powered cooking equipment, in the event of power loss is unclear within NFPA-17A. This ambiguity has made it difficult for project stakeholders to ensure the intent of NFPA-17A is being followed.

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Submittal Date: Thu Feb 08 10:55:12 EST 2024

Committee: DRY-AAA



Public Input No. 6-NFPA 17A-2024 [Section No. 7.2]

7.2* Review and Certification.

~~Design~~ Layout and installation of systems shall be performed only by persons properly trained and qualified to ~~design and/or~~ install the specific system being provided. The installer shall provide certification to the authority having jurisdiction that the installation complies with the terms of the listing and the manufacturer's instructions and/or approved design.

Statement of Problem and Substantiation for Public Input

Design is an engineering function preformed by the manufactures of the fire systems not the installation contractor. Layout better defines the function and role of the installer.

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Public Input No. 13-NFPA 17A-2024 [Section No. 7.4.6]

7.4.6 Building Fire Alarm System.

Where the system is connected to a building fire alarm system, verification that alarm-sounding or notification devices and remote annunciation devices are functional shall be required.

Statement of Problem and Substantiation for Public Input

Building alarm system is a general/generic term for any alarm system type. The addition of the word “fire” eliminates confusion between different types of alarm systems that may be present in a building.

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Public Input No. 14-NFPA 17A-2024 [Section No. 8.2.2]

8.2.2

At a minimum, the inspection shall include verification of the following:

- (1) The extinguishing system is in its proper location.
- (2) The manual actuators are unobstructed.
- (3) The tamper indicators and seals are intact.
- (4) The maintenance tag or certificate is in place.
- (5) No obvious physical damage or condition exists that might prevent operation.
- (6) The pressure gauge(s), if provided, has been inspected physically or electronically to ensure it is in the operable range.
- (7) The nozzle blowoff caps, where provided, are intact and undamaged.
- (8) The hazard has not changed, including replacement, modification, and relocation of protected equipment.
- (9) [Training of personnel in the use and operation of the extinguishing system and portable fire extinguishers.](#)

Statement of Problem and Substantiation for Public Input

Add training for kitchen personnel into existing Section 8.2.2 as new (9). Commercial cooking operations experience high personnel turnover. To safeguard personnel and to protect the public, operational personnel need to be trained in emergency response procedures.

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Public Input No. 15-NFPA 17A-2024 [Section No. 8.3.3.4]

8.3.3.4*

All wet chemical systems shall be tested, which shall include operation of the detection system signals and releasing devices, including manual stations and other associated equipment.

8.3.3.4.1 - Where the wet chemical system is connected to a building fire alarm system, verification that alarm-sounding or notification devices and remote annunciation devices function.

Statement of Problem and Substantiation for Public Input

Add new subsection 8.3.3.4.1

This is a requirement of Chapter 7 Plans and Acceptance NFPA 17A 7.4.6 and should also be a requirement when performing maintenance.

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Public Input No. 19-NFPA 17A-2024 [New Section after A.8.3.3.4]

TITLE OF NEW CONTENT

A-8.3.3.5 _ An impairment is any condition where a system, component of a system, or function of a system does not perform as intended in a fire event. A condition such as the failure of any actuation component, mechanical device, electrical device, detector, container, pipe, hose, fitting, or nozzle to perform its intended function is considered to be an impairment .

Statement of Problem and Substantiation for Public Input

Add New Annex Reference A-8.3.3.5.

For consistency between NFPA 17 and 17A and for clarification of an impairment. This Annex material is found in NFPA 17 (A-11.3.1.6) but not in NFPA 17A.

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Public Input No. 17-NFPA 17A-2024 [New Section after C.1]

TITLE OF NEW CONTENT

Audible or Visual Indicator

Needs Adjustment

Deficiency

Statement of Problem and Substantiation for Public Input

Separate “Inoperable” and “Needs Adjustment” into separate item findings in Annex C Table C.1
An audible or visual indicator that is “inoperable” should rise to the level of Impairment as stated in NFPA 17A 2024 ed. 3.3.7 and should not be in the same Item finding box as “needs adjustment” which is a deficiency.

Related Public Inputs for This Document

Related Input

Relationship

Public Input No. 16-NFPA 17A-2024 [Section No. C.1]

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Submitter Full Name: David Pelton

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Public Input No. 16-NFPA 17A-2024 [Section No. C.1]

C.1

Table C.1 does not take into account every variation of the conditions needing repair or correction. Refer to the manufacturer's design, installation, and maintenance manual. Table C.1 should be used with good judgement by qualified personnel.

Table C.1 Common Deficiencies and Impairments

<u>Item(s)</u>	<u>Item Finding</u>	<u>Impairment</u>	<u>Deficiency</u>
General	System not installed or maintained per the manufacturer's design, installation, and maintenance manual	X	-
Discharge nozzles	Clogged with debris or grease	X	-
Discharge nozzles	Protective caps missing	-	X
Discharge nozzles	Wrong type for hazard or installed improperly	X	-
Manual actuator	Inoperable	X	-
Manual actuator	Inaccessible	-	X
Manual actuator	Needs adjustment	-	X
Manual actuator	Signage missing	-	X
Automatic actuation	Inoperable	X	-
Automatic actuation	Improper detector	X	-
Automatic actuation	Improper fixed temperature-sensing element temperature rating	X	-
Shutoff devices (gas or electric)	Inoperable	X	-
Manual reset relay	Inoperable	X	-
Exhaust fan	Inoperable (unless not needed due to a listed component of the ventilation system or by design of the extinguishing system)	-	X
Makeup air supply (if applicable)	Inoperable	-	X
Make up air supply (if applicable)	Does not shut off	X	-
Pipe, fittings, tubing, and hose	Clogged with debris or grease	X	-
Pipe, fittings, tubing, and hose	Minor surface corrosion, minor cracking of nonmetallic components	-	X
Compressed gas cartridge	Missing or incorrect size	X	-
Compressed gas cartridge	Needs hydrostatic testing	-	X
Compressed gas cartridge	Insufficient cartridge charge as indicated by weight, pressure, or periodic replacement	X	-
Wet-chemical container	Empty or insufficient quantity (for nonpressurized containers)	X	-
Wet-chemical container	Pressure too low (for pressurized containers)	X	-
Wet-chemical container	Needs hydrostatic testing	-	X
Wet-chemical container	Corrosion or pitting in excess of the manufacturer's limits, structural damage, fire damage, repairs by soldering, welding, or brazing	X	-

