AGENDA

NFPA Technical Committee on Fundamentals (FCC-FUN)
NFPA 1 Second Draft Meeting (A2026)

June 2 – 3, 2025
8:00 a.m. (ET)

Embassy Suites Savannah Historic District, Savannah, GA
To join the meeting, please contact jyee@nfpa.org

1. **Call to order.** James Peterkin.
2. **Introductions.** See committee roster attached.
3. **Chair report.** James Peterkin.
4. **Staff liaison report.** Jennifer Sisco.
   a. **Process overview**.
   b. **Committee Meeting Guide**.
5. **Previous meeting minutes.** June 2024 Orlando. See attached.
6. **NFPA 1 Correlating Committee First Draft Minutes.**
7. **NFPA 1 Second Draft.**
   a. **Public Comments.** See attached.
   b. **Task group report(s).**
      i. **Extract**. M. O'Brian.
      ii. **Restructuring**. S. Clary.
      iii. **Battery.** K. Nicolello.
      iv. **Photovoltaic.** W. Palazini.
      v. **Temporary Use**. R. Solomon.
      vi. **Alcohol-Based Hand-Rub**. B. Johnson.
      vii. **In-Building Emergency Responder Communication Coverage**. B. Johnson.
   c. **Presentation(s).**
   d. **Committee Inputs.** See attached.
8. **Other Business.**
9. **Future meetings.**
10. **Adjournment.**

Address List No Phone

05/09/2025
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FCC-FUN

Fundamentals of the Fire Code

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Fundamentals of the Fire Code

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Jen Sisco 8/12/2020
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MINUTES

NFPA Technical Committee on Fundamentals of the Fire Code (FCC-FUN)
NFPA 1 First Draft Meeting (A2026)

June 24, 2024 and June 25, 2024

Holiday Inn Orlando-Disney Springs, Orlando, FL

1. **Call to order.** James Peterkin, chair, called the meeting to order at 8:00 a.m. (ET) on June 24, 2024.
2. **Introductions.** Attendees introduced themselves and identified their affiliation.
3. **Chair report.** James Peterkin welcomed attendees and provided an overview of the meeting.
4. **Staff liaison report.** Jennifer Sisco provided an overview of the standards development process, the revision cycle schedule, and the process for reference publication and extract updates.
5. **Previous meeting minutes.** The minutes for the February 2024 web/teleconference were approved without revision.
6. **Items from Correlating Committee Pre-First Draft Meeting.** February 2024 web/teleconference.
   a. **Restructuring.** See the FCC-FUN Restructuring Task Group report.
   b. **Extract Consistency.** See the FCC-FUN Extracts Task Group report.
   c. **Correlating Committee Battery Task Group.** See the FCC-FUN Battery Task Group report.
7. **NFPA 1 First Draft.**
   a. **Review of Public Inputs.** The Technical Committee reviewed the Public Inputs and developed First Revisions and Committee Inputs as necessary. These will be available in the First Draft Report at www.nfpa.org/1.
   b. **Task group report.** The following task group provided their reports and recommendations.
      i. **Extract**. M. O'Brian. The task group provided a report (see Agenda), First Revisions and Committee Inputs were developed. The task group was reconstituted to continue work.
      ii. **Restructuring**. S. Clary. The task group provided a report (see attached), First Revisions were developed. The task group was reconstituted to continue work.

iii. **Battery.** K. Nicolello. The task group provided a report (see Agenda), First Revisions and Committee Inputs were developed. The task group was reconstituted to continue work.

iv. **Photovoltaic.** W. Palazini. The task group provided a report (see attached), Committee Inputs were developed. The task group was reconstituted to continue work.

c. **Presentation(s).** The committee heard presentations from the following individuals.

i. Jeff Shapiro. Spoke against Public Inputs No. 257 and 258. No visuals were presented.

ii. Mark Fesseden. Spoke in favor of Public Inputs No. 257 and 258. No visuals were presented.

d. **New task groups.** The following task groups were appointed to work subsequent to the meeting:

i. **Temporary Use**. TG Chair: Robert Solomon. Members: Tony Apfelbeck, Bruce Johnson, Steven Sawyer, and Ken Bush. Review the proposed requirements in Committee Inputs No. 9 and 10, and submit public comments or provide a recommendation to the technical committee prior to the second draft meeting.

ii. **Alcohol-Based Hand-Rub**. TG Chair: Bruce Johnson. Members: Sarina Hart, Michael O-Brian, Justin Schwartz, and Steven Orlowski. Review the proposed requirements in Committee Input No. 16 and submit public comments or provide a recommendation to the technical committee prior to the second draft meeting.

iii. **In-Building Emergency Responder Communication Coverage**. TG Chair: Bruce Johnon. Members: Tony Apfelbeck, Richard Roberts, Shane Clary, Steve Orlowski, and Michael O'Brian. Review the proposed requirements in Committee Inputs No. 155, and submit public comments or provide a recommendation to the technical committee prior to the second draft meeting.

e. **Request to the Correlating Committee.** The Technical Committee on Fundamentals of the Fire Code passed a motion to add this note to the minutes requesting the Fire Code Correlating Committee consider appointing a task group to review the requirements in 1.1.1. This section includes a list of items which are within the scope of NFPA 1. It is the opinion of this technical committee that there are redundancies as well as potential gaps in this list of items within the scope of NFPA 1. Since the scope impacts all three technical committees, this technical committee is requesting that the correlating committee consider appointing a task group to review this section. See related action taken by this technical committee related to Public Inputs No. 215 and 59.

8. **Other Business.** None.

9. **Future meetings.** The next committee meeting will be in Spring or early Summer of 2025. A meeting notification will be posted at www.nfpa.org/1next when the meeting is scheduled.

10. **Adjournment.** The meeting was adjourned at 6:46 p.m. (ET) on June 25, 2024.

Attendees

Committee Members:

✓	Peterkin, James	Chair	TLC Engineering Rep. NFPA Health Care Section
✓	Apfelbeck, Anthony	Principal	Altamonte Springs Building & Fire Safety
✓	Bellamy, Tracey	Principal	Telgian Corporation
	Browning, Butch	Principal	Louisiana Office of State Fire Marshal Rep. International Association of Fire Chiefs
✓	Bush, Kenneth	Principal	Maryland State Fire Marshals Office
	Butts, Chris	Principal	Sompo International
	Buuck, Daniel	Principal	National Association of Home Builders
	Chand, Ramjee	Principal	Ezone Rest Assured
✓	Clary, Shane	Principal	Bay Alarm Company Rep. Automatic Fire Alarm Association, Inc.
✓	Custer, Michael*	Principal	Fort Detrick Fire Department
	Fukuda, Andrew	Principal	Honolulu Fire Department Rep. International Association of Fire Fighters
✓	Garriss, Dwayne	Principal	Synergy Consortium Group, LLC Rep. Fire Equipment Manufacturers' Association
✓	Hall, Kevin	Principal	American Fire Sprinkler Association
✓	Hart, Sarina	Principal	Koffel Associates, Inc.
✓	Hoevelmann, Jason*	Principal	Florissant Valley Fire Protection District
✓	Hopkins, Terin	Principal	National Fire Sprinkler Association
	Jackson, Michael	Principal	Philadelphia Fire Department
✓	Kendzel, James*	Principal	American Supply Association
✓	Laramee, Scott*	Principal	AON Property Risk
	McDonald, Laurent	Principal	Oxford Fire Department
	McLoughlin, James	Principal	Wake County Public School System
✓	Mosberian, Brian	Principal	Phoenix Fire Department
✓	Nicolello, Kelly	Principal	UL Solutions
✓	O'Brian, Michael	Principal	Code Savvy Consultants
✓	O'Brocki, Raymond*	Principal	American Wood Council
✓	Olsen, Brian*	Principal	Phillips 66 Rep. American Petroleum Institute
✓	Palazini, Wade	Principal	JENSEN HUGHES
✓	Pennacchio, Elizabeth	Principal	Code Consultants, Inc.
✓	Santoro, Gary	Principal	Self Employed
✓	Sawyer, Steven	Principal	Rep. New England Association of Fire Marshals
	Schubert, Randy	Principal	Ericsson Rep. Alliance for Telecommunications Industry
✓	Solomon, Robert	Principal	SOCOTEC
✓	Stashak, Catherine	Principal	Office of the Illinois State Fire Marshal
✓	Tyree, Kenneth	Principal	West Virginia State Fire Marshals Office
	Weniger, Christopher	Principal	Hillsborough Township Fire Commission
✓	Arthur, Daniel*	Alternate	Code Consultants Inc.
✓	Branka, Matthew*	Alternate	Jensen Hughes
✓	Denhardt, John	Alternate	American Fire Sprinkler Association
	Hawthorne, Edward	Alternate	DFW Dynamics Rep. American Petroleum Institute
✓	Hugo, Jeffrey*	Alternate	National Fire Sprinkler Association

✓	Johnson, Bruce	Alternate	UL Solutions
	Kimball, Roy	Alternate	Brooks Equipment Company LLC Rep. Fire Equipment Manufacturers' Association
✓	Orlowski, Steven	Alternate	Sundowne Building Code Consultants LLC Rep. National Association of Home Builders
✓	Reiswig, Rodger*	Alternate	Johnson Controls Rep. Automatic Fire Alarm Association, Inc.
	Therrien, Annie	Alternate	SOCOTEC
✓	Sisco, Jen	Staff Liaison	National Fire Protection Association

Guests:

Maria Marks*	Siemens
Bryan Holland*	NEMA
Jonathan Humble	National Multifamily Housing Council
Mark Fesseden	International Fire Suppression Alliance (IFSA)
Jeff Shapiro*	Lake Travis Fire Rescue, rep. Self
Chris Searles	CGS & Associates, Rep. IEEE Energy Storage Systems and Stationary Batteries Committee
Bob Davidson	Davidson Code Concepts
Brandon Heffernan	SDi Fire
Rick Heffernan	SDi Fire
Joe Cain*	Solar Energy Industries Association
Tracy Vecchiarelli*	NFPA
Andrew O'Neil	NFPA
Robby Dawson*	NFPA
Camille Levy	NFPA
Alex Ing	NFPA
Patrick Bakaj	NFPA

*Participated by teleconference
Total number in attendance: 49

Task Group Report – Proposed Action

DOC #	1
TC	Fundamentals of the Fire Code
TG #/NAME	Restructuring
TG CHAIR	Shane Clary
TG MEMBERS	Cathy Stashak, Sarina Hart, Tony Apfelbeck, Jason Hoevelman, Ramjee Chand, Scott Custer

PROPOSED REVISION	Create a First Revision consolidating permit requirements from Table 1.13.8(a) and other locations under a single section in each chapter as show in the task group report.
PROPOSED STATEMENT	Permit requirements were relocated out of Table 1.13.8(a) as directed by the Correlating Committee. Additional permit requirements were identified in other sections and were consolidated under the new Permits sections, as applicable.

Table 1.13.8(a) Permit Requirements

Operations and Materials	Permit Required	Cross Reference Section Number
Amusement parks	~~For construction, alteration, or operation of amusement park fire protection safety features~~	~~10.14.1~~10.1.2
Automatic fire suppression systems	~~For installation, modification, or removal from service of any automatic fire suppression system*~~	13.1.1.1; 50.4.2; ~~1.7.12.6~~1.7.12.8
Carnivals and fairs	~~To conduct a carnival or fair~~	~~10.14.1~~10.1.2
Change of occupancy	~~For the change of occupancy classification of an existing building~~	~~1.7.12.5~~1.7.12.8
Combustible material storage	~~To store more than 2500 ft^3 (70.8 m^3) gross volume~~	~~10.19.2~~10.1.2; 19.1.1; 31.2
Construction	~~For the construction of a building or structure~~	~~1.7.12.2~~1.7.8
Crop maze	~~To operate a crop maze~~	~~10.14.12.1~~10.1.2
Fire alarm and detection systems and related equipment	~~For installation, modification, or removal from service of any fire alarm and detection systems and related equipment*~~	13.1.1.1; ~~1.7.12.6~~1.7.12.8
Fire apparatus access roads	~~For the construction of a fire apparatus access road~~	18.1.2
Fire pumps and related equipment	~~For installation of, modification to, or removal from service of any fire pumps, jockey pumps, controllers, and generators*~~	13.1.1.1; ~~1.7.12.6~~1.7.12.8
In-building emergency responder communications enhancement systems	~~To install and operate an in-building emergency responder communication enhancement system~~	~~11.10.1~~11.1.2

Operations and Materials	Permit Required	Cross Reference Section Number
Means of egress	~~For the modification of a means of egress system in an existing building~~	~~1.7.12.6~~1.7.12.8
Oil- and gas-fueled heating appliances	~~To install oil- and gas-fired heating appliances~~	~~11.5.1.8~~11.1.2
Open fires	~~1. For kindling or maintaining an open fire~~ ~~2. For additional permit requirements for open fires, see 10.10.4†~~	~~10.10.4; 10.10.1~~10.1.2
Open flame devices	~~The use of tar pots, decorative torches, and other devices, machines, or processes liable to start or cause an unwanted fire.~~	~~10.10.9.1~~10.1.2
Parade floats	~~To use a parade float for public performance, presentation, spectacle, entertainment, or parade~~	~~10.17.1~~10.1.2
Photovoltaic systems	~~Installation and placement~~	~~11.12.1.2~~11.1.2
Places of assembly	~~To operate a place of assembly~~	~~10.14.1~~10.1.2; 20.1.1.1
Standpipe systems	~~For installation, modification, or removal from service of any standpipe system*~~	13.1.1.1; ~~1.7.12.6~~1.7.12.8
Special outdoor events	~~For the location and operation of special outdoor events~~	~~10.14.1~~10.1.2
Water supply system for fire flow	~~For the construction of a water supply system for fire flow~~	18.1.2

~~*Maintenance performed in accordance with this *Code* is not considered a modification and does not require a permit.~~

~~†Cooking and recreational fires are exempt and do not require a permit.~~

Chapter 10 General Safety Requirements

10.1 General.

10.1.1 Application.

Every new and existing building or structure shall be constructed…

10.1.2 Permits.

10.1.2 Permits.

Permits required by 10.1.2 shall be in accordance with Section 1.13.

10.1.2.1 Open fires.

10.1.2.1.1

Permits shall be required for the kindling or maintaining of open fires. (*See 10.10.4*)

10.1.2.1.2 [Move from 10.10.1.1]

Permits shall not be required for cooking and recreational fires.

10.1.2.1.3 [Move from 10.10.1.2]

Where burning is conducted on public property or the property of someone other than the permit applicant, the permit applicant shall demonstrate that permission has been obtained by the appropriate government agency, the owner, or the owner's authorized agent.

10.1.2.1.4 [Move from 10.10.1.3]

When limits for atmospheric conditions or hours restrict burning, such limits shall be designated in the permit restrictions.

10.1.2.1.5 [Move from 10.10.1.4]

Instructions or stipulations of permit shall be followed.

10.1.2.2 Open-Flame Devices.

Permits shall be required for the use open-flame devices. (*See 10.10.9*)

A.10.1.2.2

Open-flame devices include tar pots, decorative torches, and other devices, machines or processes liable to start or cause an unwanted fire. **[Move from A.10.10.9.1]** Areas for such use can include inhabited premises or designated campsites that maintain a defensible space in accordance with NFPA 1140.

10.1.2.3 Outdoor Fires.*

Permits shall be required to build, ignite, or maintain outdoors fires in or upon hazardous fire areas.

A.10.1.2.3 [Move from A.10.10.3.1]

Areas for such use can include inhabited premises or designated campsites where such fires are built in a permanent barbecue, portable barbecue, outdoor fireplace, incinerator, or grill.

10.1.2.4 Amusement Parks.

Permits shall be required for the construction, alteration, or operation of amusement park fire protection safety features. (*See Section 10.14*)

10.1.2.5 Carnivals and Fairs.

Permits shall be required to conduct a carnival or fair. (*See Section 10.14*)

10.1.2.6 Places of Assembly.

Permits shall be required to operate a place of assembly. (*See Section 10.14*)

10.1.2.7 Special Outdoor Events.

Permits shall be required for the location and operation of special outdoor events. (*See Section 10.14*)

10.1.2.8 Crop Mazes.

Permits shall be required to operate a crop maze. (*See 10.14.12*)

10.1.2.9 Parade Floats.

Permits shall be required to use a parade float for public performance, presentation, spectacle, entertainment, or parade. (*See Section 10.17*).

10.1.2.10 Storage of Combustible Materials.

Permits shall be required to store more than 2500 ft^3 (70.8 m^3) gross volume of combustible materials. (*See Section 10.19*)

Chapter 11 Building Services

11.1 General.

11.1.1. Application. (Reserved).

11.1.2 Permits.

Permits required by 11.1.2 shall be in accordance with Section 1.13.

11.1.2.1 Oil- and Gas-Fueled Heating Appliances.

Permits shall be required to install oil- and gas-fired heating appliances. *(See 11.5.1.8)*

11.1.2.2 In-Building Emergency Responder Communication Enhancement Systems.

11.1.2.2.1

Permits shall be required to install and operate an in-building emergency responder communication enhancement system. *(See 11.10.1)*

11.1.2.2.1 [Move from 11.10.1.2]

Where required by the AHJ, a renewable permit in accordance with 18.7.7 of NFPA 1225 shall be issued at the conclusion of successful acceptance testing.

11.1.2.3 Photovoltaic Systems.

Permits shall be required for the installation and placement of photovoltaic systems. *(See 11.12.1.2)*

Chapter 18 Fire Department Access and Water Supply

18.1.2 Permits.

Permits~~, where required,~~ required by 18.1.8 shall ~~comply~~ be in accordance with with Section 1.13.

18.1.2.1 Fire Apparatus Access Roads.

Permits shall be required for the construction of a fire apparatus access road.

18.1.2.2 Water Supply System for Fire Flow.

Permits shall be required to for the construction of a water supply system for water flow.

Task Group Report – Proposed Action

DOC #	1
TC	Fundamentals of the Fire Code
TG #/NAME	Photovoltaic
TG CHAIR	Wade Palazini
TG MEMBERS	Steve Orlowski, Cathy Stashak, Dwayne Garriss, Brian Mosberian, Joe Cain* *Non-committee member

PROPOSED REVISION	Create a committee input.

11.12.2.1.6.1 BIPV systems installed as the roof covering shall have markings to identify any areas with electrical hazards hidden from view to avoid ladder placement.

11.12.2.1.6.3 The AHJ shall be permitted to reduce or exempt marking requirements for BIPV systems installed as the roof covering when they are ~~installed in accordance with 690.12(B)(2) of *NFPA 70*~~. listed in accordance with UL 3741.

NOTE TO FUN PV Working Group:

SEE PI No. 216-NFPA 1-2024:

Recommend the following language modification, in lieu of PI No. 216. It covers the update from a reference to 690.12 to a reference to UL 3741, without relocating the language. This modification maintains NFPA style by not using exceptions, and allows the AHJ flexibility on how to enforce.

11.12.3.1.3 The AHJ shall be permitted to reduce or modify roof access for BIPV systems installed as the roof covering when they are listed in accordance with ~~690.12(B)(2) of *NFPA 70*~~ UL 3741.

11.12.3.2.3* Access Pathways.

[Add as new first sentence in A.11.12.3.2.3] It is not the intent of this code to require access pathways on roofs with a pitch of 2 in 12 or less.

11.12.3.2.4 Setbacks at Ridge.

A.11.12.3.2.4 Where the term plan view area is used in this section, it is intended to apply to the entire roof area and not intended to apply to different roof planes separately.
(Consider adding plan view figure of roofs to show concept)

11.12.3.2.4.1

For PV arrays occupying up to 33 percent of the plan view total roof area, a minimum 18 in. (457 mm) setback shall be provided on either side of a horizontal ridge.

11.12.3.2.4.2

For PV arrays occupying more than 33 percent of the plan view total roof area, a minimum of 36 in. (914 mm) setback shall be provided on either side of a horizontal ridge.

11.12.3.2.5 Alternative Setbacks at Ridge.

11.12.3.2.5.1

For one- and two-family dwellings with an automatic sprinkler system installed within the dwelling in accordance with **13.3.2.18**, for PV arrays occupying up to 66 percent of the plan view total roof area, a minimum 18 in. (457 mm) setback shall be provided on either side of a horizontal ridge.

11.12.3.2.5.2

For PV arrays occupying more than 66 percent of the plan view total roof area on sprinklered one- and two-family dwellings, a minimum 36 in. (914 mm) setback shall be provided on either side of a horizontal ridge.

11.12.3.4 ~~Emergency Escape and Rescue Openings.~~ Secondary Means of Escape.

11.12.3.4.1 Where rooftop-mounted PV systems or BIPV systems installed as the roof covering are installed on a roof plane directly below ~~an emergency escape and rescue opening~~ a secondary means of escape, a minimum 36 in. (914 mm) wide access pathway shall be provided to at least one ~~emergency escape and rescue opening~~ secondary means of escape for each sleeping room.

11.12.3.4.2 The AHJ shall be permitted to reduce or exempt access pathways at ~~emergency escape and rescue openings~~ a secondary means of escape for BIPV systems installed as the roof covering when they are listed in accordance with ~~690.12(B)(2) of NFPA 70~~ UL 3741.

Public Comment No. 10-NFPA 1-2025 [Global Input]

All technical committees are instructed to review the use of "fire alarm system" throughout the Code and determine if "fire alarm system" or "signaling system", would be appropriate.

The Technical Committee on Building Systems and Special Occupancies (FCC-OCP) is recommended to consider defining the term "signaling system".

Signaling systems can be installed within protected premises for more than just fire detection. Depending on the occupancy classification and use, the system might provide CO, natural gas, or propane gas detection, or mass notification.

Additional Proposed Changes

File Name	Description	Approved
1_A2026_FCC_AAC_CCN_2.pdf	1_CCNote2	

Statement of Problem and Substantiation for Public Comment

NOTE: The following CC Note No. 2 Appeared in the First Draft Report.

All technical committees are instructed to review the use of "fire alarm system" throughout the Code and determine if "fire alarm system" or "signaling system", would be appropriate.

The Technical Committee on Building Systems and Special Occupancies (FCC-OCP) is recommended to consider defining the term "signaling system".

Signaling systems can be installed within protected premises for more than just fire detection. Depending on the occupancy classification and use, the system might provide CO, natural gas, or propane gas detection, or mass notification.