<u>Item(s)</u>	<u>Item Finding</u>	<u>Impairment</u>	<u>Deficiency</u>
Pressure regulator	Inoperable or falls outside manufacturer's design limits	X	-
Hazard	Hazard has changed	X	-
Audible or visual indicator	Inoperable or needs adjustment	-	X
Connection to fire alarm system (if applicable)	Inoperable	-	<u>X</u>
Labeling	Missing, damaged, or illegible	-	X

Statement of Problem and Substantiation for Public Input

Separate "Inoperable" and "Needs Adjustment" into separate item findings in Annex C Table C.1
An audible or visual indicator that is "inoperable" should rise to the level of Impairment as stated in NFPA 17A 2024 ed. 3.3.7 and should not be in the same Item finding box as "needs adjustment" which is a deficiency.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
Public Input No. 17-NFPA 17A-2024 [New Section after C.1]	

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Public Input No. 18-NFPA 17A-2024 [Section No. C.1]

C.1

Table C.1 does not take into account every variation of the conditions needing repair or correction. Refer to the manufacturer's design, installation, and maintenance manual. Table C.1 should be used with good judgement by qualified personnel.

Table C.1 Common Deficiencies and Impairments

<u>Item(s)</u>	<u>Item Finding</u>	<u>Impairment</u>	<u>Deficiency</u>
General	System not installed or maintained per the manufacturer's design, installation, and maintenance manual	X	-
Discharge nozzles	Clogged with debris or grease	X	-
Discharge nozzles	Protective caps missing	-	X
Discharge nozzles	Wrong type for hazard or installed improperly	X	-
Manual actuator	Inoperable	X	-
Manual actuator	Inaccessible	-	X
Manual actuator	Needs adjustment	-	X
Manual actuator	Signage missing	-	X
Automatic actuation	Inoperable	X	-
Automatic actuation	Improper detector	X	-
Automatic actuation	Improper fixed temperature-sensing element temperature rating	X	-
Shutoff devices (gas or electric)	Inoperable	X	-
Manual reset relay	Inoperable	X	-
Exhaust fan	Inoperable (unless not needed due to a listed component of the ventilation system or by design of the extinguishing system)	-	X
Makeup air supply (if applicable)	Inoperable	-	X
Make up air supply (if applicable)	Does not shut off	X	-
Pipe, fittings, tubing, and hose	Clogged with debris or grease	X	-
Pipe, fittings, tubing, and hose	Minor surface corrosion, minor cracking of nonmetallic components	-	X
Compressed gas cartridge	Missing or incorrect size	X	-
Compressed gas cartridge	Needs hydrostatic testing	-	X
Compressed gas cartridge	Insufficient cartridge charge as indicated by weight, pressure, or periodic replacement	X	-
Wet-chemical container	Empty or insufficient quantity (for nonpressurized containers)	X	-
Wet-chemical container	Pressure too low (for pressurized containers)	X	-
Wet-chemical container	Needs hydrostatic testing	-	X
Wet-chemical container	Corrosion or pitting in excess of the manufacturer's limits, structural damage, fire damage, repairs by soldering, welding, or brazing	X	-

<u>Item(s)</u>	<u>Item Finding</u>	<u>Impairment</u>	<u>Deficiency</u>
Pressure regulator	Inoperable or falls outside manufacturer's design limits	X	-
Hazard	Hazard has changed	X	-
Audible or visual indicator	Inoperable or needs adjustment	-	X
Connection to fire alarm system (if applicable)	Inoperable	-	<u>X</u>
Labeling	Missing, damaged, or illegible	-	X

Statement of Problem and Substantiation for Public Input

Annex C Table C.1 where the "Connection to Fire Alarm System" is found to be inoperable, this should be an impairment and not a deficiency.

Consistency when identifying a required function/component as inoperable should remain equal with the rest of the table and other references within the standard. The definition of impairment in NFPA 17A 2024 ed. 3.3.7 states "Any condition where a system, component of a system, or function of a system will not perform as intended.

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Public Input No. 8-NFPA 17A-2024 [Section No. D.1.2.2]

D.1.2.2 UL Publications.

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

ANSI/ CAN/UL/ULC 300, Fire Testing of Fire Extinguishing Systems for Protection of Commercial Cooking Equipment, 2019 2024 .

UL 300A, Outline of Investigation for Extinguishing System Units for Residential Range Top Cooking Surfaces, 2006.

ANSI/ CAN/UL/ULC 1254, Pre-Engineered and Engineered Dry and Pre-Engineered Wet Chemical Extinguishing System Units, 2019 _ 2022 .

Statement of Problem and Substantiation for Public Input

Update references to most current editions. Add ANSI to BI National Standards.

Related Public Inputs for This Document

<u>Related Input</u>	<u>Relationship</u>
<u>Public Input No. 7-NFPA 17A-2024 [Section No. 2.3.1]</u>	

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