Related Item

• CC NOTE2

Submitter Information Verification

Submitter Full Name: CC Notes
Organization: Notes
Street Address:
City:
State:
Zip:
Submittal Date: Mon Mar 03 12:47:29 EST 2025
Committee: FCC-FUN

Public Comment No. 11-NFPA 1-2025 [Global Input]

All technical committees are instructed to review the changes to the scope of NFPA 1 in 1.1.1 made by FR-5 and FR-256 to determine if any changes are needed. Direct all comments to the correlating committee.

Additional Proposed Changes

File Name	Description	Approved
1_A2026_FCC_AAC_CCN_3.pdf	1_CC NOTE3	

Statement of Problem and Substantiation for Public Comment

NOTE: The following CC Note No. 3 Appeared in the First Draft Report on First Revision No. 5 and First Revision No. 256.

All technical committees are instructed to review the changes to the scope of NFPA 1 in 1.1.1 made by FR-5 and FR-256 to determine if any changes are needed. Direct all comments to the correlating committee.

Related Item

• FR 5 • FR 256

Submitter Information Verification

Submitter Full Name: CC Notes
Organization: Notes
Street Address:
City:
State:
Zip:
Submittal Date: Mon Mar 03 14:40:28 EST 2025
Committee: FCC-FUN

Public Comment No. 15-NFPA 1-2025 [Global Input]

All technical committees are directed to review the permit required activities in each chapter and if necessary, add heading for each permit required activity for consistency with permit requirements throughout the code.

Additional Proposed Changes

File Name	Description	Approved
1_A2026_FCC_AAC_CCN_14.pdf	1_CC NOTE14	

Statement of Problem and Substantiation for Public Comment

NOTE: The following CC Note No. 14 Appeared in the First Draft Report.

All technical committees are directed to review the permit required activities in each chapter and if necessary, add heading for each permit required activity for consistency with permit requirements throughout the code.

Related Item

• CC NOTE 14

Submitter Information Verification

Submitter Full Name: CC Notes
Organization: Notes
Street Address:
City:
State:
Zip:
Submittal Date: Mon Mar 03 15:12:19 EST 2025
Committee: FCC-FUN

Public Comment No. 18-NFPA 1-2025 [Global Input]

The "*Maintenance performed in accordance with this code is not considered a modification and does not require a permit." table note on T1.13.8(a) in the 2024 edition was not included in related first revisions. Consider if this language is necessary for the indicated permit required activities or provide technical substantiation on why this language was not included.

The FCC-OCP technical committee is directed to review permit requirements in FR-232 for automatic fire suppression systems, fire pumps and related equipment, signaling and detection systems and related equipment, and standpipe systems.

The FCC-HAZ technical committee is directed to review permit requirements in FR-107 for automatic fire suppression systems.

Additional Proposed Changes

File Name	Description	Approved
1_A2026_FCC_AAC_CCN_21.pdf	1_CC NOTE21	

Statement of Problem and Substantiation for Public Comment

NOTE: The following CC Note No. 21 Appeared in the First Draft Report.

The "*Maintenance performed in accordance with this code is not considered a modification and does not require a permit." table note on T1.13.8(a) in the 2024 edition was not included in related first revisions. Consider if this language is necessary for the indicated permit required activities or provide technical substantiation on why this language was not included.

The FCC-OCP technical committee is directed to review permit requirements in FR-232 for automatic fire suppression systems, fire pumps and related equipment, signaling and detection systems and related equipment, and standpipe systems.

The FCC-HAZ technical committee is directed to review permit requirements in FR-107 for automatic fire suppression systems.

Related Item

• CC NOTE 21

Submitter Information Verification

Submitter Full Name: CC Notes
Organization: Notes
Street Address:
City:
State:
Zip:
Submittal Date: Mon Mar 03 15:21:06 EST 2025
Committee: FCC-FUN

Public Comment No. 24-NFPA 1-2025 [Global Input]

All technical committees are directed to review this new definition and confirm that uses of the term "balcony" are consistent with this definition.

The term balcony is used in many locations within NFPA 1 and all instances to the term should be reviewed by the relevant technical committee to confirm the usage of the term aligns with this new definition.

Additional Proposed Changes

File Name	Description	Approved
1_A2026_FCC_AAC_CCN_6.pdf	1_CC NOTE6	

Statement of Problem and Substantiation for Public Comment

NOTE: The following CC Note No. Appeared in the First Draft Report on First Revisions No. 12.

All technical committees are directed to review this new definition and confirm that uses of the term "balcony" are consistent with this definition.

The term balcony is used in many locations within NFPA 1 and all instances to the term should be reviewed by the relevant technical committee to confirm the usage of the term aligns with this new definition.

Related Item

• FR 12

Submitter Information Verification

Submitter Full Name: CC Notes
Organization: Notes
Street Address:
City:
State:
Zip:
Submittal Date: Tue Mar 04 07:38:23 EST 2025
Committee: FCC-FUN

Public Comment No. 64-NFPA 1-2025 [Global Input]

Annex D Firefighter Breathing Air Replenishment Systems

This annex is not part of the requirements of this NFPA document unless specifically adopted by the by the jurisdiction.

D.1 General.

Where required by the AHJ, firefighter breathing air replenishment systems shall comply with Appendix F of the *Uniform Plumbing Code*.

D.2 Permit.

D.2.1

A permit shall be required for the installation of a firefighter breathing air replenishment system.

D.2.2

The permit shall comply with Section 1.13

Statement of Problem and Substantiation for Public Comment

Removing Annex D from NFPA 1 would eliminate the essential reference to the Uniform Plumbing Code for jurisdictions that wish to install and enforce firefighter air systems. Currently, there is no other reference in NFPA 1 that provides guidance on the installation of these systems, making it crucial that this Annex text be reinstated in the standard.

Firefighter air systems have been in use since the 1990s, but the rules governing their installation and maintenance have been inconsistent and limited. The industry surrounding this technology has recognized these gaps and is committed to developing comprehensive guidelines for the installation, maintenance, and enforcement of these systems. Therefore, through this proposal, we request the FCC-FUN to establish a task group to research and develop appropriate standards for firefighter air systems, with the goal of incorporating these rules into the 2030 edition of NFPA 1. This effort will help ensure that firefighter air systems are properly regulated and consistently applied across jurisdictions.

Related Item

• FR271

Submitter Information Verification

Submitter Full Name: Shane Ray
Organization: Pleasant View Fire Department
Affiliation: PVVFD
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 23 15:08:47 EDT 2025
Committee: FCC-FUN

Public Comment No. 68-NFPA 1-2025 [Global Input]

Annex D — Firefighter Breathing-Air Replenishment Systems

This annex is not a part of the requirements of this NFPA document unless specifically adopted by the jurisdiction.

D.1 General.

Where required by the AHJ, firefighter breathing-air replenishment systems shall comply with Appendix F of the Uniform Plumbing Code.

D.2 Permit.

D.2.1

A permit shall be required for the installation of a firefighter breathing-air replenishment system.

D.2.2

The permit shall comply with Section 1.13.

Additional Proposed Changes

File Name	Description	Approved
JASON_BURLEY_-_JOHNSON_CONTROLS_-_NFPA1_OPEN_COMMENTS_LETTER_ASSOCITED_LETTERS.docx	Jason Burley - Johnson Controls NFPA 1 Open Comments Letter	
JOHNSON_CONTROLS_FARS_ANSI-NFPA_PATENT_COMPLIANCE_POLICY_-_NFPA1_OPEN_COMMENTS_LETTER.pdf	Johnson Controls FARS ANSI-NFPA Patent Compliance Policy Letter	
COST_OF_FARS_-_NFPA1_OPEN_COMMENTS_LETTER_1_.pdf	Johnson Controls FARS Cost Of FARS To Total Construction Budget Case Study NFPA 1 Open Comments Letter	

DOMINIC_BOSCO_-_VICE_PRESIDENT_OF_SHAMBAUGH_SON_WEST_COAST_OPERATIONS_GROUP_-_NFPA1_OPEN_COMMENTS_LETTER.pdf	Dominic Bosco, Vice President of Shambaugh & Son, West Coast Operations NFPA 1 Open Comments Letter
BRAD_MACMILLAN_-_PRESIDENT_OF_NORTHSTAR_FIRE_AND_ALARM_-_NFPA1_OPEN_COMMENTS_LETTER.docx	Brad MacMillin, President of Northstar Fire and Alarm - NFPA 1 Open Comments Letter
JOSEPH_DEPRIEST_-_PRESIDENT_OF_WESTERN_STATES_FIRE_PROTECTION_-_NFPA1_OPEN_COMMENTS_LETTER.docx	Joseph DePriest, President of Western States Fire Protection - NFPA 1 Open Comments Letter
MIKE_AMDAHL_-_PRESIDENT_OF_OLYMPIC_WEST_FIRE_PROTECTION_LLC_-_NFPA1_OPEN_COMMENTS_LETTER.pdf	Mike Amdahl, President of Olympic West Fire Protection - NFPA 1 Open Comments Letter
DOUG_JOGNSON_-_VICE_PRESIDENT_OF_FIRE_ENGINEERING_COMPANY_-_NFPA1_OPEN_COMMENTS_LETTER.pdf	Doug Johnson, Vice President of Fire Engineering Company - NFPA 1 Open Comments Letter
ZACK_SANCHEZ_-_VICE_PRESIDENT_OF_TDINDUSTRIES_-_NFPA1_OPEN_COMMENTS_LETTER.pdf	Zack Sanchez, Vice President of TDIndustries - NFPA 1 Open Comment

	Letter
MICHAEL_WOODS_-_PRESIDENT_OF_JARRETT_FIRE_PROTECTION_-_NFPA1_OPEN_COMMENTS_LETTER.pdf	Michael Woods, President of Jarrett Fire Protection - NFPA 1 Open Comments Letter
ANTHONY_ABBRUZZIO_-_EXECUTIVE_VICE_PRESIDENT_OF_RKS_PLUMBING_MECHANICAL_INC_-_NFPA1_OPEN_COMMENTS_LETTER.pdf	Anthony Abbruzzio, Executive Vice President of RKS Plumbing, Mechanical & Fire Inc. - NFPA 1 Open Comments Letter

Statement of Problem and Substantiation for Public Comment

By retaining Annex D, NFPA 1 can provide clear guidelines and support for cities and jurisdictions that choose to implement FARS. Without these guidelines, the application, design, installation, inspection, maintenance, and operation will be inconsistent and complicated by not having a standard to these systems. This is response to Global input FR-271 made during first draft.

Related Item

• FR-271-NFPA 1 - 2024

Submitter Information Verification

Submitter Full Name: Jason Burley
Organization: Johnson Controls
Street Address:
City:
State:
Zip:
Submittal Date: Thu Apr 24 15:56:10 EDT 2025
Committee: FCC-FUN

Public Comment – Reinstatement of Annex D to NFPA 1

Annex D Firefighter Breathing-Air Replenishment Systems

This annex is not a part of the requirements of this NFPA document unless specifically adopted by the jurisdiction.

D.1 General

Where required by the AJH, firefighter breathing-air replenishment systems shall comply with Appendix F of the Uniform Plumbing code.

D.2 Permit

D.2.1

A permit shall be required for the installation of a firefighter breathing-air replenishment system.

D.2.2

The permit shall comply with Section 1.13.

Rationale

Firefighter breathing-air replenishment systems have been available since the 1980's, and have been referenced in the Unform Plumbing Code since 2006, the International Fire Code since 2015? and NFPA 1 since 2018. During the public input phase of the current revision cycle of NFPA 1, concerns were raised about these systems and the committee voted to delete Annex D. This public comment is to reinstate Annex D.

With regards to the committee's concerns, the following information is offered to substantiate the reinstatement of Annex D:

1) **Re: Concern with ANSI/NFPA patent policy.** The inclusion of information pertaining to firefighter breathing-air replenishment systems is consistent with the ANSI/NFPA patent policy.
    - The decision on whether to include certain technology in an NFPA standard is based on technical reasons. Nothing under the ANSI/NFPA Patent Policy limits standards to non-proprietary technologies.
    - NFPA is not required to identify standard essential patents, but if it receives notice that a standard requires the use of an essential patent claim, NFPA is required to follow the procedure outlined in the Patent Policy.

- Participants in the standards development process are not required to identify standard essential patent claims but are encouraged to bring any such patents to the attention of NFPA.
- NFPA 1 Annex F relating to firefighter breathing-air replenishment systems (presently Annex D) was adopted in 2018. At that time, Johnson Controls would not have known anything more about firefighter breathing-air replenishment systems than the general public. Annex F was adopted by consensus, with the entire committee and public had the opportunity to comment. Ultimately, it was adopted by vote of the entire committee.
- Any entity that identifies a Johnson Controls patent claim that is essential to NFPA 1 Annex D, or believes a license to such patent is needed, can contact NFPA or Johnson Controls.

2) **Re: Substantiation for the need of FARS.** Firefighter breathing-air replenishment systems have been commercially available since the late 1980's. Increased construction of mid and high rise buildings increase the difficulty of first responders in addressing fires in these structures. Firefighter breathing-air replenishment systems were developed to provide a continuous air supply to reduce the risk of firefighters running out of air. The continued use of air supply, rather than breathing smoke-filled air, helps minimize firefighters inhaling harmful smoke. Firefighter breathing-air replenishment systems enhance search and rescue operations: eliminating the need for a bottle brigade, which enables more firefighters to concentrate on rescuing occupants. Firefighter breathing-air replenishment systems streamline firefighting operations, enabling firefighters to focus on extinguishing fires and reducing overall damage to the structure.
Firefighter breathing-air replenishment systems are required in more than 100 jurisdictions across the United States.

3) **Re: Data related to reliability and air quality of the FARS systems**
An independent analysis by Trace Analytics LLC compared FARS and non-FARS compressed breathing air samples using NFPA 1989 air quality metrics. Samples for the analysis covered the time period from January 2013 through December 31, 2019. Based on these samples, Trace Analytics concludes:

- FARS air samples met NFPA 1989 compliance standards more often than non-FARS compressed breathing air samples.
    - FARS samples complied with NFPA 1989 standards 97% of the time (6,675/6,859 samples), versus 96% for non-FARS compressed breathing air samples.

- Conversely, FARS samples were non-compliant only 2.7% of the time, versus 3.95% for non-FARS compressed breathing air samples.
    - For almost all analytes tested, FARS failure rates were less than failure rates of non-FARS compressed breathing air samples.
    - The most common failures in compressed breathing air -- water vapor and carbon dioxide-- were less likely to be detected in the FARS samples.
    - The most common failure detected in FARS samples -- oxygen/nitrogen imbalances -occurred most likely as a result of new filter cartridge installations combined with an inadequate running of the compressor to normalize air in the system.

  Overall, FARS air samples were at least as safe and more compliant with NFPA 1989 air quality standards than non-FARS compressed breathing air samples. The Trace Analytics report in its entirety has been submitted as part of this public input.

4) **Re: Requirements for testing and maintenance of the FARS systems.** The System Acceptance and Certification requirements of Appendix F of the Uniform Plumbing Code specifies that each firefighter breathing-air replenishment system be subjected to a static pressure test, low-pressure switch test, compatibility check, material certification, air sampling, air quality analysis and final proof test. Appendix F also specifies that the air sampling test be conducted annually. Appendix L of the International Fire Code also specifies requirements for firefighter breathing-air replenishment systems. These requirements are consistent with those of the Uniform Plumbing Code. However, Appendix L of the International Fire Code r that firefighter breathing-air replenishment system be continually maintained and be inspected not less than annually and air sampling testing conducted not less than quarterly. All air sampling test results must be in compliance with NFPA 1989.

   Respectfully,

Jason Burley
Global Director, Johnson Controls FARS
Johnson Controls – Building Technologies & Life Safety Solutions
Mobile: +1 818.212.3912
Jason.Burley@jci.com

Tyco Fire Products LP
1467 Elmwood Avenue
Cranston, Rhode Island 02910
.

April 24, 2025

To the attention of the NFPA1 Technical Committee
RE: Johnson Controls FARS compliance

I am writing to provide Johnson Controls' position on the ANSI/NFPA Patent Policy as it pertains to the inclusion of Firefighter Air Replenishment Systems (FARS) in NFPA 1 Annex F.

Johnson Controls complies with the ANSI/NFPA Patent Policy. Any argument that we are in violation of the policy is a misreading of what that policy requires.

- The decision on whether to include certain technology in an NFPA standard to is based on technical reasons. Nothing under the ANSI/NFPA Patent Policy limits standards to non-proprietary technology.
- NFPA is not required to identify standard essential patents, but if it receives notice that a standard requires the use of an essential patent claim, NFPA is required to follow the procedure outlined in their Patent Policy.
- Participants in the standards development process are not required to identify standard essential patent claims but are encouraged to bring any such patents to the attention of NFPA.
- NFPA 1 Annex F relating to FARS (now Annex D) was adopted in 2018. At that time, Johnson Controls would not have known anything more about FARS than the general public. Annex F was adopted by consensus, with the entire committee and public having the opportunity to comment. Ultimately, it was adopted by vote of the entire committee.

To the extent that anyone can identify a JCI patent claim that is essential to NFPA 1 Annex D, or believes they need a license to such patent, they can reach out to NFPA or to Timothy Olson at Johnson Controls (timothy.j.olson@jci.com). Not a single equipment developer has requested a license from Johnson Controls to patents they consider essential to NFPA 1 Annex D, let alone being denied such a license. In fact, JCI's FARS technology is available for license to an increasing number of companies in the markets we serve through our certified installer program.

The reality is that we are pioneering this technology to serve a vital purpose in firefighter safety.

The fact that Johnson Controls has taken a leadership position in pioneering FARS systems and has made significant investments in the advancement of FARS technology does not mean that jurisdictions should refuse to adopt or rescind FARS until other companies decide to get into this market. Other companies can invest in their own solutions, but we are unaware of any that have stepped up to do that in North America.
.

Yours sincerely,

Jason Burley

Jason Burley
Global Director, Johnson Controls FARS
Johnson Controls – Building Technologies & Life Safety Solutions
Mobile: +1 818.212.3912
Jason.Burley@jci.com

Tyco Fire Products LP
1467 Elmwood Avenue
Cranston, RI 02910

April 24, 2025

RE: Cost of FARS

NFPA 1 Committee Members,

As you are preparing to vote on the future of NFPA 1 Annex D, I am writing to provide pertinent information related to the cost of installing a Firefighter Air Replenishment System (FARS).

Overview of Firefighter Air Replenishment Systems (FARS) Installation Costs
Firefighter Air Replenishment Systems (FARS) installations are inherently unique. They are tailored to meet the specific requirements of individual buildings and the jurisdictions in which they reside. As a result, installation costs can vary across projects.

In an analysis conducted by Johnson Controls (JCI), which manufactures FARS, total FARS material and labor costs, as well as total project costs were reviewed for nine FARS projects completed between 2022 and 2024. These installations spanned jurisdictions in five U.S. states and were installed by Johnson Controls FARS Certified Installers, which are third-party contractors who are certified and licensed by JCI to install its FARS solutions. Based on this analysis, JCI estimates the cost of a FARS installation to represent approximately 0.50% to 1.85% of the total building cost, with the median installation cost for the reviewed projects falling below 1% of the overall construction cost.

The variability in cost can be influenced by multiple factors, including:

1. **Building Size and Design Complexity**:
   As the size of a building increases, associated total material costs—such as those for stainless steel—can be expected to rise, along with labor costs to install those additional materials. Additionally, intricate or complex design features can result in increased labor costs.

2. **Number of Stairwells Equipped with FARS**:
   FARS installations include emergency refill panels situated every two to three floors within stairwells. While there are fixed costs associated with installing a FARS system, each stairwell equipped with FARS represents both material and labor costs.

3. **New Construction Versus Repurposing Existing Sites**:
   The cost of a FARS installation as a percentage of total construction expenses can differ between new constructions and the repurposing of existing sites. When adapting an existing structure, pre-existing infrastructure may reduce overall construction costs, which in turn elevates the percentage that FARS represents of the total cost. Furthermore, retrofitting a FARS into an existing framework may necessitate additional labor to accommodate the system.

4. **Prevailing Labor Rates and Competitive Bidding**:
   Labor rates can fluctuate based on geographic location and market conditions. Factors such as union versus non-union labor and individual contractor business models also play a role. Given that FARS installations require skilled labor with specific certifications and licenses, this need for expertise can

Tyco Fire Products LP
1467 Elmwood Avenue
Cranston, RI 02910

contribute to higher installation costs. Moreover, engaging multiple contractors in a bidding process can foster competition, potentially influencing final pricing.

5. **Jurisdictional Code Requirements**:
   Local jurisdictions that adopt FARS codes can establish distinct requirements governing the installation of these systems. Consequently, identical buildings with FARS in jurisdictions with varying code requirements may incur different costs. Prior to adopting a code, jurisdictions are encouraged to collaborate with FARS experts to analyze historical data on system installations to accurately estimate costs for prevalent construction types within their areas.

Thank you for your attention on this matter.

Jason Burley
Global Direct, Johnson Controls FARS
Johnson Controls – Building Technologies & Life Safety Solutions
Mobile: + 1 818.212.3912
Jason.Burley@jci.com

SHAMBAUGH & SON, L.P.
CONTRACTORS – ENGINEERS
SINCE 1926

To the NFPA 1 Technical Committee Members,

Please accept this letter in support of retaining NFPA 1 Annex D on FARS, the Firefighter Air Replenishment System.

As a complete fire protection and life safety company, to include being a certified installer of the FARS systems. Shambaugh & Son believes it is vital to public safety in areas where growth and development is challenging the resources of local fire departments and making firefighting in large structures more difficult because of the logistics of providing air resupply.

FARS is a game-changer for life safety. The only other way to reliably provide air resupply to firefighters in large buildings is to carry it in by hand -- up numerous flights of stairs in a high-rise. Have you ever worn and carried 60+ pounds of gear up 5 flights of stairs? FARS ease that burden to the benefit of firefighters, building occupants, and building owners.

Without Annex D, jurisdictions and the building community will not have clear guidelines for FARS, and standards will vary from city to city. That complicates operations for firefighting, especially mutual aid, as well as for building design and construction and system installation and maintenance.

If there are concerns with how Annex D reads, I ask that the committee take the necessary steps to improve it. Deleting this annex seems to be an extreme measure that is not justified by the safety benefits and growing acceptance of FARS.

Sincerely,

Dominic Bosco

Dominic Bosco
Vice President
Shambaugh & Son

NORTHSTAR FIRE & ALARM
A DIVISION OF SHAMBAUGH & SON, L.P.

To the NFPA 1 Technical Committee Members,

Please accept this letter in support of retaining NFPA 1 Annex D on FARS, the Firefighter Air Replenishment System.

As a complete fire protection and life safety company, to include being a certified installer of the FARS systems. I believe it is vital to public safety in areas where growth and development is challenging the resources of local fire departments and making firefighting in large structures more difficult because of the logistics of providing air resupply.

FARS is a game-changer for life safety. The only other way to reliably provide air resupply to firefighters in large buildings is to carry it in by hand -- up numerous flights of stairs in a high-rise. Have you ever worn and carried 60+ pounds of gear up 5 flights of stairs? FARS ease that burden to the benefit of firefighters, building occupants, and building owners.

Without Annex D, jurisdictions and the building community will not have clear guidelines for FARS, and standards will vary from city to city. That complicates operations for firefighting, especially mutual aid, as well as for building design and construction and system installation and maintenance.

If there are concerns with how Annex D reads, I ask that the committee take the necessary steps to improve it. Deleting this annex seems to be an extreme measure that is not justified by the safety benefits and growing acceptance of FARS.

Sincerely,

Brad MacMillan
President
Northstar Fire and Alarm

Western States Fire Protection Co.
Protecting Lives and Property

To the NFPA 1 Technical Committee,

This letter is in support of retaining NFPA 1 Annex D on Firefighter Air Replenishment Systems (FARS).

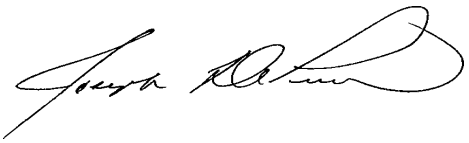
As a fire protection and life safety company, that is certified to install, inspect and maintain Firefighter Air Replenishment Systems (FARS), this concept is leading edge technology that will be a valuable resource for the future of fire and life safety.

I see the benefit of FARS working in tandem with other safety systems in large buildings. Together, they enhance overall safety for firefighters and occupants. FARS can ensure that firefighters have the necessary resources to perform their duties safely and efficiently.

By retaining Annex D, NFPA 1 can provide clear guidelines and support for cities and jurisdictions that choose to implement FARS. Without these guidelines, the application, design, installation, inspection, maintenance, and operation will be inconsistent and complicated by not having a standard to these systems.

I suggest that the Committee retain FARS in Appendix D and make any relevant changes to improve it. I think that deleting it would be a step backwards for the industry.

Sincerely,



Joseph DePriest
President
Western States Fire Protection

LYMPIC WEST
FIRE PROTECTION
LLC

1830 W. University Dr.
Tempe, Arizona 85282

AZ ROC095830 C-16 ● AZ ROC 21441 C-16 ● CO Bldg D-7A (FSC)-A 18709 ● NV C-41-A 0042155
WA 603 559 999 ● IA FES 0837 ● UT 7407077 5501 ● TX SCR G 2212628 ● OK AC244396 ● OH 53 89 1895

To: NFPA 1 Technical Committee

Re: Support for Retaining NFPA 1 Annex D on Firefighter Air Replenishment Systems (FARS)

To whom it may concern,

I understand your committee is considering deleting NFPA-1 Annex D for Firefighter Air Replenishment Systems (FARS). I am writing in opposition to this action based on my experience as a FARS certified

As a full-service fire protection and life safety contractor over the past 39 years. The Olympic West Fire Protection team takes great pride in making buildings safer. Our mission for our customers is simple yet comprehensive: Do all we can to keep safe what you consider most important, including lives, property and peace of mind. We're committed to being a fire suppression industry leader in the fields of both technology and client relations. We install many types of life safety systems, and FARS is one of the most impressive leaps forward in building safety I have seen. In the right building types, FARS offers a cumulative benefit when installed alongside other safety systems. FARS enhances overall safety for firefighters and ensures that they have the necessary resources to perform their duties effectively.

FARS belongs in NFPA-1. Removing Annex D seems contrary to the NFPA organization's task to improve life safety. We need clear guidelines and support for jurisdictions that choose to implement FARS to ensure consistency and effectiveness in their application.

I implore the committee to keep Annex D in NFPA-1 to ensure the continued safety and efficiency of firefighting operations. Thank you for considering my opinion.

Sincerely,
Mike Amdahl
President
Olympic West Fire Protection LLC
Mike.amdahl@olympicwestfire.com

Dear the NFPA 1 Technical Committee Members,

Allow me to introduce myself and my company. I am Doug Johnson, Vice President, of Fire Engineering Company, Inc. We are a full-service fire and life safety company that goes back to 1947. Throughout our 78 years, we have made it our mission to protect life and property. In our long and distinguished history, with a vast range of projects. We have designed, fabricated and installed over 10,000 different fire and life safety systems. In addition, we are a FARS certified installation contractor to include post project commissioning inspections and services for FARS.

Like many of my peers in the FARS industry, I see great value in the inclusion of FARS in NFPA 1 and I am respectfully writing to urge the committee to retain Annex D.

Annex D, like the other NFPA standards, improves life safety and ensures standardization in building systems, two critical reasons organizations like yours exist. Without Annex D, consistency of FARS installations will be considerably weakened, and the void it will leave will have a negative impact on the safety of firefighters -- the end users of this system -- as well as on the citizens they protect.

My team is very proud of the work we do to make buildings safer. It is our business, but it is also our mission. We depend on organizations like yours to support our mission the same way we support yours. Our 300+ codes and standards are informed by rapidly changing industry needs and ever-evolving technologies, and are supported by scientific research, development, and practical experience from subject matter experts.

Buildings are getting taller, bigger, wider, and more complicated. FARS code adoptions are increasing across the U.S. This is not the time for the committee to shirk its duty or turn away from a meaningful standard for FARS.

Please consider the long-term negative impacts of this proposed action, and look for alternatives. If the language in Appendix D is concerning, I respectfully suggest that the committee work on revising it rather than removing it.

Thank you for your attention.

Sincerely,

Douglas Johnson
Vice President
Fire Engineering Company

TDIndustries

At the Heart of Your Building

April 18, 2025

Dear NFPA 1 Technical Committee Members,

As a certified installer of Firefighter Air Replenishment Systems, I was surprised to learn that the NFPA 1 Technical Committee is considering removing Annex D on Firefighter Air Replenishment Systems (FARS). In the last 10 plus years that TDIndustries has been installing these systems, we continue to be impressed by their design, functionality and overall contribution to a total building safety program. I'm writing to ask this committee to continue to include FARS in NFPA 1 by retaining the annex.

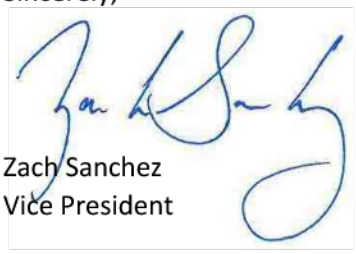
FARS brings many enhancements to life safety. They are no less important than water standpipes for firefighting in large buildings. Getting air resupply in these buildings without an air standpipe is incredibly challenging. FARS gives firefighters an essential resource to do their jobs safely.

Because they are a critical firefighter safety system, there is no place more appropriate for FARS to be included than in NFPA, where the focus on standardization of life safety measures guides specifications for these types of systems. Removing Annex D would negatively impact standardization, weakening consistency and effectiveness in the application of FARS. It would also make it harder for companies like TDIndustries to do their job.

Every year, we see more municipalities and fire departments requiring FARS. This reflects the growing recognition of its importance as cities approve projects that are larger and taller than ever. It has never been more important for the NFPA to take the lead on supporting FARS technology. Deleting Annex D seems a step backward to supporting this critical, life-saving initiative. Please consider retaining Annex D.

Thank you for considering this public comment.

Sincerely,



Zach Sanchez
Vice President

13850 Diplomat Drive
Dallas, Texas 75234
t. 972 888 9500
f. 972 888 9507
tdindustries.com

April 17, 2025

Dear NFPA 1 Technical Committee,

Our company, Jarrett Fire Protection, offers a full range of services to meet the fire & life safety needs, including sprinkler systems, FARS (firefighter air replenishment system), fire alarm, special hazard suppression systems and their respective services. The Jarrett Fire Protection team is dedicated to proving reliable, code-complaint solutions for every project.

I am writing to urge the NFPA 1 Technical Committee to retain Annex D, which covers FARS, which I understand is at risk of being deleted. Frankly, I was shocked to learn the committee was considering removing the annex and can't imagine any fact-based argument justifying this action.

My company works with numerous life safety systems, and FARS is one of the most impressive technologies I have seen. Codes and standards exist to make sure all building-installed systems function as designed, are safe to use, and are consistent from jurisdiction to jurisdiction. Eliminating Annex D would have a profoundly negative effect on the functionality and safety of these systems,
FARS belongs in NFPA 1. The Uniform Plumbing Code is not the logical place where contractors like me will look for FARS requirements. Respectfully, I expect your organization to be future-focused and driven by safety and standardization. Annex D is a great example of that. It needs to be retained.
Thank you for your consideration on this issue. Please keep Annex D in NFPA 1.

Sincerely,

Michael Wood
President of Jarrett Fire Protection
Jarrett Fire Protection

1106 Lebanon Pike, Nashville, Tennessee 37210
Phone (615) 515-1270 / Fax (615) 515-1271

RKS PLUMBING & MECHANICAL, INC.
23659 N. 35TH Dr. Glendale, Arizona 85310
Commercial Plumbing License #096652 L-37
Commercial Mechanical License #206709 CR-39
Office – (602) 996-1866
Fax – (602) 996-1816

To the NFPA 1 Technical Committee,

Subject: Support for Retaining NFPA1 Annex D on Firefighter Air Replenishment Systems (FARS)

I am writing in support of Firefighter Air Replenishment Systems (FARS) and to express my concern about a proposed action by your committee to delete NFPA-1 Annex D. Our company, RKS Mechanical was founded 35 years ago on solid values, beliefs and practices. Our company has been a proud certified installer and inspections provider of FARS for close to 10 years.

FARS are specifically designed for use during large-scale fire events in large buildings, making NFPA-1 the right place for it to be. Our industry expects the NFPA to take the lead in improving safety and standardization for systems related to addressing fires, and removing Annex D will do the opposite. I cannot imagine your rationale behind such a move.

I have experience with numerous life safety systems. FARS is among the best-designed, most-needed systems for building safety.

The NFPA can and should provide clear guidelines and support for cities that choose to require FARS. Annex D does this. The uniformity it provides benefits the architectural and construction industry, installers like me, and the firefighters who will use FARS.

Please keep Annex D in NFPA-1.

Thank you for your attention on this matter. Should you have any questions, feel free to contact me.

Sincerely,

Anthony Abbruzzio
Executive Vice President
RKS Plumbing & Mechanical, Inc.

Public Comment No. 38-NFPA 1-2025 [New Section after 1.7.14]

TITLE OF NEW CONTENT

1.7.14.2* Temporary Certificate of Occupancy.

At the discretion of the authority having jurisdiction, a temporary certificate of occupancy, TCO, shall be permitted to be issued for a building or portion of a building before the completion of the work covered by the permit.

Statement of Problem and Substantiation for Public Comment

This public comment is submitted on behalf of a Task Group that was appointed in June 2024 to address temporary use conditions in buildings that were not yet issued a permanent certificate of occupancy (CoO). The task group consists of:

Anthony Apfelbeck-Altamonte Springs Building and Fire Safety Department
Ken Bush-Maryland State fire marshal's office
Bruce Johnson-UL Solutions
Steven Sawyer-New England Association of Fire Marshals
Robert Solomon-SLS Consulting/SOCOTEC

The essence of the comment is to provide guidance to AHJ's that would allow some level of flexibility for portions, or in some cases the entire building to be occupied before every fire protection and life safety feature has been fully accepted to show compliance with the approved plans and the CoO was issued. The proposed language gives leeway to the AHJ to allow tenant and occupant move-in before the final certificate of occupancy is issued. The necessary guidance is included in an annex note that lists the different factors that should be considered prior to making the decision. It also points out the need to coordinate any such temporary accommodation with other AHJ's including but not limited to the building official.

The revised language is necessary as at present, the code offers no guidance or direction concerning move-in options as the project approaches its final completion stage. Since every case and circumstance is different, the task group considered but did not include a specific timeframe for how long the TCO should be valid for. This is part of the evaluation and decision process that can be made for each request.

See the related Public Comment for Section 1.7.14.1.

Related Item

• CI 9 and PI 63

Submitter Information Verification

Submitter Full Name: Robert Solomon
Organization: SLS CONSULTING/SOCOTEC
Street Address:
City:
State:
Zip:
Submittal Date: Fri Apr 18 12:57:55 EDT 2025
Committee: FCC-FUN

Public Comment No. 40-NFPA 1-2025 [New Section after 1.7.14]

TITLE OF NEW CONTENT

1.7.14.1 Use and Occupancy Prior to Final Inspection

1.7.14.1.1 New buildings or new portions of a building constructed shall not be occupied or utilized prior to approval by the AHJ except as permitted by 1.7.14.2.

1.7.14.1.2 Use of newly installed process equipment, regulated under this code, shall not occur prior to approval by the AHJ.

Statement of Problem and Substantiation for Public Comment

This public comment is submitted on behalf of a Task Group that was appointed in June 2024 to address temporary use conditions in buildings that were not yet
issued a permanent certificate of occupancy (CoO). The task group consists of:

Anthony Apfelbeck-Altamonte Springs Building and Fire Safety Department
Ken Bush-Maryland State fire marshal's office
Bruce Johnson-UL Solutions
Steven Sawyer-New England Association of Fire Marshals
Robert Solomon-SLS Consulting/SOCOTEC

The code does not adequately address temporary use prior to full occupancy. New language is proposed for 1.7.14.2 to address temporary occupancy considerations for new construction as well as alterations, reconstruction, change of use, and existing buildings; requirements in the building code for certificate of occupancy, correlation with 4.5.4, and creation of an annex note for clarity on what criteria an AHJ should consider when permitting temporary use prior to occupancy. This language coupled with the information offered in Section 1.7.14.2 will ensure the AHJ has the authority to prohibit occupancy prior to AHJ approval and/or prohibit the use of newly installed equipment prior to AHJ approval.

See the related Public Comment for Section 1.7.14.2.

Related Item

• CI 9 AND PI 63

Submitter Information Verification

Submitter Full Name: Robert Solomon
Organization: SLS CONSULTING/SOCOTEC
Street Address:
City:
State:
Zip:
Submittal Date: Fri Apr 18 13:20:54 EDT 2025
Committee: FCC-FUN

Public Comment No. 5-NFPA 1-2025 [New Section after 1.7.17.3]

Add a new 1.7.18 and renumber as follows:

1.7.18 Fire Watch Signage. When a building is placed under a fire watch, the AHJ shall be authorized to require signage at the entrances to the building to notify occupants that the building is under fire watch and the reason for the fire watch.

1.7.18.1 The locations and wording of the signage shall be at the discretion of the AHJ.

1.7.18.2 The size of the lettering on the sign shall be determined by the AHJ but shall be at least 1/2" high.

A.1.7.18.1 The actual content of the signage should be determined based on the hazard, actual fire safety events, expectation of the actions by the occupants and if evactuation is required. One example of signage content could be:

Attention Occupants

Fire Watch in Progress

The (Fire Sprinkler System, Fire Alarm System) in this building is out of service.

On-duty personnel are conducing a continuous tour of common ares to provide for early detection and notification of fires.

Please be alert to evidence of smoke or fire.

Call 911 immediately if fire or smoke is observed.

Evacuate the building immediately upon hearing an alarm, alert or other order to do so.

Statement of Problem and Substantiation for Public Comment

This PC is in response to PI 139. In resolving PI 139, the TC stated that the proposed location for for this text was more appropriate to Section 1.7. This PC addresses that concern. The TC also asked that a minimum letter size be specified. This PC addresses that concern. The TC's concern regarding coordination of the actual fire safety events and need for evacuation have now been included in the annex text. All of the TC's concerns on PI 139 have now been addressed in this PC.

Related Item

• PI 139

Submitter Information Verification

Submitter Full Name: Anthony Apfelbeck
Organization: Altamonte Springs Building and Fire Safety Department
Street Address:
City:
State:
Zip:
Submittal Date: Mon Feb 10 14:14:49 EST 2025
Committee: FCC-FUN

Public Comment No. 59-NFPA 1-2025 [New Section after 3.3.129]

Firefighter Air Replenishment System (FARS). A permanently installed, high-pressure air system that provides firefighters with a location to refill their Self-Contained Breathing Apparatus (SCBA) during emergency operations in large or complex structures.

New Annex

A Firefighter Air Replenishment System (FARS) allows firefighters to quickly refill their Self-Contained Breathing Apparatus (SCBA) without having to break the seal on their mask until they exit the building and decontaminate, improving safety and operational efficiency. A fixed piping network delivers air from mobile or on-site storage to fill stations located throughout a building. These systems should be regularly inspected, tested, and maintained to assure the air quality meet jurisdictional and NFPA 1989 air quality standards.

Statement of Problem and Substantiation for Public Comment

The proposed definition for Firefighter Air Replenishment System (FARS) establishes a clear and standardized understanding of a permanently installed, high-pressure air system designed to allow firefighters to refill their Self-Contained Breathing Apparatus (SCBA) during emergency operations in large or complex structures. FARS enhance firefighter safety and operational efficiency by eliminating the need to manually transport air cylinders to upper floors or remote areas, which is especially critical in high-rise buildings, tunnels, airports, and other expansive occupancies. Including this definition in NFPA 1 supports consistent terminology among AHJs, designers, and emergency responders, and reflects the growing adoption of FARS technology as a reliable life safety system in modern building design.

Including this annex to the definition helps establish consistent terminology and promotes awareness of system functionality and performance expectations. It also reinforces the importance of regular inspection, testing, and maintenance to ensure compliance with jurisdictional requirements and NFPA 1989 air quality standards, supporting reliable system operation and firefighter health.

Related Item

• PI 257 • PI 258 • FR 271

Submitter Information Verification

Submitter Full Name: Gary West
Organization: Firefighter Air Coalition
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 23 13:33:07 EDT 2025
Committee: FCC-FUN

Public Comment No. 47-NFPA 1-2025 [Section No. 3.3.174]

3.3.174 In-Building Emergency Responder Communications Enhancement System.

A combination of components, RF-emitting devices, antennas, cables, power supplies, control circuitry, and programming installed at a specific location to improve wireless ~~communication at that location. (FCC-OCP)~~ communications within the building and between on-scene first responders and communications centers. **[1225** , 2022 **]**

3.3.XX Public Safety Emergency Communications System.

A public safety emergency communications system consists of any technology or system utilized for the reporting, detection, coordination, dispatching, monitoring, or tracking of emergency incidents or emergency response resources, and the support of related activities.

[**1225** , 2022]

3.3.XX Frequency License Holder(s).

The person(s) or entity(ies) that hold the license from the licensing authority of the country of jurisdiction for the frequencies being used by both the in-building emergency responder communications enhancement system and the emergency services communications system that it enhances. [**1225** , 2022]

3.3.XX Townhouse Building.

A building that contains three or more attached townhouse units. (BLD-RES) **[5000** , 2024 **]**

Additional Proposed Changes

File Name	Description	Approved
ERCES_NFPA_1_PC_for_Terra_View_4-22-25_.docx	ERCES Task Group created Public Comment	

Statement of Problem and Substantiation for Public Comment

The FUN Tasl Group determined that these definitions extracted from NFPA 1225 and NFPA 5000 were needed based on the additional Public Comment changes to Section 11.10

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 49-NFPA 1-2025 [Section No. 11.1.2.2]	
Public Comment No. 50-NFPA 1-2025 [Section No. 11.11]	

Related Item

• PI 213 & 215

Submitter Information Verification

Submitter Full Name: Bruce Johnson
Organization: FUN TC ERCES Task Group, Chair
Affiliation: FUN TC ERCES Task Group

Street Address:	
City:	
State:	
Zip:	
Submittal Date:	Tue Apr 22 10:46:40 EDT 2025
Committee:	FCC-FUN

3.3.174 In-building Emergency Responder Communications Enhancement System.
A combination of components, RF-emitting devices, antennas, cables, power supplies, control circuitry, and programming installed at a specific location to improve wireless communications ~~at that location~~ within the building and between on-scene first responders and communications centers. **[1225**, 2022**]**

Add new definitions:

3.3.XX Public Safety Emergency Communications System.
A public safety emergency communications system consists of any technology or system utilized for the reporting, detection, coordination, dispatching, monitoring, or tracking of emergency incidents or emergency response resources, and the support of related activities. [**1225**, 2022]

3.3.XX Frequency License Holder(s).
The person(s) or entity(ies) that hold the license from the licensing authority of the country of jurisdiction for the frequencies being used by both the in-building emergency responder communications enhancement system and the emergency services communications system that it enhances. [**1225**, 2022]

3.3.XX Townhouse Building.
A building that contains three or more attached townhouse units. (BLD-RES) **[5000**, 2024**]**

11.1.2 Permits.

11.1.2.2 In-Building Emergency Responder Communication Enhancement Systems.

~~**11.10.1.1**~~ **11.1.2.1** Where required by the AHJ or Frequency License Holder, an installation permit shall be obtained by the installing contractor and comply with Section 1.13.

~~**11.10.1.2**~~ **11.1.2.2**
Where required by the AHJ or the Frequency License Holder, a renewable permit in accordance with 18.7.7 of NFPA 1225 shall be obtained by the owner or the owner's agent at the conclusion of successful acceptance testing.

11.10* In-Building Emergency Responder Communication Enhancement Systems.

A. 11.11 In-Building Emergency Responder Communication Enhancement Systems (ERCES) are intended to support reliable in-building communications for a broad range of public safety agencies that might be involved in emergency response operations. These systems are not limited solely to fire department use but are designed to support all agencies that have a role in responding to and managing emergencies within buildings or structures.

Such agencies can include:

1) Fire Departments and Firefighting Units – responsible for fire suppression, rescue, and initial incident command.
2) Emergency Medical Services (EMS) – providing pre-hospital medical care and transport.

3) Law Enforcement Agencies – including local police, sheriff's departments, and special tactical units, who may respond to criminal activity, active shooter incidents, or crowd control situations.
4) Hazardous Materials (HAZMAT) Teams – specialized units trained to respond to chemical, biological, radiological, or other hazardous material events.
5) Technical Rescue Teams – engaged in high-angle, confined space, trench, or structural collapse rescues.
6) Emergency Management Agencies – when coordinating larger scale incident response and recovery operations.
7) Specialized Public Safety Units – such as bomb squads, SWAT teams, or canine units that may operate inside buildings during emergencies.

ERCES should be designed to enhance Public Safety Emergency Communications Systems, as well as other modulation technologies where applicable, and should be implemented with the operational needs of all potential responders in mind. This approach ensures effective coordination, responder safety, and successful mitigation of emergency events. These events could include structure fires, medical emergencies, hazardous material releases, law enforcement operations, and mass casualty or active shooter/hostile events.

11.10.1 General.

11.10.1.1 In-Building Emergency Responder Communication Enhancement Systems (ERCES) shall comply with Section 11.10.

11.10.1.2* ERCES is not required to be installed where the existing public safety communication system utilized by the jurisdiction does not have an operational signal at the exterior of the building as defined by the AHJ and the Frequency License Holder.

A. 11.10.1.2 The intent of this requirement is to ensure the signal strength and quality required by NFPA 1225 is available inside the building where a signal is available when measured at the exterior of that building. ERCES cannot enhance communication coverage or quality within a building when there is no functional signal available to the building from the public safety communication system. A properly designed ERCES can enhance (boost) weak signals to achieve the minimum coverage area and signal quality when there is a signal from the existing public safety communication systems that reaches the exterior of the building. A target DAQ would be 3.4 measured outside the building as required by NFPA 1225 Chapter 17 (Section 17.3.1.2.2).

~~**11.10.3**~~ **11.10.1.3** ~~In-building emergency responder communication enhancement systems~~ ERCES shall comply with the design, installation, testing, inspection, and maintenance requirements in NFPA 1225.

11.10.2 Application.
Section 11.10 shall apply to both new and existing buildings, unless otherwise permitted by 11.10.1.2.1 or 11.10.1.2.2.

11.10.2.1* Existing Buildings

A.11.10.2.1
ERCES are only required when the building thresholds listed in section 11.10.2 are exceeded, and the minimum signal strength and quality is not achieved in accordance with the criteria of Chapter 18 of NFPA 1225.

11.10.2.1.1 ERCES shall not be required in existing above ground single-story buildings less than 50,000 gross ft^2.

11.10.2.1.2 ERCES shall not be required in existing dwelling units, one- and two-family detached dwellings, or townhouse buildings.

A.11.10.2.1.2 For additional information about townhouse buildings, see the definition for Apartment Building (3.3.203.2) and the accompanying Annex Note.

11.10.2.1.3* ERCES shall not be required in existing apartment buildings 4 stories or less in height of Type V construction.

11.10.2.2* New Buildings

A.11.10.2.2
ERCES are only required when the building thresholds listed in 11.10.3 are exceeded, and the minimum signal strength and quality is not achieved in accordance with the criteria of Chapter 18 of NFPA 1225.

11.10.2.2.1 ERCES shall not be required in new above ground single-story buildings less than 20,000 gross ft^2.

11.10.2.2.2* ERCES shall not be required in new one-and two-family detached dwellings or townhouse buildings.

A.11.10.2.2.2 For additional information about townhouse buildings, see the definition for Apartment Building (3.3.203.2) and the accompanying Annex Note.

11.10.2.2.3* ERCES shall not be required in new apartment buildings 4 stories or less in height of Type V construction.

~~**11.10.2 ***~~
~~In all new and existing buildings, an approved emergency communication enhancement system shall be installed where the minimum radio signal strength into the building cannot be maintained in accordance with NFPA 1225.~~

~~**A.11.10.2**~~
~~AHJs are cautioned against requiring two-way radio communications enhancement systems in locations such as telecommunications facility equipment rooms where the operation of two-way radio devices could impair telecommunication services due to~~

~~interference. Telecommunications facilities are essential elements of the public safety network, providing communities with connectivity to 911 and E911, as well as processing of alarms and other signals. The telephone network has a large, embedded base of legacy electronic equipment that has not been designed or tested for immunity at the power levels and frequencies commonly used in responder radios. As a result, the use of radios in telecommunications equipment rooms can result in a phone service outage. A 2010 joint study of the effects of responder radios on telecommunications equipment was sponsored by several telecommunications carriers and performed by UL. This study confirmed that telecommunications equipment can be functionally impaired and damaged by close proximity radio operation at common frequencies. To help assure reliability of the phone network, it is recommended that responder radios not be utilized in telecommunications equipment areas. Telecommunications equipment rooms are not publicly accessible areas and the number of incidents requiring responder access are low compared to other commercial occupancies. As these facilities are unique occupancies with such an important role, close cooperation between the telecommunications carrier and the AHJ should be encouraged to assure responder activities are not unduly impaired.~~

~~11.10.4 Listed and Labeled.~~

~~In-building emergency responder communication enhancement systems installed within buildings shall be listed and labeled in accordance with UL 2524, In-building 2-Way Emergency Radio Communication Enhancement Systems.~~

11.10.3 Evaluation testing.

11.10.3.1 Evaluation Testing of Buildings for Compliant Coverage.

11.10.3.1.1* An evaluation of new and existing buildings shall be conducted to determine if adequate RF coverage by the Public Safety Communications System exists within the building to meet the requirements of NFPA 1225 Section 18.8 and Section 18.9 prior to requiring an emergency responder communications enhancement system be installed within the building.

A.11.10.3.1.1.

Buildings can be evaluated during the later phase of construction for a preliminary indication as to whether an ERCES will be required.

In order to accurately evaluate the need of an ERCES in a new building, the building should be complete and in the final occupancy condition. For example, building equipment, furniture, fixtures, and contents can affect the RF signal quality and strength. As this condition does not typically exist until after the Certification of Occupancy (CoO) is issued, the AHJ should make an ERCES evaluation a condition on this issuance of the building permit for the construction of the new building and as a condition on CoO issuance . If a CoO is going to be issued and an ERCES evaluation will still need to occur post CoO issuance, the building owner should also be informed of this requirement.

If an ERCES evaluation is done prior to the issuance of a CoO and it is found an ERCES is required, the AHJ should work with the contractor and owner to allow the issuance of the CoO while the ERCES is being installed. One method to deal with this is for a

separate permit to be issued for the ERCES installation that would continue in force after the issuance of the CoO.

11.10.3.1.2 Where the building does not have sufficient signal strength and quality based on an evaluation conducted in accordance with 11.10.3.2, an approved ERCES shall be installed in accordance with NFPA 1225.

11.10.3.1.3 Buildings required to comply with Section 11.10 shall be required to maintain signal strength and quality throughout the life of the building.

11.10.3.2* Evaluation of Existing Buildings.
Where an AHJ determines that an existing building does not have sufficient signal strength and quality within the building, the AHJ shall be authorized to require an evaluation of signal strength and quality in in accordance with 11.10.4.1.

A.11.10.3.2
The requirement in 11.11.3.2 is not intended to apply to buildings that meet the exemptions in 11.11.2.1 which are based on building height, square footage and specific occupancy types.

When a deficiency is discovered in an existing building, typically during an emergency response to the building, the AHJ can determine that an evaluation of the building is warranted. Consideration should be given to not require unnecessary building evaluations unless there is clear evidence that a deficiency exists.

Where determined by the evaluation, a building might require the installation of a new ERCES or enhancement of an existing ERCES.

In such cases, the AHJ should provide a reasonable time for the building owner to have the evaluation completed and, if necessary, a corrective action plan to achieve compliance in accordance with this code.

11.10.4 System Maintenance

11.10.4.1 The ERCES shall be inspected, tested, and maintained in accordance with Chapter 18 of NFPA 1225.

11.10.4.2 The AHJ or Frequency License Holder is authorized to order the immediate shutdown and investigation of an In-Building Emergency Communication Enhancement System when the AHJ or Frequency License Holder suspects the In-Building Emergency Communication Enhancement System is interfering with the Public Safety Emergency Communications System.

11.10.5.2 Remote Access Shutdown. Where provided, remote access shall comply with Section 18.16 of NFPA 1225.

(INSERT A NEW 11.11 AND RENUMBER THE REMAINING):

11.11 Fire Department Radio Communications Systems.

ERCES Task Group Public Comment

(Public Comment for Terra View)

11.11.1 Scope. The scope of section 11.12 shall apply to radio communication systems utilized to transmit calls for service to fire department emergency response facilities or to fire department emergency response units in the field.

11.11.2* The fire department radio communication system shall meet the performance requirements of Chapter 17 of NFPA 1225.

> **A.11.11.2** The performance of the fire department radio system is a critical component for firefighter safety during emergency operations. NFPA 1225 Chapter 17 (section 17.3.1.2) specifies that the fire department radio communication system shall be designed to provide no less than 95 percent coverage of the jurisdictional area as defined by the AHJ, 95 percent of the time, with a 95 percent confidence factor. If the fire department radio system does not meet this standard, then the AHJ should work with the jurisdiction to establish a compliance program within an expedited time-frame in order to bring the fire department radio system into compliance.

Supporting Rational Statement

The Task Group held 5 meetings to prepare this Public Comment based on the direction from the Fundamental Technical Committee to revise the requirements in Section 11.11 with the technical requirements in NFPA 1225.

This proposal accomplishes the following:

1. Adds extracted definitions from NFPA 1225
2. Adds extracted definition for Townhouse Buildings from NFPA 5000
3. Adds a comprehensive new Annex Note for A.11.10 for an explanation of ERCES. Correlates with First Revisions made to NFPA 1225
4. Adds a scoping section
5. Adds permit requirements
6. Adds new requirements for ERCES evaluations for new and existing buildings; provides exemptions for specific buildings the TG felt were low-risk, not needing an ERCES for emergency responder safety
7. Directs all technical requirements to NFPA 1225
8. Adds requirements and Annex Notes for requirements on when buildings must be evaluated to determine if an ERCES is needed within a building
9. Adds requirement for installation of ERCES based on the evaluation of signal strength and quality within a building
10. Add ERCES maintenance requirements
11. Adds a new Section in Chapter 11 (to be placed after ERCES) - 11.11 Fire Department Radio Communications Systems, with a pointer to technical requirements in Chapter 17 of NFPA 1225

Public Comment No. 6-NFPA 1-2025 [New Section after 10.2.6]

Insert a new 10.2.7 and renumber the remaining:

10.2.7 Firefighter Safety

10.2.7.1 When the owner, operator, tenant or authorized representative has knowledge of, or reason to believe that a structurally unsafe condition exists in a building, the owner, operator, tenant or authorized agent shall immediately notify the AHJ and the fire department.

A.10.2.7.1 Under section 1.7.3, the AHJ is authorized to establish policies and processes for notification of unsafe conditions as required by this section.

10.2.7.2 Buildings that are determined to be structurally unsafe shall be marked as unsafe for entry in a manner that is readily obvious to responding firefighters and approved by the AHJ.

A.10.2.7.2 Under section 1.7.3, the AHJ is authorized to establish policies for the details of building marking under this section.

Statement of Problem and Substantiation for Public Comment

PC addresses the concern raised by the TC in response to PI 44 in response to the the due process and ownership issues. The contents of this section have been significantly culled to just focus on notification of the AHJ and FD over unsafe and posting of the buildings. Annex text has also been added for clarity.

The justification of the need for this language from PI 44 still stands.

Related Item

• PI 44

Submitter Information Verification

Submitter Full Name: Anthony Apfelbeck
Organization: Altamonte Springs Building and Fire Safety Department
Street Address:
City:
State:
Zip:
Submittal Date: Tue Feb 11 08:10:21 EST 2025
Committee: FCC-FUN

Public Comment No. 8-NFPA 1-2025 [New Section after 10.14.2.1]

10.14.3.2 Conditions to Be Assessed. Life safety evaluations shall include an assessment of all of the following conditions and related appropriate safety measures:

(1) Nature of the events and the participants and attendees

(2) Access and egress movement, including crowd density problems

(3) Medical emergencies

(4) Fire hazards

(5) Permanent and temporary structural systems

(6) Severe weather conditions

(7) Earthquakes

(8) Civil or other disturbances

(9) Hazardous materials incidents within and near the facility

(10) Relationships among facility management, event participants, emergency response agencies, and others having a role in the events accommodated in the facility

[***101*** : 12.4.2.2]

Statement of Problem and Substantiation for Public Comment

This section was deleted with a reference to the life safety evaluation in 101. This section specifically addressed issues that should be taken into account for outside events and should be retained to assist the user. I agree with the reference in 101 for the other life safety evaluation items as they don't apply here.

Related Item

• FR59

Submitter Information Verification

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Committee: FCC-FUN

Public Comment No. 66-NFPA 1-2025 [Section No. 10.15.2]

10.15.2

Portable generators manufactured after January 1, 2021, other than vehicle-mounted generators, shall be listed and labeled in accordance ~~with the carbon monoxide mitigation requirements in UL 2201~~ with UL 2201 , *Carbon Monoxide Emission Rate of Portable Generators,* or labeled in accordance with ANSI/PGMA G300, *Safety and Performance of Portable Generators* .

Statement of Problem and Substantiation for Public Comment

For Section 10.15.4, the Portable Generator Manufacturers' Association (PGMA) has no proposals. However, we have serious industry concerns about the limitations being set in 10.15.2, with relation to UL 2201. As you may or may not be aware, PGMA has an ANSI-approved standard, ANSI/PGMA G300, Safety and Performance of Portable Generators. It is a comprehensive safety and performance standard that includes requirements for a CO shutoff system, similar to UL 2201. From our estimates over 75% of the portable generator market is in compliance with PGMA 300, which includes 100% compliance for PGMA members. For comparison UL 2201 represents less than 1% of the portable generator market. Therefore, we respectfully request that 10.15.2 be expanded to include PGMA G300 as an alternative safety standard for portable generator compliance.

Related Item

• FR-14

Submitter Information Verification

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Submittal Date: Thu Apr 24 13:15:32 EDT 2025
Committee: FCC-FUN

Public Comment No. 43-NFPA 1-2025 [Section No. 10.22]

10.22* Alcohol-Based Hand-Rub (ABHR) Dispensers.

Where permitted by Chapters 11 through 43 of NFPA 101, ABHR dispensers shall be permitted provided they meet all of the criteria in 10.22.1 through 10.22.~~5~~ 6 . [**101:**8.7.3.3]

10.22.1 * Replacement Solution in Storage.

ABHR solution in storage shall comply with 66.1.4 and the permit requirements in Table 1.13.8(a) and 66.1.6.2.

A.10.22.1

ABHR solution is a Class IB flammable liquid regulated by NFPA 30. Chapter 66 of this code requires a permit to store, handle, or use Class I liquids in excess of 5 gal (18.9 L) in a building or in excess of 10 gal (37.9 L) outside of a building. ABHR dispensers that are in use in compliance with section 10.22 are not included when determining the quantity that requires a permit.

10.22.2 Personal Use Containers.

The requirements of Section 10.22 shall not apply to individual personal use ABHR containers with a volume not exceeding 16.9 oz (500 mL). [**101:**8.7.3.3.1]

10.22.~~2~~ 3 ABHR Dispenser Capacity.

The capacity of ABHR dispensers shall comply with all of the following:

(1) The maximum individual dispenser fluid capacity shall be as follows:

(2) 0.53 gal (2.0 L) for dispensers in corridors and areas open to corridors

(3) 1.06 gal (4.0 L) for dispensers in corridors and areas open to corridors in buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 13.3

(4) 1.06 gal (4.0 L) for dispensers in rooms or suites of rooms separated from corridors

(5) Where aerosol containers are used, the maximum capacity of the aerosol dispenser shall be 18 oz (0.51 kg) and shall be limited to Level 1 aerosols as defined in NFPA 30B.

(6) In buildings without an automatic sprinkler system, not more than an aggregate 10 gal (37.8 L) of ABHR solution or 1135 oz (32.2 kg) of Level 1 aerosols, or a combination of liquids and Level 1 aerosols not to exceed, in total, the equivalent of 10 gal (37.8 L) or 1135 oz (32.2 kg), shall be in use outside of a storage cabinet in a single smoke compartment or fire compartment or story, whichever is less in area. One dispenser complying with 10.22.2(1) per room and located in that room shall not be included in the aggregated quantity.

(7) In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 13.3, not more than an aggregate 20 gal (75.6 L) of ABHR solution shall be in use outside of a storage cabinet in a single smoke compartment or fire compartment or story, whichever is less in area. One dispenser complying with 10.22.2(1) per room and located in that room shall not be included in the aggregated quantity.

[**101:**8.7.3.3.2]

10.22.3 4 ABHR Dispenser Location.

The locations of ABHR dispensers shall comply with all of the following:

(1) Dispensers shall not be installed in the following locations:

(2) Above an ignition source for a horizontal distance of 1 in. (25 mm) to each side of the ignition source

(3) To the side of an ignition source within a 1 in. (25 mm) horizontal distance from the ignition source

(4) Beneath an ignition source within a 1 in. (25 mm) vertical distance from the ignition source

(5) Dispensers installed directly over carpeted floors shall be permitted only in sprinklered areas of the building.

(6) ABHR dispensers shall be separated from each other by horizontal spacing of not less than 48 in. (1220 mm).

[**101:**8.7.3.3.3]

10.22.4 5 ABHR Dispenser Operation and Testing.

The operation of the dispenser shall comply with the following:

(1) Dispensers shall not release their contents except when activated, either manually or automatically by touch-free activation.

(2) Any activation of a dispenser shall only occur when an object is placed within 4 in. (100 mm) of the sensing device.

(3) An object placed within an activation zone and left in place shall not cause more than one activation.

(4) Dispensers shall not dispense more solution than the amount required for hand hygiene consistent with label instructions.

(5) Dispensers shall be designed, constructed, and operated in a manner that ensures accidental or malicious activation of dispensing devices is minimized.

(6) Dispensers shall be tested in accordance with the manufacturer's care and use instructions each time new refills are installed.

[**101:**8.7.3.3.4]

10.22.5 6 Spill Containment and Maintenance.

Maintenance and spill containment of the dispenser shall comply with the following:

(1) Spill containment for dispensers shall be provided.

(2) Any ABHR spilled during a refill process shall be removed following the refill operation.

(3) Catch basins or spill collection means shall be kept free of accumulated ABHR material and refuse.

[**101:**8.7.3.3.5]

Additional Proposed Changes

File Name	Description	Approved
Public_Comment_NFPA_1_ABHR.docx	ABHR Task Group created Public Comment	

Statement of Problem and Substantiation for Public Comment

Based on the work of the Task Group, this Public Comment and Annex Note references the applicable requirements in NFPA 30 for MAQs for ABHR solution in storage and highlights the applicable Permit

requirement in NFPA 1 for Class I flammable liquids. ABHR solution is Class 1B.

Related Item

• PI 205

Submitter Information Verification

Submitter Full Name: Bruce Johnson
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Submittal Date: Tue Apr 22 10:31:43 EDT 2025
Committee: FCC-FUN

Draft Public Comment for Task Group Consideration
Regulation of ABHR Solution in Storage

10.22 * Alcohol-Based Hand-Rub (ABHR) Dispensers.
Where permitted by Chapters 11 through 43 of NFPA *101*, ABHR dispensers shall be permitted provided they meet all of the criteria in 10.22.1 through 10.22.~~5~~6. [***101*:**8.7.3.3]

A.10.22
The total quantities of ignitible (flammable or combustible) liquids in any area should comply with the provisions of other recognized codes, including NFPA 1 and NFPA 30. In addition, special consideration should be given to the following:

(1) Obstructions created by the installation of hand-rub solution dispensers

(2) Location of dispensers with regard to adjacent combustible materials and potential sources of ignition, especially where dispensers are mounted on walls of combustible construction

(3) Requirements for other fire protection features, including complete automatic sprinkler protection, to be installed throughout the compartment

(4) Amount and location of the flammable solutions, both in use and in storage, particularly with respect to potential for leakage or failure of the dispenser
[***101*:**A.8.7.3.3]

Insert new section, renumber subsequent sections

10.22.1* Replacement Solution in Storage.
ABHR solution in storage shall comply with 66.1.4 and the permit requirements in Table 1.13.8(a) and 66.1.6.2.

A.10.22.1
ABHR solution is a Class IB flammable liquid regulated by NFPA 30. Chapter 66 of this code requires a permit to store, handle, or use Class I liquids in excess of 5 gal (18.9 L) in a building or in excess of 10 gal (37.9 L) outside of a building. ABHR dispensers that are in use in compliance with section 10.22 are not included when determining the quantity that requires a permit.

For reference:
66.1.4
The storage of ABHR solution shall be in accordance with NFPA 30.

Table 1.13.8(a)
To store, handle, or use Class I liquids in excess of 5 gal (18.9 L) in a building or in excess of 10 gal (37.9 L) outside of a building

66.1.6.2
Permits, where required, shall comply with Section 1.13.

Public Comment No. 53-NFPA 1-2025 [Section No. 10.23]

10.23 Battery Safety

10.23.1 Battery Containment Enclosures (BCE).

Where Class L, lithium-~~ion batteries~~ ion batteries or equipment powered by Class L, lithium-ion chemistry, batteries are stored or charged within a BCE, the enclosure shall be listed and labeled in accordance with UL 1487, *Battery Containment Enclosures*.

10.23.2 Portable Power Packs.

The use, operation, and maintenance of portable power packs with an energy capacity of 1 kWh up to 20 kWh shall comply with 10.23.2.

10.23.2.1 Listing.

Portable power packs shall be listed and labeled in accordance with UL 2743, *Portable Power Packs*.

10.23.2.2 Operation and Maintenance.

Portable power packs shall be used, located, and maintained in accordance with their listing and the manufacturer's instructions.

Statement of Problem and Substantiation for Public Comment

Apropos 10.23 (FR 68) it is prudent to adopt Class L and introduce that as vernacular.
As a Codes and Standards body, I believe we should align with the international consensus in adopting Class L for the nomenclature, taxonomy, and language surrounding lithium-ion fires. These incidents, while unique in their characteristics, do not contain lithium metal and therefore should not fall under Class D, a designation sometimes mistakenly applied. Standardizing this classification ensures accuracy in fire safety protocols and aligns with global best practices for identifying and mitigating risks associated with lithium-ion technology.
This would also allow the introduction of Class L, as other Standards are awaiting its adoption into NFPA 1 before entertaining elsewhere.
BTW, this is a universal issue; the International Standards Organisation (ISO) recognizes this – Class L is proposed in ISO 3941, in cycle to add a new category (L) for this risk, with public comment closing imminently. Their proposed Class L is for "fires involving rechargeable lithium-ion cells & batteries, where no lithium metal is present".

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 54-NFPA 1-2025 [Section No. 3.3.138]	

Related Item

- FR 68

Submitter Information Verification

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Submittal Date:	Wed Apr 23 04:09:03 EDT 2025
Committee:	FCC-FUN

Public Comment No. 49-NFPA 1-2025 [Section No. 11.1.2.2]

11.1.2.2 In-Building Emergency Responder Communication Enhancement Systems.

11.1.2.2.1

~~Permits shall be required to install and operate an in-building emergency responder communication enhancement system. *(See Section 11.11 .)*~~

Where required by the AHJ or Frequency License Holder, an installation permit shall be obtained by the installing contractor and comply with Section 1.13.

11.1.2.2.2 _

Where required by the AHJ or the Frequency License Holder , a renewable permit in accordance with 18.7.7 of NFPA 1225 shall be issued at the conclusion of successful acceptance testing.

Additional Proposed Changes

File Name	Description	Approved
ERCES_NFPA_1_PC_for_Terra_View_4-22-25_.docx	FUN TC created Public Comment	

Statement of Problem and Substantiation for Public Comment

This Public Comment adds Frequency License Holder for determination for requiring an installation and/or renewable permit for an ERCES. The Task Group determined this change was needed and the change correlates to requirements in NFPA 1225.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 47-NFPA 1-2025 [Section No. 3.3.174]	
Public Comment No. 50-NFPA 1-2025 [Section No. 11.11]	

Related Item

• PI 215 & 213

Submitter Information Verification

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Submittal Date: Tue Apr 22 10:55:36 EDT 2025
Committee: FCC-FUN

3.3.174 In-building Emergency Responder Communications Enhancement System.
A combination of components, RF-emitting devices, antennas, cables, power supplies, control circuitry, and programming installed at a specific location to improve wireless communications ~~at that location~~ within the building and between on-scene first responders and communications centers. **[1225**, 2022**]**

Add new definitions:

3.3.XX Public Safety Emergency Communications System.
A public safety emergency communications system consists of any technology or system utilized for the reporting, detection, coordination, dispatching, monitoring, or tracking of emergency incidents or emergency response resources, and the support of related activities. [**1225**, 2022]

3.3.XX Frequency License Holder(s).
The person(s) or entity(ies) that hold the license from the licensing authority of the country of jurisdiction for the frequencies being used by both the in-building emergency responder communications enhancement system and the emergency services communications system that it enhances. [**1225**, 2022]

3.3.XX Townhouse Building.
A building that contains three or more attached townhouse units. (BLD-RES) **[5000**, 2024**]**

11.1.2 Permits.

11.1.2.2 In-Building Emergency Responder Communication Enhancement Systems.

~~**11.10.1.1**~~ **11.1.2.1** Where required by the AHJ or Frequency License Holder, an installation permit shall be obtained by the installing contractor and comply with Section 1.13.

~~**11.10.1.2**~~ **11.1.2.2**
Where required by the AHJ or the Frequency License Holder, a renewable permit in accordance with 18.7.7 of NFPA 1225 shall be obtained by the owner or the owner's agent at the conclusion of successful acceptance testing.

11.10* In-Building Emergency Responder Communication Enhancement Systems.

A. 11.11 In-Building Emergency Responder Communication Enhancement Systems (ERCES) are intended to support reliable in-building communications for a broad range of public safety agencies that might be involved in emergency response operations. These systems are not limited solely to fire department use but are designed to support all agencies that have a role in responding to and managing emergencies within buildings or structures.

Such agencies can include:

1) Fire Departments and Firefighting Units – responsible for fire suppression, rescue, and initial incident command.
2) Emergency Medical Services (EMS) – providing pre-hospital medical care and transport.

3) Law Enforcement Agencies – including local police, sheriff's departments, and special tactical units, who may respond to criminal activity, active shooter incidents, or crowd control situations.
4) Hazardous Materials (HAZMAT) Teams – specialized units trained to respond to chemical, biological, radiological, or other hazardous material events.
5) Technical Rescue Teams – engaged in high-angle, confined space, trench, or structural collapse rescues.
6) Emergency Management Agencies – when coordinating larger scale incident response and recovery operations.
7) Specialized Public Safety Units – such as bomb squads, SWAT teams, or canine units that may operate inside buildings during emergencies.

ERCES should be designed to enhance Public Safety Emergency Communications Systems, as well as other modulation technologies where applicable, and should be implemented with the operational needs of all potential responders in mind. This approach ensures effective coordination, responder safety, and successful mitigation of emergency events. These events could include structure fires, medical emergencies, hazardous material releases, law enforcement operations, and mass casualty or active shooter/hostile events.

11.10.1 General.

11.10.1.1 In-Building Emergency Responder Communication Enhancement Systems (ERCES) shall comply with Section 11.10.

11.10.1.2* ERCES is not required to be installed where the existing public safety communication system utilized by the jurisdiction does not have an operational signal at the exterior of the building as defined by the AHJ and the Frequency License Holder.

A. 11.10.1.2 The intent of this requirement is to ensure the signal strength and quality required by NFPA 1225 is available inside the building where a signal is available when measured at the exterior of that building. ERCES cannot enhance communication coverage or quality within a building when there is no functional signal available to the building from the public safety communication system. A properly designed ERCES can enhance (boost) weak signals to achieve the minimum coverage area and signal quality when there is a signal from the existing public safety communication systems that reaches the exterior of the building. A target DAQ would be 3.4 measured outside the building as required by NFPA 1225 Chapter 17 (Section 17.3.1.2.2).

~~**11.10.3**~~ **11.10.1.3** ~~In-building emergency responder communication enhancement systems~~ ERCES shall comply with the design, installation, testing, inspection, and maintenance requirements in NFPA 1225.

11.10.2 Application.
Section 11.10 shall apply to both new and existing buildings, unless otherwise permitted by 11.10.1.2.1 or 11.10.1.2.2.

11.10.2.1* Existing Buildings

A.11.10.2.1
ERCES are only required when the building thresholds listed in section 11.10.2 are exceeded, and the minimum signal strength and quality is not achieved in accordance with the criteria of Chapter 18 of NFPA 1225.

11.10.2.1.1 ERCES shall not be required in existing above ground single-story buildings less than 50,000 gross ft^2.

11.10.2.1.2 ERCES shall not be required in existing dwelling units, one- and two-family detached dwellings, or townhouse buildings.

A.11.10.2.1.2 For additional information about townhouse buildings, see the definition for Apartment Building (3.3.203.2) and the accompanying Annex Note.

11.10.2.1.3* ERCES shall not be required in existing apartment buildings 4 stories or less in height of Type V construction.

11.10.2.2* New Buildings

A.11.10.2.2
ERCES are only required when the building thresholds listed in 11.10.3 are exceeded, and the minimum signal strength and quality is not achieved in accordance with the criteria of Chapter 18 of NFPA 1225.

11.10.2.2.1 ERCES shall not be required in new above ground single-story buildings less than 20,000 gross ft^2.

11.10.2.2.2* ERCES shall not be required in new one-and two-family detached dwellings or townhouse buildings.

A.11.10.2.2.2 For additional information about townhouse buildings, see the definition for Apartment Building (3.3.203.2) and the accompanying Annex Note.

11.10.2.2.3* ERCES shall not be required in new apartment buildings 4 stories or less in height of Type V construction.

~~**11.10.2 ***~~
~~In all new and existing buildings, an approved emergency communication enhancement system shall be installed where the minimum radio signal strength into the building cannot be maintained in accordance with NFPA 1225.~~

~~**A.11.10.2**~~
~~AHJs are cautioned against requiring two-way radio communications enhancement systems in locations such as telecommunications facility equipment rooms where the operation of two-way radio devices could impair telecommunication services due to~~

~~interference. Telecommunications facilities are essential elements of the public safety network, providing communities with connectivity to 911 and E911, as well as processing of alarms and other signals. The telephone network has a large, embedded base of legacy electronic equipment that has not been designed or tested for immunity at the power levels and frequencies commonly used in responder radios. As a result, the use of radios in telecommunications equipment rooms can result in a phone service outage. A 2010 joint study of the effects of responder radios on telecommunications equipment was sponsored by several telecommunications carriers and performed by UL. This study confirmed that telecommunications equipment can be functionally impaired and damaged by close proximity radio operation at common frequencies. To help assure reliability of the phone network, it is recommended that responder radios not be utilized in telecommunications equipment areas. Telecommunications equipment rooms are not publicly accessible areas and the number of incidents requiring responder access are low compared to other commercial occupancies. As these facilities are unique occupancies with such an important role, close cooperation between the telecommunications carrier and the AHJ should be encouraged to assure responder activities are not unduly impaired.~~

~~11.10.4 Listed and Labeled.~~

~~In-building emergency responder communication enhancement systems installed within buildings shall be listed and labeled in accordance with UL 2524, In-building 2-Way Emergency Radio Communication Enhancement Systems.~~

11.10.3 Evaluation testing.

11.10.3.1 Evaluation Testing of Buildings for Compliant Coverage.

11.10.3.1.1* An evaluation of new and existing buildings shall be conducted to determine if adequate RF coverage by the Public Safety Communications System exists within the building to meet the requirements of NFPA 1225 Section 18.8 and Section 18.9 prior to requiring an emergency responder communications enhancement system be installed within the building.

A.11.10.3.1.1.

Buildings can be evaluated during the later phase of construction for a preliminary indication as to whether an ERCES will be required.

In order to accurately evaluate the need of an ERCES in a new building, the building should be complete and in the final occupancy condition. For example, building equipment, furniture, fixtures, and contents can affect the RF signal quality and strength. As this condition does not typically exist until after the Certification of Occupancy (CoO) is issued, the AHJ should make an ERCES evaluation a condition on this issuance of the building permit for the construction of the new building and as a condition on CoO issuance . If a CoO is going to be issued and an ERCES evaluation will still need to occur post CoO issuance, the building owner should also be informed of this requirement.

If an ERCES evaluation is done prior to the issuance of a CoO and it is found an ERCES is required, the AHJ should work with the contractor and owner to allow the issuance of the CoO while the ERCES is being installed. One method to deal with this is for a

separate permit to be issued for the ERCES installation that would continue in force after the issuance of the CoO.

11.10.3.1.2 Where the building does not have sufficient signal strength and quality based on an evaluation conducted in accordance with 11.10.3.2, an approved ERCES shall be installed in accordance with NFPA 1225.

11.10.3.1.3 Buildings required to comply with Section 11.10 shall be required to maintain signal strength and quality throughout the life of the building.

11.10.3.2* Evaluation of Existing Buildings.
Where an AHJ determines that an existing building does not have sufficient signal strength and quality within the building, the AHJ shall be authorized to require an evaluation of signal strength and quality in in accordance with 11.10.4.1.

A.11.10.3.2
The requirement in 11.11.3.2 is not intended to apply to buildings that meet the exemptions in 11.11.2.1 which are based on building height, square footage and specific occupancy types.

When a deficiency is discovered in an existing building, typically during an emergency response to the building, the AHJ can determine that an evaluation of the building is warranted. Consideration should be given to not require unnecessary building evaluations unless there is clear evidence that a deficiency exists.

Where determined by the evaluation, a building might require the installation of a new ERCES or enhancement of an existing ERCES.

In such cases, the AHJ should provide a reasonable time for the building owner to have the evaluation completed and, if necessary, a corrective action plan to achieve compliance in accordance with this code.

11.10.4 System Maintenance

11.10.4.1 The ERCES shall be inspected, tested, and maintained in accordance with Chapter 18 of NFPA 1225.

11.10.4.2 The AHJ or Frequency License Holder is authorized to order the immediate shutdown and investigation of an In-Building Emergency Communication Enhancement System when the AHJ or Frequency License Holder suspects the In-Building Emergency Communication Enhancement System is interfering with the Public Safety Emergency Communications System.

11.10.5.2 Remote Access Shutdown. Where provided, remote access shall comply with Section 18.16 of NFPA 1225.

(INSERT A NEW 11.11 AND RENUMBER THE REMAINING):

11.11 Fire Department Radio Communications Systems.

ERCES Task Group Public Comment

(Public Comment for Terra View)

11.11.1 Scope. The scope of section 11.12 shall apply to radio communication systems utilized to transmit calls for service to fire department emergency response facilities or to fire department emergency response units in the field.

11.11.2* The fire department radio communication system shall meet the performance requirements of Chapter 17 of NFPA 1225.

> **A.11.11.2** The performance of the fire department radio system is a critical component for firefighter safety during emergency operations. NFPA 1225 Chapter 17 (section 17.3.1.2) specifies that the fire department radio communication system shall be designed to provide no less than 95 percent coverage of the jurisdictional area as defined by the AHJ, 95 percent of the time, with a 95 percent confidence factor. If the fire department radio system does not meet this standard, then the AHJ should work with the jurisdiction to establish a compliance program within an expedited time-frame in order to bring the fire department radio system into compliance.

Supporting Rational Statement

The Task Group held 5 meetings to prepare this Public Comment based on the direction from the Fundamental Technical Committee to revise the requirements in Section 11.11 with the technical requirements in NFPA 1225.

This proposal accomplishes the following:

1. Adds extracted definitions from NFPA 1225
2. Adds extracted definition for Townhouse Buildings from NFPA 5000
3. Adds a comprehensive new Annex Note for A.11.10 for an explanation of ERCES. Correlates with First Revisions made to NFPA 1225
4. Adds a scoping section
5. Adds permit requirements
6. Adds new requirements for ERCES evaluations for new and existing buildings; provides exemptions for specific buildings the TG felt were low-risk, not needing an ERCES for emergency responder safety
7. Directs all technical requirements to NFPA 1225
8. Adds requirements and Annex Notes for requirements on when buildings must be evaluated to determine if an ERCES is needed within a building
9. Adds requirement for installation of ERCES based on the evaluation of signal strength and quality within a building
10. Add ERCES maintenance requirements
11. Adds a new Section in Chapter 11 (to be placed after ERCES) - 11.11 Fire Department Radio Communications Systems, with a pointer to technical requirements in Chapter 17 of NFPA 1225

Public Comment No. 50-NFPA 1-2025 [Section No. 11.11]

11.11* In-Building Emergency Responder Communication Enhancement Systems.

11.11.1* –

~~In all new and existing buildings, an approved emergency communication enhancement system shall be installed where the minimum radio signal strength into the building cannot be maintained in accordance with NFPA 1225.~~

~~11.11.1.1~~ –

~~Where required by the AHJ, an installation permit shall comply with Section 1.13 .~~

~~11.11.2~~ –

~~In-building emergency responder communication enhancement systems shall comply with the design, installation, testing, inspection, and maintenance requirements of NFPA 1225.~~

~~11.11.3~~ – ~~Listed and Labeled.~~

~~In-building emergency responder communication enhancement systems installed within buildings shall be listed and labeled in accordance with UL 2524, *In-building 2-Way Emergency Radio Communication Enhancement Systems* .~~

.1 –

Where required by the AHJ or Frequency License Holder, an installation permit shall be obtained by the installing contractor and comply with Section 1.13 .

11.11.2 –

ERCES shall comply with the design, installation, testing, inspection, and maintenance requirements of NFPA 1225.

A. 11. 11 In-Building Emergency Responder Communication Enhancement Systems (ERCES) are intended to support reliable in-building communications for a broad range of public safety agencies that might be involved in emergency response operations. These systems are not limited solely to fire department use but are designed to support all agencies that have a role in responding to and managing emergencies within buildings or structures.

Such agencies can include:

(1) Fire Departments and Firefighting Units – responsible for fire suppression, rescue, and initial incident command.

(2) Emergency Medical Services (EMS) – providing pre-hospital medical care and transport.

(3) Law Enforcement Agencies – including local police, sheriff's departments, and special tactical units, who may respond to criminal activity, active shooter incidents, or crowd control situations.

(4) Hazardous Materials (HAZMAT) Teams – specialized units trained to respond to chemical, biological, radiological, or other hazardous material events.

(5) Technical Rescue Teams – engaged in high-angle, confined space, trench, or structural collapse rescues.

(6) Emergency Management Agencies – when coordinating larger scale incident response and recovery operations.

(7) Specialized Public Safety Units – such as bomb squads, SWAT teams, or canine units that may operate inside buildings during emergencies.

ERCES should be designed to enhance Public Safety Emergency Communications Systems, as well as other modulation technologies where applicable, and should be implemented with the operational needs of all potential responders in mind. This approach ensures effective coordination, responder safety, and successful mitigation of emergency events. These events could include structure fires, medical emergencies, hazardous material releases, law enforcement operations, and mass casualty or active shooter/ hostile events.

11.11.1 General.

11.11.1.1 In-Building Emergency Responder Communication Enhancement Systems (ERCES) shall comply with Section 11.11.

11.11.1.2* ERCES is not required to be installed where the existing public safety communication system utilized by the jurisdiction does not have an operational signal at the exterior of the building as defined by the AHJ and the Frequency License Holder.

A. 11.11.1.2 The intent of this requirement is to ensure the signal strength and quality required by NFPA 1225 is available inside the building where a signal is available when measured at the exterior of that building. ERCES cannot enhance communication coverage or quality within a building when there is no functional signal available to the building from the public safety communication system. A properly designed ERCES can enhance (boost) weak signals to achieve the minimum coverage area and signal quality when there is a signal from the existing public safety communication systems that reaches the exterior of the building. A target DAQ would be 3.4 measured outside the building as required by NFPA 1225 Chapter 17 (Section 17.3.1.2.2).

11.11.2 Application.

Section 11.11 shall apply to both new and existing buildings, unless otherwise permitted by 11.11.1.2.1 or 11.11.1.2.2.

11.11.2.1* Existing Buildings

A.11.11.2.1

ERCES are only required when the building thresholds listed in section 11.11.2 are exceeded, and the minimum signal strength and quality is not achieved in accordance with the criteria of Chapter 18 of NFPA 1225.

11.11.2.1.1 ERCES shall not be required in existing above ground single-story buildings less than 50,000 gross ft^2.

11.11.2.1.2 ERCES shall not be required in existing dwelling units, one- and two-family detached dwellings, or townhouse buildings.

A.11.11.2.1.2 For additional information about townhouse buildings, see the definition for Apartment Building (3.3.203.2) and the accompanying Annex Note.

11.11.2.1.3* ERCES shall not be required in existing apartment buildings 4 stories or less in height of Type V construction.

11.10.2.2* New Buildings

A.11.11.2.2

ERCES are only required when the building thresholds listed in 11.11.3 are exceeded, and the minimum signal strength and quality is not achieved in accordance with the criteria of Chapter 18 of NFPA 1225.

11. 11.2.2.1 ERCES shall not be required in new above ground single-story buildings less than 20,000 gross ft^2.

11.11.2.2.2 * ERCES shall not be required in new one-and two-family detached dwellings or townhouse buildings.

A.11.11.2.2.2 For additional information about townhouse buildings, see the definition for Apartment Building (3.3.203.2) and the accompanying Annex Note.

11.11.2.2.3* ERCES shall not be required in new apartment buildings 4 stories or less in height of Type V construction.

11.11.3 Evaluation testing.

11.11.3.1 Evaluation Testing of Buildings for Compliant Coverage.

11.11.3.1.1* An evaluation of new and existing buildings shall be conducted to determine if adequate RF coverage by the Public Safety Communications System exists within the building to meet the requirements of NFPA 1225 Section 18.8 and Section 18.9 prior to requiring an emergency responder communications enhancement system be installed within the building.

A.11.11.3.1.1.

Buildings can be evaluated during the later phase of construction for a preliminary indication as to whether an ERCES will be required.

In order to accurately evaluate the need of an ERCES in a new building, the building should be complete and in the final occupancy condition. For example, building equipment, furniture, fixtures, and contents can affect the RF signal quality and strength. As this condition does not typically exist until after the Certification of Occupancy (CoO) is issued, the AHJ should make an ERCES evaluation a condition on this issuance of the building permit for the construction of the new building and as a condition on CoO

issuance . If a CoO is going to be issued and an ERCES evaluation will still need to occur post CoO issuance, the building owner should also be informed of this requirement.

If an ERCES evaluation is done prior to the issuance of a CoO and it is found an ERCES is required, the AHJ should work with the contractor and owner to allow the issuance of the CoO while the ERCES is being installed. One method to deal with this is for a separate permit to be issued for the ERCES installation that would continue in force after the issuance of the CoO.

11.11.3.1.2 Where the building does not have sufficient signal strength and quality based on an evaluation conducted in accordance with 11.11.3.2, an approved ERCES shall be installed in accordance with NFPA 1225.

11.11.3.1.3 Buildings required to comply with Section 11.11 shall be required to maintain signal strength and quality throughout the life of the building.

11.11.3.2* Evaluation of Existing Buildings.

Where an AHJ determines that an existing building does not have sufficient signal strength and quality within the building, the AHJ shall be authorized to require an evaluation of signal strength and quality in in accordance with 11.11.4.1.

A.11.11.3.2

The requirement in 11.11.3.2 is not intended to apply to buildings that meet the exemptions in 11.11.2.1 which are based on building height, square footage and specific occupancy types.

When a deficiency is discovered in an existing building, typically during an emergency response to the building, the AHJ can determine that an evaluation of the building is warranted. Consideration should be given to not require unnecessary building evaluations unless there is clear evidence that a deficiency exists.

Where determined by the evaluation, a building might require the installation of a new ERCES or enhancement of an existing ERCES.

In such cases, the AHJ should provide a reasonable time for the building owner to have the evaluation completed and, if necessary, a corrective action plan to achieve compliance in accordance with this code.

11.11.4 System Maintenance

11.11.4.1 The ERCES shall be inspected, tested, and maintained in accordance with Chapter 18 of NFPA 1225.

11.11.4.2 The AHJ or Frequency License Holder is authorized to order the immediate shutdown and investigation of an In-Building Emergency Communication Enhancement System when the AHJ or Frequency License Holder suspects the In-Building Emergency Communication Enhancement System is interfering with the Public Safety Emergency Communications System .

11.11.5 Remote Access Shutdown . Where provided, remote access shall comply with Section 18.16 of NFPA 1225.

(INSERT A NEW 11.12 AND RENUMBER THE REMAINING):

11.12 Fire Department Radio Communications Systems .

11.12.1 Scope. The scope of section 11.12 shall apply to radio communication systems utilized to transmit calls for service to fire department emergency response facilities or to fire department emergency response units in the field.

11.12.2* The fire department radio communication system shall meet the performance requirements of Chapter 17 of NFPA 1225.

A.11.12.2 The performance of the fire department radio system is a critical component for firefighter safety during emergency operations. NFPA 1225 Chapter 17 (section 17.3.1.2) specifies that the fire department radio communication system shall be designed to provide no less than 95 percent coverage of the jurisdictional area as defined by the AHJ, 95 percent of the time, with a 95 percent confidence factor. If the fire department radio system does not meet this standard, then the AHJ should work with the jurisdiction to establish a compliance program within an expedited time-frame in order to bring the fire department radio system into compliance.

Additional Proposed Changes

File Name	Description	Approved
.1745335594790		
ERCES_NFPA_1_Draft_PC_Final_4-22-25_.docx	FUN TC ERCES Task Group complete Public Comment	

Statement of Problem and Substantiation for Public Comment

Supporting Rational Statement
The Task Group held 5 meetings to prepare this Public Comment based on the direction from the Fundamental Technical Committee to revise the requirements in Section 11.11 with the technical requirements in NFPA 1225.

This proposal accomplishes the following:
1. Adds extracted definitions from NFPA 1225
2. Adds extracted definition for Townhouse Buildings from NFPA 5000
3. Adds a comprehensive new Annex Note for A.11.11 for an explanation of ERCES. Correlates with First Revisions made to NFPA 1225
4. Adds a scoping section
5. Adds permit requirements
6. Adds new requirements for ERCES evaluations for new and existing buildings; provides exemptions for specific buildings the TG felt were low-risk, not needing an ERCES for emergency responder safety
7. Directs all technical requirements to NFPA 1225
8. Adds requirements and Annex Notes for requirements on when buildings must be evaluated to determine if an ERCES is needed within a building
9. Adds requirement for installation of ERCES based on the evaluation of signal strength and quality within a building
10. Add ERCES maintenance requirements
11. Adds a new Section in Chapter 11 (to be placed after ERCES) - 11.12 Fire Department Radio Communications Systems, with a pointer to technical requirements in Chapter 17 of NFPA 1225

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 47-NFPA 1-2025 [Section No. 3.3.174]	Task Group Public Comment
Public Comment No. 49-NFPA 1-2025 [Section No. 11.1.2.2]	Task Group Public Comment

Related Item

• PI 215 & 213

Submitter Information Verification

Submitter Full Name: Bruce Johnson

Organization:	FUN TC ERCES Taks Group, Chair
Affiliation:	FUN TC ERCES Task Group
Street Address:	
City:	
State:	
Zip:	
Submittal Date:	Tue Apr 22 11:16:17 EDT 2025
Committee:	FCC-FUN

~~2.4~~ – Add the following reference
NFPA 1225, *Standard for Emergency Services Communications*, 2022 edition.

E.3 – Add the following reference
NFPA 1225, *Standard for Emergency Services Communications*, 2022 edition.

3.3.174 In-building Emergency Responder Communications Enhancement System.
A combination of components, RF-emitting devices, antennas, cables, power supplies, control circuitry, and programming installed at a specific location to improve wireless communications ~~at that location~~ within the building and between on-scene first responders and communications centers. **[1225**, 2022**]**

Add new definitions:

A.3.3.XX Public Safety Emergency Communications System.
A public safety emergency communications system consists of any technology or system utilized for the reporting, detection, coordination, dispatching, monitoring, or tracking of emergency incidents or emergency response resources, and the support of related activities. [**1225**, 2022]

3.3.XX Frequency License Holder(s).
The person(s) or entity(ies) that hold the license from the licensing authority of the country of jurisdiction for the frequencies being used by both the in-building emergency responder communications enhancement system and the emergency services communications system that it enhances. [**1225**, 2022]

3.3.XX Townhouse Building.
A building that contains three or more attached townhouse units. (BLD-RES) **[5000**, 2024**]**

11.1.2 Permits.

11.1.2.2 In-Building Emergency Responder Communication Enhancement Systems.

~~**11.10.1.1**~~ **11.1.2.1** Where required by the AHJ or Frequency License Holder, an installation permit shall be obtained by the installing contractor and comply with Section 1.13.

~~**11.10.1.2**~~ **11.1.2.2**
Where required by the AHJ or the Frequency License Holder, a renewable permit in accordance with 18.7.7 of NFPA 1225 shall be obtained by the owner or the owner's agent at the conclusion of successful acceptance testing.

11.11* In-Building Emergency Responder Communication Enhancement Systems.

A. 11.11 In-Building Emergency Responder Communication Enhancement Systems (ERCES) are intended to support reliable in-building communications for a broad range of public safety agencies that might be involved in emergency response operations. These systems are not limited solely to fire department use but are designed to support all agencies that have a role in responding to and managing emergencies within buildings or structures.

Such agencies can include:

1) Fire Departments and Firefighting Units – responsible for fire suppression, rescue, and initial incident command.
2) Emergency Medical Services (EMS) – providing pre-hospital medical care and transport.
3) Law Enforcement Agencies – including local police, sheriff's departments, and special tactical units, who may respond to criminal activity, active shooter incidents, or crowd control situations.
4) Hazardous Materials (HAZMAT) Teams – specialized units trained to respond to chemical, biological, radiological, or other hazardous material events.
5) Technical Rescue Teams – engaged in high-angle, confined space, trench, or structural collapse rescues.
6) Emergency Management Agencies – when coordinating larger scale incident response and recovery operations.
7) Specialized Public Safety Units – such as bomb squads, SWAT teams, or canine units that may operate inside buildings during emergencies.

ERCES should be designed to enhance Public Safety Emergency Communications Systems, as well as other modulation technologies where applicable, and should be implemented with the operational needs of all potential responders in mind. This approach ensures effective coordination, responder safety, and successful mitigation of emergency events. These events could include structure fires, medical emergencies, hazardous material releases, law enforcement operations, and mass casualty or active shooter/hostile events.

11.11.1 General.

11.11.1.1 In-Building Emergency Responder Communication Enhancement Systems (ERCES) shall comply with Section 11.11.

11.11.1.2* ERCES is not required to be installed where the existing public safety communication system utilized by the jurisdiction does not have an operational signal at the exterior of the building as defined by the AHJ and the Frequency License Holder.

A. 11.11.1.2 The intent of this requirement is to ensure the signal strength and quality required by NFPA 1225 is available inside the building where a signal is available when measured at the exterior of that building. ERCES cannot enhance communication coverage or quality within a building when there is no functional signal available to the building from the public safety communication system. A properly designed ERCES can enhance (boost) weak signals to achieve the minimum coverage area and signal quality when there is a signal from the existing public safety communication systems that reaches the exterior of the building. A target DAQ would be 3.4 measured outside the building as required by NFPA 1225 Chapter 17 (Section 17.3.1.2.2).

~~**11.10.3**~~ **11.11.1.3** ~~In-building emergency responder communication enhancement systems~~ ERCES shall comply with the design, installation, testing, inspection, and maintenance requirements in NFPA 1225.

11.11.2 Application.
Section 11.11 shall apply to both new and existing buildings, unless otherwise permitted by 11.11.1.2.1 or 11.11.1.2.2.

11.11.2.1* Existing Buildings

A.11.11.2.1
ERCES are only required when the building thresholds listed in section 11.11.2 are exceeded, and the minimum signal strength and quality is not achieved in accordance with the criteria of Chapter 18 of NFPA 1225.

11.11.2.1.1 ERCES shall not be required in existing above ground single-story buildings less than 50,000 gross ft^2.

11.11.2.1.2 ERCES shall not be required in existing dwelling units, one- and two-family detached dwellings, or townhouse buildings.

A.11.11.2.1.2 For additional information about townhouse buildings, see the definition for Apartment Building (3.3.203.2) and the accompanying Annex Note.

11.11.2.1.3* ERCES shall not be required in existing apartment buildings 4 stories or less in height of Type V construction.

11.11.2.2* New Buildings

A.11.11.2.2
ERCES are only required when the building thresholds listed in 11.11.3 are exceeded, and the minimum signal strength and quality is not achieved in accordance with the criteria of Chapter 18 of NFPA 1225.

11.11.2.2.1 ERCES shall not be required in new above ground single-story buildings less than 20,000 gross ft^2.

11.11.2.2.2* ERCES shall not be required in new one-and two-family detached dwellings or townhouse buildings.

A.11.11.2.2.2 For additional information about townhouse buildings, see the definition for Apartment Building (3.3.203.2) and the accompanying Annex Note.

11.11.2.2.3* ERCES shall not be required in new apartment buildings 4 stories or less in height of Type V construction.

~~**11.10.2 ***~~
~~In all new and existing buildings, an approved emergency communication enhancement system shall be installed where the minimum radio signal strength into the building cannot be maintained in accordance with NFPA 1225.~~

~~**A.11.10.2**~~
~~AHJs are cautioned against requiring two-way radio communications enhancement systems in locations such as telecommunications facility equipment rooms where the~~

~~operation of two-way radio devices could impair telecommunication services due to interference. Telecommunications facilities are essential elements of the public safety network, providing communities with connectivity to 911 and E911, as well as processing of alarms and other signals. The telephone network has a large, embedded base of legacy electronic equipment that has not been designed or tested for immunity at the power levels and frequencies commonly used in responder radios. As a result, the use of radios in telecommunications equipment rooms can result in a phone service outage. A 2010 joint study of the effects of responder radios on telecommunications equipment was sponsored by several telecommunications carriers and performed by UL. This study confirmed that telecommunications equipment can be functionally impaired and damaged by close proximity radio operation at common frequencies. To help assure reliability of the phone network, it is recommended that responder radios not be utilized in telecommunications equipment areas. Telecommunications equipment rooms are not publicly accessible areas and the number of incidents requiring responder access are low compared to other commercial occupancies. As these facilities are unique occupancies with such an important role, close cooperation between the telecommunications carrier and the AHJ should be encouraged to assure responder activities are not unduly impaired.~~

~~11.10.4 Listed and Labeled.~~

~~In-building emergency responder communication enhancement systems installed within buildings shall be listed and labeled in accordance with UL 2524, In-building 2-Way Emergency Radio Communication Enhancement Systems.~~

11.11.3 Evaluation testing.

A.11.11.3.

An essential part of determining the need for an emergency responder communications enhancement system (ERCES) is the initial in-building coverage evaluation often referred to as a radio frequency (RF) survey. The purpose of conducting an initial evaluation is to determine if (RF) from the public safety communication system(s)s utilized by the jurisdiction can penetrate the building to provide sufficient signal strength and quality within the building to meet the coverage requirements for both general and critical areas within the building without the need for an emergency responder communications enhancement system.

Earlier editions of the standard for ERCES focused on the testing of signal strength using a measurement of -95dBm. Based on experience and the need for signal quality in addition to signal strength, the testing requirements have evolved. During the evaluation process, it is imperative that both signal strength and signal quality be evaluated for both uplink and downlink communications capabilities. This will include but is not limited to measurements such as DAQ, bit error rate and signal to noise ratio for the technology.

In many areas, the frequency licensing authority requires that signal boosters may be used in weak signal areas only. Therefore, the initial evaluation should be utilized to determine if a building may need complete or partial enhancement where (RF) is not sufficient to meet the required levels.

It is vital to understand that if there is an insufficient signal level from the public safety communications system outside the building, there is no requirement to install an

ERCES within the building. Additionally, there may be multiple public safety communications systems in use by the jurisdiction to ensure coverage for all emergency responders such as fire, law enforcement, EMS and others therefore, all systems in use by emergency responders should be properly evaluated to ensure adequate coverage exist to provide usable signal strength and quality.
[**Extracted from 1225**]

11.11.3.1 Evaluation Testing of Buildings for Compliant Coverage.

11.11.3.1.1* An evaluation of new and existing buildings shall be conducted to determine if adequate RF coverage by the Public Safety Communications System exists within the building to meet the requirements of NFPA 1225 Section 18.8 and Section 18.9 prior to requiring an emergency responder communications enhancement system be installed within the building.

A.11.11.3.1.1.
Buildings can be evaluated during the later phase of construction for a preliminary indication as to whether an ERCES will be required.

In order to accurately evaluate the need of an ERCES in a new building, the building should be complete and in the final occupancy condition. For example, building equipment, furniture, fixtures, and contents can affect the RF signal quality and strength. As this condition does not typically exist until after the Certification of Occupancy (CoO) is issued, the AHJ should make an ERCES evaluation a condition on this issuance of the building permit for the construction of the new building and as a condition on CoO issuance . If a CoO is going to be issued and an ERCES evaluation will still need to occur post CoO issuance, the building owner should also be informed of this requirement.

If an ERCES evaluation is done prior to the issuance of a CoO and it is found an ERCES is required, the AHJ should work with the contractor and owner to allow the issuance of the CoO while the ERCES is being installed. One method to deal with this is for a separate permit to be issued for the ERCES installation that would continue in force after the issuance of the CoO.

11.11.3.1.2 Where the building does not have sufficient signal strength and quality based on an evaluation conducted in accordance with 11.11.3.2, an approved ERCES shall be installed in accordance with NFPA 1225.

11.10.3.1.3 Buildings required to comply with Section 11.11 shall be required to maintain signal strength and quality throughout the life of the building.

11.10.3.2* Evaluation of Existing Buildings.
Where an AHJ determines that an existing building does not have sufficient signal strength and quality within the building, the AHJ shall be authorized to require an evaluation of signal strength and quality in in accordance with 11.11.4.1.

A.11.11.3.2
The requirement in 11.11.3.2 is not intended to apply to buildings that meet the exemptions in 11.11.2.1 which are based on building height, square footage and specific occupancy types.

When a deficiency is discovered in an existing building, typically during an emergency response to the building, the AHJ can determine that an evaluation of the building is warranted. Consideration should be given to not require unnecessary building evaluations unless there is clear evidence that a deficiency exists.

Where determined by the evaluation, a building might require the installation of a new ERCES or enhancement of an existing ERCES.

In such cases, the AHJ should provide a reasonable time for the building owner to have the evaluation completed and, if necessary, a corrective action plan to achieve compliance in accordance with this code.

11.11.4 System Maintenance

11.11.4.1 The ERCES shall be inspected, tested, and maintained in accordance with Chapter 18 of NFPA 1225.

11.11.4.2 The AHJ or Frequency License Holder is authorized to order the immediate shutdown and investigation of an In-Building Emergency Communication Enhancement System when the AHJ or Frequency License Holder suspects the In-Building Emergency Communication Enhancement System is interfering with the Public Safety Emergency Communications System.

11.11.5 Remote Access Shutdown. Where provided, remote access shall comply with Section 18.16 of NFPA 1225.

(INSERT A NEW 11.12 AND RENUMBER THE REMAINING):

11.12 Fire Department Radio Communications Systems.

11.12.1 Scope. The scope of section 11.12 shall apply to radio communication systems utilized to transmit calls for service to fire department emergency response facilities or to fire department emergency response units in the field.

11.12.2* The fire department radio communication system shall meet the performance requirements of Chapter 17 of NFPA 1225.

A.11.12.2 The performance of the fire department radio system is a critical component for firefighter safety during emergency operations. NFPA 1225 Chapter 17 (section 17.3.1.2) specifies that the fire department radio communication system shall be designed to provide no less than 95 percent coverage of the jurisdictional area as defined by the AHJ, 95 percent of the time, with a 95 percent confidence factor. If the fire department radio system does not meet this standard, then the AHJ should work with the jurisdiction to establish a compliance program within an expedited time-frame in order to bring the fire department radio system into compliance.

Supporting Rational Statement

ERCES Task Group Public Comment

(Task Group Report for Second Draft Meeting)

The Task Group held 5 meetings to prepare this Public Comment based on the direction from the Fundamental Technical Committee to revise the requirements in Section 11.11 with the technical requirements in NFPA 1225.

This proposal accomplishes the following:

1. Adds extracted definitions from NFPA 1225
2. Adds extracted definition for Townhouse Buildings from NFPA 5000
3. Adds a comprehensive new Annex Note for A.11.10 for an explanation of ERCES. Correlates with First Revisions made to NFPA 1225
4. Adds a scoping section
5. Adds permit requirements
6. Adds new requirements for ERCES evaluations for new and existing buildings; provides exemptions for specific buildings the TG felt were low-risk, not needing an ERCES for emergency responder safety
7. Directs all technical requirements to NFPA 1225
8. Adds requirements and Annex Notes for requirements on when buildings must be evaluated to determine if an ERCES is needed within a building
9. Adds requirement for installation of ERCES based on the evaluation of signal strength and quality within a building
10. Add ERCES maintenance requirements
11. Adds a new Section in Chapter 11 (to be placed after ERCES) - 11.11 Fire Department Radio Communications Systems, with a pointer to technical requirements in Chapter 17 of NFPA 1225

Public Comment No. 65-NFPA 1-2025 [Section No. 11.11]

11.11* In-Building Emergency Responder Communication Enhancement Systems.

11.11 * In-Building Emergency Responder Communication Enhancement Systems .

A.11.11 Two-way radio communication enhancement systems provide for greater flexibility and safety for emergency responders during in-building operations.

11.11. 1 In-Building Emergency Responder Communication Enhancement Systems (ERCES) shall comply with Section 11.11.

11.11.1.2 An in-building ERCES is not required to be installed where the existing public safety communication system that is utilized by the jurisdiction does not have an operational signal strength and quality at the exterior of the building as defined by the AHJ and the Frequency License Holder.

11.11.1.3 ERCES shall not be required in new above ground single-story buildings less than 12,000 gross square feet.

~~**11.11.1**~~ **11.11.2 Permits.**

~~**11.11.1.1**~~ **11.11.2.1 Where required by the AHJ, an installation permit shall comply with Section 1.13.**

~~**11.11.1.2**~~ **11.11.2.2 Where required by the AHJ, a renewable permit in accordance with 18.7.7 of NFPA 1225 shall be issued at the conclusion of successful acceptance testing.**

~~**11.11.2 * In all new and existing buildings, an approved emergency communication enhancement system shall be installed where the minimum radio signal strength into the building cannot be maintained in accordance with NFPA 1225.**~~

~~**A.11.11.2 AHJs are cautioned against requiring two-way radio communications enhancement systems in locations such as telecommunications facility equipment rooms where the operation of two-way radio devices could impair telecommunication services due to interference. Telecommunications facilities are essential elements of the public safety network, providing communities with connectivity to 911 and E911, as well as processing of alarms and other signals. The telephone network has a large, embedded base of legacy electronic equipment that has not been designed or tested for immunity at the power levels and frequencies commonly used in responder radios. As a result, the use of radios in telecommunications equipment rooms can result in a phone service outage. A 2010 joint study of the effects of responder radios on telecommunications equipment was sponsored by several telecommunications carriers and performed by UL. This study confirmed that telecommunications equipment can be functionally impaired and damaged by close proximity radio operation at common frequencies. To help assure reliability of the phone network, it is recommended that responder radios not be utilized in telecommunications equipment areas. Telecommunications equipment rooms are not publicly accessible areas and the number of incidents**~~

~~requiring responder access are low compared to other commercial occupancies. As these facilities are unique occupancies with such an important role, close cooperation between the telecommunications carrier and the AHJ should be encouraged to assure responder activities are not unduly impaired.~~

11.11.3 Evaluation Testing of New and Existing Buildings for Compliant Coverage. An evaluation of new and existing buildings shall be conducted to determine if adequate (RF) coverage by the Public Safety Communications System exists within the building to meet the requirements of Section 18.8 and Section 18.9 of NFPA 1225 prior to requiring an emergency responder communications enhancement system within the building.

A.11.11.3 An essential part of determining the need for an emergency responder communications enhancement system (ERCES) is the initial in-building coverage evaluation often referred to as a radio frequency (RF) survey. The purpose of conducting an initial evaluation is to determine if (RF) from the public safety communication system(s)s utilized by the jurisdiction can penetrate the building to provide sufficient signal strength and quality within the building to meet the coverage requirements for both general and critical areas within the building without the need for an emergency responder communications enhancement system.

Earlier editions of the standard for ERCES focused on the testing of signal strength using a measurement of -95dBm. Based on experience and the need for signal quality in addition to signal strength, the testing requirements have evolved. During the evaluation process, it is imperative that both signal strength and signal quality be evaluated for both uplink and downlink communications capabilities. This will include but is not limited to measurements such as DAQ, bit error rate and signal to noise ratio for the technol.

In many areas, the frequency licensing authority requires that signal boosters may be used in weak signal areas only. Therefore, the initial evaluation should be utilized to determine if a building may need complete or partial enhancement where (RF) is not sufficient to meet the required levels.

It is vital to understand that if there is an insufficient signal level from the public safety communications system outside the building, there is no requirement to install an ERCES within the building. Additionally, there may be multiple public safety communications systems in use by the jurisdiction to ensure coverage for all emergency responders such as fire, law enforcement, EMS and others therefore, all systems in use by emergency responders should be properly evaluated to ensure

adequate coverage exist to provide usable signal strength and quality.

~~11.11.3~~ 11.11.4 In-building emergency responder communication enhancement systems shall comply with the design, installation, testing, inspection, and maintenance requirements in NFPA 1225.

~~11.11.4~~ 11.11.5 Listed and Labeled. In-building emergency responder communication enhancement systems installed within buildings shall be listed and labeled in accordance with UL 2524, In-building 2-Way Emergency Radio Communication Enhancement Systems.

11.11.1 *

In all new and existing buildings, an approved emergency communication enhancement system shall be installed where the minimum radio signal strength into the building cannot be maintained in accordance with NFPA 1225.

11.11.1.1

Where required by the AHJ, an installation permit shall comply with Section 1.13.

11.11.2

In-building emergency responder communication enhancement systems shall comply with the design, installation, testing, inspection, and maintenance requirements of NFPA 1225.

11.11.3 Listed and Labeled.

In-building emergency responder communication enhancement systems installed within buildings shall be listed and labeled in accordance with UL 2524, *In-building 2-Way Emergency Radio Communication Enhancement Systems*.

Additional Proposed Changes

File Name	Description	Approved
AFAA_ERCES_Public_Comment_Submitted.docx	Word doc of the complete submittal and substantiation	

Statement of Problem and Substantiation for Public Comment

This public comment (PC) seeks to accomplish two objectives.
1. Provide clear and enforceable language to properly evaluate the existing public safety communications systems signal strength, and quality inside buildings utilizing defined performance measures within NFPA 1225 to determine if an ERCES is needed.
2. Provide a reasonable exception for when the ERCES would not be necessary in certain buildings
This PC is needed because as currently written, NFPA 1 only addresses the installation of an ERCES and does not provide the necessary requirements to determine if an ERCES is needed. The Frequency Licensing Authority (FCC) requires signal boosters shall only be used in weak signal areas inside buildings. Therefore, it is necessary to have requirements in NFPA 1 that address the need for evaluating existing radio frequency (RF) signal strength, quality, and coverage from the public safety communications system prior to requiring the installation of an ERCES. Requiring unnecessary ERCES will contribute to noise and interference that may cause the entire public safety communications system to fail leaving emergency responders with no communication within their jurisdiction not just inside the building.
The 12K exemption in new section 11.11.1.3 aligns with the 2024 and 2027 edition of the International Fire Code (IFC).

Related Item

- None

Submitter Information Verification

Submitter Full Name:	Tim Knisely
Organization:	Automatic Fire Alarm Association
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Street Address:	
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Submittal Date:	Thu Apr 24 10:31:24 EDT 2025
Committee:	FCC-FUN

2024 Edition of NFPA 1 – ERCES Requirements

11.11* In-Building Emergency Responder Communication Enhancement Systems.

A.11.11 Two-way radio communication enhancement systems provide for greater flexibility and safety for emergency responders during in-building operations.

11.11.1 In-Building Emergency Responder Communication Enhancement Systems (ERCES) shall comply with Section 11.11.

11.11.1.2 An in-building ERCES is not required to be installed where the existing public safety communication system that is utilized by the jurisdiction does not have an operational signal strength and quality at the exterior of the building as defined by the AHJ and the Frequency License Holder.

11.11.1.3 ERCES shall not be required in new above ground single-story buildings less than 12,000 gross square feet.

~~**11.11.1**~~ **11.11.2 Permits.**

~~**11.11.1.1**~~ **11.11.2.1** Where required by the AHJ, an installation permit shall comply with Section 1.13.

~~**11.11.1.2**~~ **11.11.2.2** Where required by the AHJ, a renewable permit in accordance with 18.7.7 of NFPA 1225 shall be issued at the conclusion of successful acceptance testing.

~~**11.11.2*** In all new and existing buildings, an approved emergency communication enhancement system shall be installed where the minimum radio signal strength into the building cannot be maintained in accordance with NFPA 1225.~~

~~**A.11.11.2** AHJs are cautioned against requiring two-way radio communications enhancement systems in locations such as telecommunications facility equipment rooms where the operation of two-way radio devices could impair telecommunication services due to interference. Telecommunications facilities are essential elements of the public safety network, providing communities with connectivity to 911 and E911, as well as processing of alarms and other signals. The telephone network has a large, embedded base of legacy electronic equipment that has not been designed or tested for immunity at the power levels and frequencies commonly used in responder radios. As a result, the use of radios in telecommunications equipment rooms can result in a phone service outage. A 2010 joint study of the effects of responder radios on telecommunications equipment was sponsored by several telecommunications carriers and performed by UL. This study confirmed that telecommunications equipment can be functionally impaired and damaged by close proximity radio operation at common frequencies. To help assure reliability of the phone network, it is recommended that responder radios not be utilized in telecommunications~~

~~equipment areas. Telecommunications equipment rooms are not publicly accessible areas and the number of incidents requiring responder access are low compared to other commercial occupancies. As these facilities are unique occupancies with such an important role, close cooperation between the telecommunications carrier and the AHJ should be encouraged to assure responder activities are not unduly impaired.~~

11.11.3 Evaluation Testing of New and Existing Buildings for Compliant Coverage. An evaluation of new and existing buildings shall be conducted to determine if adequate (RF) coverage by the Public Safety Communications System exists within the building to meet the requirements of Section 18.8 and Section 18.9 of NFPA 1225 prior to requiring an emergency responder communications enhancement system within the building.

A.11.11.3 An essential part of determining the need for an emergency responder communications enhancement system (ERCES) is the initial in-building coverage evaluation often referred to as a radio frequency (RF) survey. The purpose of conducting an initial evaluation is to determine if (RF) from the public safety communication system(s)s utilized by the jurisdiction can penetrate the building to provide sufficient signal strength and quality within the building to meet the coverage requirements for both general and critical areas within the building without the need for an emergency responder communications enhancement system.

Earlier editions of the standard for ERCES focused on the testing of signal strength using a measurement of -95dBm. Based on experience and the need for signal quality in addition to signal strength, the testing requirements have evolved. During the evaluation process, it is imperative that both signal strength and signal quality be evaluated for both uplink and downlink communications capabilities. This will include but is not limited to measurements such as DAQ, bit error rate and signal to noise ratio for the technol.

In many areas, the frequency licensing authority requires that signal boosters may be used in weak signal areas only. Therefore, the initial evaluation should be utilized to determine if a building may need complete or partial enhancement where (RF) is not sufficient to meet the required levels.

It is vital to understand that if there is an insufficient signal level from the public safety communications system outside the building, there is no requirement to install an ERCES within the building. Additionally, there may be multiple public safety communications systems in use by the jurisdiction to ensure coverage for all emergency responders such as fire, law enforcement, EMS and others therefore, all systems in use by emergency responders should be properly evaluated to ensure adequate coverage exist to provide usable signal strength and quality.

~~**11.11.3**~~ **11.11.4** In-building emergency responder communication enhancement systems shall comply with the design, installation, testing, inspection, and maintenance requirements in NFPA 1225.

~~11.11.4~~ 11.11.5 **Listed and Labeled.** In-building emergency responder communication enhancement systems installed within buildings shall be listed and labeled in accordance with UL 2524, In-building 2-Way Emergency Radio Communication Enhancement Systems.

Statement of Problem and Substantiation for Public Comment

This public comment (PC) seeks to accomplish two objectives.

1. Provide clear and enforceable language to properly evaluate the existing public safety communications systems signal strength, and quality inside buildings utilizing defined performance measures within NFPA 1225 to determine if an ERCES is needed.
2. Provide a reasonable exception for when the ERCES would not be necessary in certain buildings

This PC is needed because as currently written, NFPA 1 only addresses the installation of an ERCES and does not provide the necessary requirements to determine if an ERCES is needed. The Frequency Licensing Authority (FCC) requires signal boosters ***shall*** only be used in weak signal areas inside buildings. Therefore, it is necessary to have requirements in NFPA 1 that address the need for evaluating existing radio frequency (RF) signal strength, quality, and coverage from the public safety communications system prior to requiring the installation of an ERCES. Requiring unnecessary ERCES will contribute to noise and interference that may cause the entire public safety communications system to fail leaving emergency responders with no communication within their jurisdiction not just inside the building.

The 12K exemption in new section 11.11.1.3 aligns with the 2024 and 2027 edition of the International Fire Code (IFC).

Public Comment No. 60-NFPA 1-2025 [New Section after 11.13.4.2]

Firefighter Air Replenishment Systems (FARS)

Firefighter Air Replenishment Systems (FARS), where required, shall be approved by the Authority Having Jurisdiction in accordance with 13.1.

Where a Firefighter Air Replenishment System is installed the system shall be tested and maintained in accordance with 4.5.8 and comply with NFPA 1989.

Annex a Firefighter Air Replenishment Systems (FARS) is fire service feature that a jurisdiction may voluntarily adopt as a local ordinance to reduce community risk by limiting firefighter respiratory exposure to health hazards. Where approved, systems should be regularly maintained in accordance with jurisdictional operation policies and national air quality standards.

Statement of Problem and Substantiation for Public Comment

The proposed inclusion of this Section in NFPA 1 establishes clear requirements for the approval, testing, and maintenance of Firefighter Air Replenishment Systems (FARS), a growing life-safety feature in large or complex buildings. This Section ensures that when FARS are required by local code or jurisdictional policy, they are subject to review and approval by the Authority Having Jurisdiction (AHJ) in accordance with existing provisions in Section 13.1, supporting consistency in permitting and compliance procedures. This Section reinforces the importance of ongoing system reliability by referencing the general inspection and testing requirements in Section 4.5.8 and aligning air quality standards with NFPA 1989, which governs the purity and monitoring of breathing air for emergency services. These additions enhance firefighter safety, operational readiness, and occupant protection by ensuring FARS are installed properly, maintained regularly, and deliver safe, breathable air in accordance with national standards.

Related Item

• PI 257 • PI 258 • FR 371

Submitter Information Verification

Submitter Full Name: Gary West
Organization: Firefighter Air Coalition
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 23 13:48:06 EDT 2025
Committee: FCC-FUN

Public Comment No. 32-NFPA 1-2025 [Section No. 18.3.1 [Excluding any Sub-Sections]]

An approved water supply capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities, buildings, or portions of buildings are hereafter constructed ~~or~~ , undergoes a change in occupancy hazard in accordance with table 18.3.2, or moved into the jurisdiction.

Statement of Problem and Substantiation for Public Comment

With the additional scope of 18.3.2 and Table 18.3.2, 18.3.1 needs to be revised to address the expanded scope. This PC provides language to cover that scope.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 4-NFPA 1-2025 [Section No. 18.3.2 [Excluding any Sub-Sections]]	Same topic but different code section.
Public Comment No. 9-NFPA 1-2025 [Section No. 18.3.2 [Excluding any Sub-Sections]]	Same topic but different code section.

Related Item

- FR-156 and PI 69

Submitter Information Verification

Submitter Full Name: Anthony Apfelbeck
Organization: Altamonte Springs Building & Fire Safety Department
Street Address:
City:
State:
Zip:
Submittal Date: Fri Apr 04 14:04:34 EDT 2025
Committee: FCC-FUN

Public Comment No. 4-NFPA 1-2025 [Section No. 18.3.2 [Excluding any Sub-Sections]]

When 50 percent or greater of the square footage of a building undergoes a change of occupancy to a more restrictive hazard classification in accordance with Table 18.3.2, an approved water supply capable of supplying the required fire flow for fire protection in accordance with Section 18.4 shall be provided.

Table 18.3.2 Hazard Categories and Classifications

4

Hazard Category	Occupancy Classification
1 (highest hazard)	Industrial or ~~storage occupancies~~ Storage with high hazard contents
2	~~Health care, detention and correctional, residential board and care~~
~~3~~	~~Assembly, educational, day care, ambulatory health care, residential, mercantile, business, general and special-purpose industrial, ordinary hazard storage~~
Assembly, Educational, Day Care, Health Care, Ambulatory Health Care, Detention and Correctional, Residential, Residential Board and Care, Business, Mercantile, Industrial or Storage with ordinary hazard contents, General and Special-Purpose Industrial	
3 (lowest hazard)	Industrial or ~~storage occupancies~~ Storage with low hazard contents

[~~**101:** Table 43.7.3~~]

Statement of Problem and Substantiation for Public Comment

This PC addresses PI 69 and FR 156. During the First Draft Meeting, there was some concerns raised by TC members that the hazard table from NFPA 101 was not necessarily appropriate for the application of fire flow design. The author of PI 69 promised to look at this issue. After a review, the author of PI 69 agrees with the concern raised at the First Draft Meeting. Therefore, the hazard category has been revised and also two of the categories have been consolidated. The new table only addresses two extreme situations...where low hazard industrial or storage moves to ordinary or high hazards and when moderate content occupancies move to industrial or storage with high hazard contents. This change will significantly reduce the number of occupancy changes where a review of existing fire flow will be applied due to a change of occupancy. This PC and PC-9 are two options for TC to consider on this issue.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 9-NFPA 1-2025 [Section No. 18.3.2 [Excluding any Sub-Sections]]	Two Options for the TC.
Public Comment No. 9-NFPA 1-2025 [Section No. 18.3.2 [Excluding any Sub-Sections]]	
Public Comment No. 32-NFPA 1-2025 [Section No. 18.3.1 [Excluding any Sub-Sections]]	

Related Item

• FR-156 and PI 69

Submitter Information Verification

Submitter Full Name: Anthony Apfelbeck
Organization: Altamonte Springs Building and Fire Safety Department
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City:
State:
Zip:
Submittal Date: Mon Feb 10 13:39:46 EST 2025
Committee: FCC-FUN

Public Comment No. 9-NFPA 1-2025 [Section No. 18.3.2 [Excluding any Sub-Sections]]

When 50 percent or greater of the square footage of a building undergoes a change of occupancy to a more restrictive hazard classification in accordance with Table 18.3.2, an approved water supply capable of supplying the required fire flow for fire protection in accordance with Section 18.4 shall be provided.

Table 18.3.2 Hazard Categories and Classifications

Hazard Category	Occupancy Classification
1 (highest hazard)	Industrial or ~~storage occupancies~~ Storage with high hazard contents
2	~~Health care, detention and correctional, residential board and care~~ Mercantile, Industrial or Storage with ordinance hazard contents, General and Special-Purpose Industrial
3	Assembly, ~~educational~~ Educational , ~~day care, ambulatory health care, residential, mercantile, business, general and special-purpose industrial, ordinary hazard storage~~ Day Care, Health Care, Ambulatory Health Care, Residential, Residential Board and Care, Business, Detention and Correctional
4 (lowest hazard)	Industrial or ~~storage occupancies with~~ Storage with low hazard contents

[~~**101:** Table 43.7.3~~]

Statement of Problem and Substantiation for Public Comment

This PC addresses PI 69 and FR 156. During the First Draft Meeting, there was some concerns raised by TC members that the hazard table from NFPA 101 was not necessarily appropriate for the application of fire flow design. The author of PI 69 promised to look at this issue. After a review, the author of PI 69 agrees with the concern raised at the First Draft Meeting. Therefore, the hazard category has been revised to more closely align with the ISO Guide for Determining Fire Flow Occupancy Hazards and that actual hazard of contents of the occupancies within the tables. This PC, along with PC 4, gives the TC two options on this issue.

Related Public Comments for This Document

Related Comment	Relationship
Public Comment No. 4-NFPA 1-2025 [Section No. 18.3.2 [Excluding any Sub-Sections]]	Different Options
Public Comment No. 4-NFPA 1-2025 [Section No. 18.3.2 [Excluding any Sub-Sections]]	
Public Comment No. 32-NFPA 1-2025 [Section No. 18.3.1 [Excluding any Sub-Sections]]	

Related Item

- FR-156 and PI 69

Submitter Information Verification

Submitter Full Name: Anthony Apfelbeck

Organization: Altamonte Springs Building and Fire Safety

Street Address:	
City:	
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Submittal Date:	Fri Feb 21 08:55:24 EST 2025
Committee:	FCC-FUN

Public Comment No. 3-NFPA 1-2025 [New Section after 18.3.2.1]

Insert the following new language from CI 35 and PI 71.

18.3.3

An approved water supply capable of supplying fire flow for fire protection shall be provided for all new commercial Stationary Energy Storage Systems and Large-Scale Photovoltaic Electrical Supply Stations.

18.3.3.1

The fire flow, duration and locations of water supplies for commercial Stationary Energy Storage Systems and Large Scale-Photvoltaic Electrical Supply Stations shall be determined through an engineering analysis of the hazard and exposures. The fire flow, duration and locations of water supplies shall be approved by the AHJ.

18.3.3.2

Where no adequate or reliable water distribution system exists that is proximate to an commercial Stationary Energy Storage System or Large Scale-Photovoltaic Electrical Supply Station, approved reservoirs, pressure tanks, elevated tanks, fire department tanker shuttles, or other approved systems capable of providing the require fire flow shall be permitted.

A.18.3.3 This section is intended to apply to both private, public and utility owned facilities. Large-Scale Photovoltaic Electrical Supply Stations includes installations that are at least 5 megawatts (MW) in accordance with the scope as addressed in NFPA 70 Article 691. Commercial Energy Storage System is in intended to include Energy Storage System Walk-In Units as defined by NFPA 855.

A.18.3.3.1 The engineering analysis to determine the required water supply should include a review of the exposures to and from the ESS and photovoltaic equipment. This would include the potential for wildfire exposure to the subject equipment. In addition, the engineering analysis to determine the required water supply should consider the potential impact of the loss of the ESS and photovoltaic equipment to the customers that are serviced.

Chapter 3: Extract the definition of Stationary Energy Storage System from NFPA 855 into Chapter 3 of NFPA 1.

Statement of Problem and Substantiation for Public Comment

This PC language is in response to CI 35 and PI 71. The justification is similar to what was provided to PI 71:
This PC addresses an issue raised during the FCC-FUN Pre-First Draft Meeting regarding the lack of requirements for fire protection water supplies for ESS and PV system. In order to address this gap and the developing hazard, this PI mandates:
1. Water supplies for fire protection be provided for new Fixed ESS and large scale PV systems utilizing terms/thresholds from NFPA 855 and NFPA 70.
2. A engineering analysis of the risk and exposures be utilized to determine water supply, locations and duration for PV and ESS systems.
3. Allows for water supplies to be provided through other methods than a water distribution system is one is not available.
4. Provides Annex text to support the intent of the applicable code provisions in the PI.

Based on some of the discussion at the First Draft Meeting, this PC modifies CI 35 and PI 71 by striking the following language:
18.3.2.1.1
The minimum fire flow and duration for Large Scale-Photovoltaic Electrical Supply Stations shall at least 500 GPM with a 1 hour duration.
18.3.2.1.2
The minimum fire flow and duration for commercial Stationary Energy Storage Systems shall be 250 GPM

with a 1 hour duration.

The reason for the above language being struck is the concerns raised over providing minimum fire flows in very remote locations. The determination of minimum fire flows is not left to engineering judgement in coordination with the AHJ. Based on the unique environments, unique equipment installations and individual department operations, it appears leaving the fire flow to engineering judgement is appropriate.

Related Item

• CI 35 and PI 71

Submitter Information Verification

Submitter Full Name: Anthony Apfelbeck
Organization: Altamonte Springs Building and Fire Safety Department
Street Address:
City:
State:
Zip:
Submittal Date: Mon Feb 10 13:24:14 EST 2025
Committee: FCC-FUN

Public Comment No. 2-NFPA 1-2025 [New Section after 18.5.2]

Insert a new 18.5.17 and Annex Text as follows:

18.5.1.7 Fire Hydrants for New Buildings with Standpipe Systems

18.5.1.7.1 Where a new building is protected by a standpipe system installed in accordance with NFPA 14, a fire hydrant shall be within 100 feet of the fire department connection for the standpipe system.

18.5.1.7.2 The location of the fire hydrant to the fire department connection for the standpipe system shall be permitted to exceed 100 feet subject ot the approval of the AHJ.

A.18.5.1.7 See NFPA 14 Section 15.4.2.3.6 and 15.4.2.3.7.

Statement of Problem and Substantiation for Public Comment

This PC is the same language and justification for PI-67. The TC resolved PI-67 with justification stating "It is not necessary for NFPA 1 to bring in requirements from all other NFPA documents." This is correct, the goal is not to bring in all other requirements from other NFPA documents. However, we should bring in requirements from other documents into 1 when it is germane to the NFPA 1 content and will assist the AHJ. Chapter 18 specifically addressed Civil Site Design including fire hydrant placement. Chapter 18 is the primary location where AHJ's go for the code language addressing civil site plan review. Since there is another NFPA code section that specifically addresses the need for fire hydrant placement in another document, it is clearly appropriate to make the AHJ, contractors and design team aware of the NFPA 14 fire hydrant placement provision in NFPA 1 Chapter 18 so it is not missed. The NFPA 1 document references/extracts numerous provisions from other NFPA Standards that are arguably much less applicable to the content of NFPA 1 and much less likely to be applicable to a large number of new construction projects. NFPA 1 is the naturally intuitive document for the AHJ to goto for fire hydrant locations. So, the important question here is "Why would we not want to make the AHJ aware of this important provision from NFPA 14 within NFPA 1?" Are we trying trying to save ink?

Related Item

• PI 67

Submitter Information Verification

Submitter Full Name: Anthony Apfelbeck
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Street Address:
City:
State:
Zip:
Submittal Date: Mon Feb 10 13:04:27 EST 2025
Committee: FCC-FUN

Public Comment No. 7-NFPA 1-2025 [New Section after A.1.2]

Add a new 1.3 as follows:

A.1.3 Tentative Interim Amendments (TIA) and erratas can be issued after publication of this Code or reference standards by the various NFPA Technical Committees. A TIA is an emergency amendment to a specific edition of a Code or Standard. An errata is an editorial correction to a specific edition of this Code or referenced standard. AHJs should be aware of TIAs and erratas and should determine how they apply within their local adoption processes and enforcement of the Code.

Statement of Problem and Substantiation for Public Comment

PC 7 addresses the concerns raised by the TC in PI 60, PI 1, and PI 2. The TC stated in the resolution that the issue could be addressed in annex text. This PC does as directed by the TC. The justification for PI 60, PI 1 and PI 2 is still valid and applicable to this PC. This PC makes the AHJ aware that TIAs and erratas exist and the AHJ should consider them within their adoption and application process.

Related Item

• PI 1, 2, 60

Submitter Information Verification

Submitter Full Name: Anthony Apfelbeck
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Street Address:
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Zip:
Submittal Date: Tue Feb 11 08:55:32 EST 2025
Committee: FCC-FUN

Public Comment No. 39-NFPA 1-2025 [New Section after A.1.7.8.3]

TITLE OF NEW CONTENT

A.1.7.14.2

The determination of when or if portions of a building can be safely occupied during the construction period can be influenced by several factors. For example, there may be different conditions to be evaluated for the construction of a new building versus a renovation or alteration project for an existing building. The allowed time frame for the period for the TCO should be determined in consultation with other AHJ's including the building official. When contemplating issuance of a TCO, factors to consider include:

1. All fire and life safety systems are in service.

2. All required means of egress provisions including normal lighting and emergency lighting and marking of the means of egress are provided to code, and access to

required exits is not blocked.

3. Any hazards, storage and processes are protected as required by the code.

4. The building or portions of the building can be safely occupied as determined by the authority having jurisdiction. This may involve the use of supplemental or

administrative provisions such as the use of a fire watch.

5. Adequate separation is provided between the area to be temporarily occupied and the adjacent work areas involving construction activity.

Statement of Problem and Substantiation for Public Comment

This public comment is submitted on behalf of a Task Group that was appointed in June 2024 to address temporary use conditions in buildings that were not yet issued a permanent certificate of occupancy (CoO). The task group consists of:

Anthony Apfelbeck-Altamonte Springs Building and Fire Safety Department
Ken Bush-Maryland State fire marshal's office
Bruce Johnson-UL Solutions
Steven Sawyer-New England Association of Fire Marshals
Robert Solomon-SLS Consulting/SOCOTEC

The essence of the comment is to provide guidance to AHJ's that would allow some level of flexibility for portions, or in some cases the entire building to be occupied before every fire protection and life safety feature has been fully accepted to show compliance with the approved plans and the CoO was issued. The proposed language gives leeway to the AHJ to allow tenant and occupant move-in before the final certificate of occupancy is issued. The necessary guidance is included in an annex note that lists the different factors that should be considered prior to making the decision. It also points out the need to coordinate any such temporary accommodation with other AHJ's including but not limited to the building official.

The revised language is necessary as at present, the code offers no guidance or direction concerning move-in options as the project approaches its final completion stage. Since every case and circumstance is different, the task group considered but did not include a specific timeframe for how long the TCO should be valid for. This is part of the evaluation and decision process that can be made for each request.

See the related Public Comment for Section 1.7.14.1

Related Item

• CI 9 AND PI 63

Submitter Information Verification

Submitter Full Name: Robert Solomon
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Street Address:
City:
State:
Zip:
Submittal Date: Fri Apr 18 13:11:49 EDT 2025
Committee: FCC-FUN

Public Comment No. 62-NFPA 1-2025 [New Section after C.2.5]

Reinstate Annex D from prior addition.

Statement of Problem and Substantiation for Public Comment

Annex D in NFPA 1 serves a critical role by providing non-mandatory but informative guidance on the use and implementation of Firefighter Air Replenishment Systems (FARS). As an annex, it helps Authorities Having Jurisdiction (AHJs), designers, and fire departments better understand the design intent, operational benefits, and safety considerations associated with these systems. Annex D supports jurisdictions that are considering the adoption of FARS as a local ordinance by offering context, background, and best practices without imposing mandatory requirements.

Maintaining Annex D in NFPA 1 is critical as it supports NFPA's mission to advance firefighter health, safety, and operational effectiveness. Firefighter Air Replenishment Systems (FARS) have been increasingly adopted in buildings across the country over the past several years, demonstrating their value in real-world applications. These systems enable firefighters to quickly refill their SCBA without exiting hazardous environments, thereby minimizing exposure to smoke, heat, and toxic gases. As a result, FARS contribute directly to contemporary fire service strategies focused on reducing health risks and maximizing operational efficiency—particularly in high-rise, large-area, and complex structures. Including Annex D ensures that jurisdictions, designers, and fire officials have access to essential background, technical guidance, and best practices for systems already in place, reinforcing the relevance and applicability of the standard as FARS become more common in the built environment.

The importance of FARS is reinforced by research from the Fire Protection Research Foundation. The report titled "An Analysis of Firefighter Breathing Air Replenishment Systems" (available at https://www.nfpa.org/education-and-research/research/fire-protection-research-foundation/projects-and-reports/an-analysis-of-firefighter-breathing-air-replenishment-systems) offers a comprehensive analysis of the operational challenges FARS address and their potential to improve firefighter safety and effectiveness. The continued inclusion of Annex D ensures that this evolving and research-backed information remains accessible to code users, supporting informed decision-making at the local level while reinforcing NFPA's commitment to evidence-based standards development.

Related Item

• PI 257 • PI 258 • FR 271

Submitter Information Verification

Submitter Full Name: Gary West
Organization: Firefighter Air Coalition
Street Address:
City:
State:
Zip:
Submittal Date: Wed Apr 23 13:59:20 EDT 2025
Committee: FCC-FUN

Committee Input No. 174-NFPA 1-2024 [Global Input]

See attached word document for changes to Chapter 6

Supplemental Information

File Name	Description	Approved
CI-174_Extracts_Ch6.docx		

Submitter Information Verification

Committee: FCC-FUN

Submittal Date: Mon Jul 01 08:55:07 EDT 2024

Committee Statement

Committee Statement: The changes are to align with the direction from the Correlating Committee based on recommendations from the correlating committee task group on extract consistency. The definitions for occupancies can be found in chapter 3 and the additional requirements that are deleted are not necessary for most inspections, but if deemed necessary can be found in NFPA 101.

Response Message: CI-174-NFPA 1-2024

Ballot Results

This item has not been balloted

[Delete all content in Chapter 6 and replace with the following]

Chapter 6 Classification of Occupancy.

6.1 Classification of Occupancy.

6.1.1 General.

The occupancy of a building or structure, or portion of a building or structure, shall be classified in accordance with NFPA 101 as one of the following:

(1) Special Structures
(2) Assembly (*See 3.3.203.3)*
(3) Educational (*See 3.3.203.10)*
(4) Day Care (*See 3.3.203.7)*
(5) Health Care (*See 3.3.203.11)*
(6) Ambulatory Health Care (*See 3.3.203.1)*
(7) Detention and Correctional (*See 3.3.203.8)*
(8) Residential (*See 3.3.203.29)*
(9) Residential Board and Care (*See 3.3.203.28)*
(10) Mercantile (*See 3.3.203.19)*
(11) Business (*See 3.3.203.5)*
(12) Industrial (*See 3.3.203.15)*
(13) Storage (*See 3.3.203.31)*

6.1.2 Multiple, Mixed, and Separated Occupancies.

Multiple occupancies, mixed occupancies, and separated occupancies shall be addressed in accordance with NFPA 101.

Committee Input No. 2-NFPA 1-2024 [Global Input]

Update extracts in 2.4 and F.3 from the following documents to the most current edition at the second draft meeting as shown below (based on availability of the second draft report).

NFPA 10, 2026 edition
NFPA 25, 2026 edition
NFPA 30, 2027 edition
NFPA 36, 2025 edition
NFPA 52, 2026 edition
NFPA 55, 2026 edition
NFPA 70, 2026 edition
NFPA 96, 2027 edition
NFPA 101, 2027 edition
NFPA 211, 2027 edition
NFPA 220, 2027 edition
NFPA 241, 2027 edition
NFPA 303, 2026 edition
NFPA 307, 2026 edition
NFPA 312, 2026 edition
NFPA 407, 2027 edition
NFPA 415, 2026 edition
NFPA 470, 2027 edition
NFPA 660, 2024 edition
NFPA 805, 2025 edition
NFPA 855, 2026 edition
NFPA 1124, 2026 edition
NFPA 1140, 2027 edition
NFPA 1142, 2027 edition
NFPA 1750, 2026 edition
NFPA 5000, 2027 edition
NFPA 30A, 2027 edition
NFPA 30B, 2027 edition
NFPA 59A, 2026 edition
NFPA 88A, 2027 edition
NFPA 90A, 2027 edition

Submitter Information Verification

Committee: FCC-FUN
Submittal Date: Sun Jun 23 10:57:11 EDT 2024

Committee Statement

Committee Statement: These documents are currently in cycle but are expected to finish their Second Draft stage prior to this standard's Second Draft meeting. At the Second Draft stage, the Technical Committee will review the extracts from these documents and will update extracted text as needed.

Response Message: CI-2-NFPA 1-2024

Ballot Results

This item has not been balloted

Committee Input No. 3-NFPA 1-2024 [Global Input]

Referenced documents in Section 2.3 and F.1.2 will be updated to the most current edition at the second draft meeting.

Submitter Information Verification

Committee: FCC-FUN

Submittal Date: Sun Jun 23 11:01:12 EDT 2024

Committee Statement

Committee Statement: Reference publications will be updated to the most current edition at second draft as required by the NFPA Manual of Style.

Response Message: CI-3-NFPA 1-2024

Ballot Results

This item has not been balloted

Committee Input No. 11-NFPA 1-2024 [Detail]

This was a First Revision that has been modified or deleted as the result of First Correlating Revision:

Change

"Fire alarm and detection systems..." to "Signaling and detection systems..." in the First and Second columns in Table 1.13.8(a) on the "Fire alarm and detection systems and related equipment" line.

Submitter Information Verification

Committee: FCC-FUN

Submittal Date: Mon Jun 24 13:31:15 EDT 2024

Committee Statement

Committee Statement: A signaling system installed within a protected premises can be for more than just fire detection.

Depending on the occupancy classification and use, the system could be providing CO, CO2, NH3 and other gas detection, as well as mass notification for events such as tornado or active shooter.

Response Message: CI-11-NFPA 1-2024

Public Input No. 152-NFPA 1-2024 [Section No. 1.13.8]

Ballot Results

✔ **This item has passed ballot**

34 Eligible Voters
7 Not Returned
23 Affirmative All
4 Affirmative with Comments
0 Negative with Comments
0 Abstention

Not Returned

Browning, Jr., H. Butch

Butts, Chris L.

Chand, Ramjee Pradeep

Jackson, Michael A.

Laramee, Scott T.

McDonald, Laurent R.

Weniger, Christopher

Affirmative All

Apfelbeck, Anthony C.

Bellamy, Tracey D.

Bush, Kenneth E.

Buuck, Daniel

Clary, Shane M.

Fukuda, Andrew

Gallo, Ernest J.

Garriss, Marvin Dwayne

Hall, Kevin R.

Hart, Sarina L.

McLoughlin, James

Mosberian, Brian

Nicolello, Kelly T.

O?Brian, Michael

O?Brocki, Raymond C.

Olsen, Brian L.

Palazini, Wade

Pennacchio, Elizabeth Kate

Peterkin, James S.

Santoro, Gary S.

Sawyer, Steven F.

Stashak, Catherine L.

Tyree, Jr., Kenneth Earl

Affirmative with Comment

Custer, Michael Scott

Concur with Committee Input

Hoevelmann, Jason M.

Yes

Hopkins, Terin

Correlating with NFPA 72

Solomon, Robert E.

FR-17 (Section 11.9.5) uses the terms: "Fire detection and signaling system" annunciator unit. Not sure if the terminology and order of the systems is important. May want to consider for correlation purposes.

Committee Input No. 9-NFPA 1-2024 [New Section after 1.7.13.3]

1.7.13.3 Use and Occupancy Prior to Final Inspection.

1.7.13.1

New buildings or new portions of a building constructed shall not be occupied or utilized prior to approval by the AHJ.

1.7.13.2

Use of newly installed process equipment, regulated under this code, shall not occur prior to approval by the AHJ.

Submitter Information Verification

Committee: FCC-FUN

Submittal Date: Mon Jun 24 11:34:10 EDT 2024

Committee Statement

Committee Statement: The code does not adequately address temporary use prior to full occupancy. The technical committee has formed a task group to draft proposed language based on this committee input with additional consideration to alterations, reconstruction, change of use, and existing buildings, requirements in the building code for certificate of occupancy, correlation with 4.5.4, and creation of an annex note for clarity on what criteria an AHJ should consider when permitting temporary use prior to occupancy.

See related CI-10 on 4.5.4.

Response Message: CI-9-NFPA 1-2024

Public Input No. 63-NFPA 1-2024 [New Section after 1.7.13.3]

Ballot Results

This item has not been balloted

Committee Input No. 10-NFPA 1-2024 [Section No. 4.5.4]

4.5.4 Conditions for Occupancy.

~~No new~~ New construction or existing building shall not be occupied in whole or in part in violation of the provisions of this *Code* unless all the following ~~conditions exist~~ are met :

(1) A plan of correction has been approved.

(2) The occupancy classification remains the same.

(3) No serious life safety hazard exists as judged by the AHJ.

Submitter Information Verification

Committee: FCC-FUN

Submittal Date: Mon Jun 24 11:48:23 EDT 2024

Committee Statement

Committee Statement: The code does not adequately address temporary use prior to occupancy. The technical committee has formed a task group to draft proposed language based on this committee input with additional consideration to alterations, reconstruction, change of use, and existing buildings, requirements in the building code for certificate of occupancy, correlation with the proposed CI-9, and creation of an annex note for clarity on what criteria an AHJ should consider when permitting temporary use prior to occupancy.

In addition, the existing language is unclear on if one of all of these conditions are required for occupancy. The task group will review the applicability of the existing conditions listed in this section.

See related CI-9 on 1.7.13.3.

Response Message: CI-10-NFPA 1-2024

Ballot Results

This item has not been balloted

Committee Input No. 78-NFPA 1-2024 [Section No. 10.21]

10.21 Powered Micromobility Devices and Batteries .

10.21.1 General.

The charging of powered micromobility devices or batteries for such devices shall be in accordance with Section 10.21 .

10.21.2 Permits.

Where more than five powered micromobility devices

~~will be~~

or batteries for such devices are charged inside or within

~~10 ft~~

10 ft (

~~3 m~~

3 m) of a building or structure,

~~the charging operation~~

a permit shall be required in accordance with

~~Section 10~~

Table 1 .

~~21.~~

13.8(a).

10.21.~~2~~ 3 Charging Equipment.

Powered micromobility devices and batteries for such devices shall be charged in accordance with their listing and the manufacturer's instructions using either the original-equipment-manufacturer-supplied listed charging equipment or listed charging equipment specified in the manufacturer's instructions.

10.21.~~3~~ 4 Listing.

Powered micromobility devices and ~~portable~~ battery packs shall be listed and labeled in accordance with UL 2272, *Electrical Systems for Personal E-Mobility Devices*, or UL 2849, *Electrical Systems for eBikes,* as applicable.

10.21.4 5 Battery Charging.

Battery charging for powered micromobility devices and batteries for such devices shall be in accordance with all of the following:

(1) The charging equipment for each device shall be plugged directly into a listed receptacle.

(2) Extension cords and relocatable power taps shall not be utilized.

(3) Storage of combustible materials, combustible waste, or hazardous materials shall not be permitted within 10 ft (3 m) of the charging equipment.

(4) The charging operation shall not be located in any exit access corridor or exit enclosure

(5) The charging of more than five powered micromobility devices or batteries for such devices in a single tenant space shall only occur in fire sprinkler protected buildings.

10.21.6 Second-use Batteries.

The assembly or reconditioning of a lithium-ion battery using cells removed from used storage batteries shall be prohibited.

10.21.7 Sale or Offer for Sale of Micromobility Devices and Lithium-Ion Batteries.

The sale or offer for sale of lithium-ion batteries or micromobility devices that do not comply with section 10.21 is prohibited.

Submitter Information Verification

Committee: FCC-FUN

Submittal Date: Tue Jun 25 18:11:18 EDT 2024

Committee Statement

Committee Statement: 1. Changes scope of this section from 5 or more devices to all devices. The way the language currently reads it would seem to imply that only when there are five or more devices, does the lising and charging requirements apply. That should clearly not be the case.

2. Requires a permit when move than 5 devices or chargers will be charged. At this threshold, the AHJ should be made aware that a bulk charging operation is occurring so they can inspect for code compliance.

3. Incorporates the provisions from the Code of New York prohibiting the assembly or reconditioning of cells. This would violate the listing and is a hazard so the code should prohibit this activity.

4. Incorporates the provisions from the Code of New York prohibiting the sale of batteries and micromobility devices that do not comply with this section.

5. Requires that when 5 or more devices or batteries are charged in a single tenant, the activity can only occur in a fire sprinkler protected building. This risk of fires from bulk charging operations has clearly been identified via the fire incidents in New York. Fire sprinkler protection for bulk charging operations in a primary method to protect occupants, protect the structure and provide an early notification to the fire department.

Response Message: CI-78-NFPA 1-2024

Public Input No. 64-NFPA 1-2024 [Section No. 10.21]

Ballot Results

This item has not been balloted

Committee Input No. 74-NFPA 1-2024 [Section No. 10.21.4]

10.21.4 Battery Charging.

Battery charging for powered micromobility devices shall be in accordance with all of the following:

(1) The charging equipment for each device shall be plugged directly into a listed receptacle.

(2) Extension cords and relocatable power taps shall not be utilized.

(3) Storage of combustible materials, combustible waste, or hazardous materials shall not be permitted within 10 ft (3 m) of the charging equipment.

(4) The charging operation shall not be located in any exit access corridor or exit enclosure

(5) Batteries shall not be stacked or charged unless Battery Containment Enclosures (BCE) for storage or charging of battery powered equipment is listed and labeled in accordance with UL 1487.

(6) Clearance of 18 inches (460 mm) or more shall be maintained between each removable storage battery during charging operations unless each battery is isolated from neighboring batteries by an approved fire-resistant material.

(7) Clearance of 18 inches (460 mm) or more shall be maintained between the location of the battery on each powered micromobility device during charging operations.

(8) Indoor charging operations shall be protected by air aspirating smoke detectors or radiant energy sensing fire detection connected to a fire alarm system.

Submitter Information Verification

Committee: FCC-FUN

Submittal Date: Tue Jun 25 16:54:36 EDT 2024

Committee Statement

Committee Statement: Fires involving this technology have resulted in major property loss and loss of life, these safety provisions are deemed reasonable requirements to protect life from fire when charging more than 5 micro mobility devices.

Response Message: CI-74-NFPA 1-2024

Ballot Results

This item has not been balloted

Committee Input No. 16-NFPA 1-2024 [New Section after 10.22.5]

10.22.6 ABHR Replacement Solution in Storage.

10.22.6.1 The storage of ABHR solution shall be in accordance with NFPA 30.

10.22.6.2 Permits, when required by the AHJ, shall comply with Section 1.13.

Submitter Information Verification

Committee: FCC-FUN

Submittal Date: Tue Jun 25 08:50:23 EDT 2024

Committee Statement

Committee Statement: MAQ for ABHR storage amounts are established by NFPA 30, It is necessary to establish a link to that reference. Language allowing permitting by the AHJ is provided for local administration of the code.

The technical committee is waiting on the results of the NFPA 101 and NFPA 30 task group related to storage of ABHR. A task group has been established to follow actions taken in NFPA 101 and NFPA 30. It is requested that the correlating committee consider if the content of this CI is under the purview of the FCC-FUN or FCC-HAZ.

Response Message: CI-16-NFPA 1-2024

Public Input No. 205-NFPA 1-2024 [New Section after 10.22.5]

Ballot Results

This item has not been balloted

Committee Input No. 61-NFPA 1-2024 [Sections 11.3.1, 11.3.2, 11.3.3, 11.3.4, 11.3.5]

Sections 11.3.1, 11.3.2, 11.3.3, 11.3.4, 11.3.5

11.3.1 Firefighters' Emergency Operations.

11.3.1.1

All new elevators shall conform to the firefighters' emergency operations requirements of ~~ASME A17.1/CSA B44, *Safety Code for Elevators and Escalators* . [**101** : 9.4.3.1]~~ NFPA 101.

11.3.1.2

All existing elevators having a travel distance of 25 ft (7620 mm) or more above or below the level that best serves the needs of emergency personnel for firefighting or rescue purposes shall conform to the firefighters' emergency operations requirements of ASME A17.3, *Safety Code for Existing Elevators and Escalators*. [**101**:9.4.3.2]

~~**11.3.2** – Number of Cars.~~

~~The number of elevator cars permitted in a hoistway shall be in accordance with 8.6.9.4 of NFPA *101* . [**101** : 9.4.4]~~

~~**11.3.3** * – Elevator Machine Rooms.~~

~~Elevator machine rooms that contain solid-state equipment for elevators, other than existing elevators, having a travel distance exceeding 50 ft (15 m) above the level of exit discharge, or exceeding 30 ft (9.1 m) below the level of exit discharge, shall be provided with a natural or mechanical means to maintain temperature during firefighters' emergency operations for elevator operation *(see 11.3.1)* . The operating temperature shall be established by the elevator equipment manufacturer's specifications. When standby power is connected to the elevator, the means to control the temperature in the machine room shall be connected to standby power, if applicable. [**101** : 9.4.5]~~

~~**11.3.4** – Elevator Testing.~~

~~**11.3.4.1** –~~

~~Elevators shall be subject to periodic inspections and tests as specified in ASME A17.1/CSA B44, *Safety Code for Elevators and Escalators* . [**101** : 9.4.6.1]~~

~~**11.3.4.2** –~~

~~All elevators equipped with firefighters' emergency operations in accordance with 11.3.1 shall be subject to a monthly operation with a written record of the findings made and kept on the premises as required by ASME A17.1/CSA B44, *Safety Code for Elevators and Escalators* . [**101** : 9.4.6.2]~~

~~**11.3.4.3** –~~

~~The elevator inspections and tests required by 11.3.4.1 shall be performed at frequencies complying with one of the following:~~

(1) ~~Inspection and test frequencies specified in Appendix N of ASME A17.1/CSA B44, *Safety Code for Elevators and Escalators*~~

(2) ~~Inspection and test frequencies specified by the AHJ~~

~~[**101** : 9.4.6.3]~~

~~**11.3.5** – Openings to Exit Enclosures.~~

~~Conveyors, elevators, dumbwaiters, and pneumatic conveyors serving various stories of a building shall not open to an exit enclosure. [***101*** **:** 9.4.7]~~

Submitter Information Verification

Committee: FCC-FUN

Submittal Date: Tue Jun 25 15:17:39 EDT 2024

Committee Statement

Committee Statement: The requirements in 11.3 are better suited for a direct reference to 101 as it is more complete within the context of NFPA 101. This is related to the direction from the correlating committee from task group on extract consistency.

Response Message: CI-61-NFPA 1-2024

Ballot Results

This item has not been balloted

Committee Input No. 62-NFPA 1-2024 [Section No. 11.5.1.10]

11.5.1.10 Acceptable Liquid Fuels.

~~**11.5.1.10.1** *~~ –

~~The type and grade of liquid fuel used in a liquid fuel–burning appliance shall be that type and grade for which the appliance is listed and approved or is stipulated by the manufacturer. Liquid fuels shall meet one of the following specifications and shall not contain gasoline or any other flammable liquid:~~

(1) ~~ASTM D396, *Standard Specification for Fuel Oils*~~

(2) ~~ASTM D3699, *Standard Specification for Kerosine*~~

(3) ~~ASTM D6448, *Industrial Burner Fuels from Used Lube Oils*~~

(4) ~~ASTM D6751, *Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels*~~

(5) ~~ASTM D6823, *Standard Specification for Commercial Boiler Fuels with Used Lubricating Oils*~~

(6) ~~ASTM D7666, *Standard Specification for Triglyceride Burner Fuel*~~

[~~**31:** 4.5.1~~]

~~**11.5.1.10.2** –~~

~~Appliances that burn crankcase oil or used oil shall not be used in a residential occupancy. Such appliances shall only be used if all of the following conditions are met:~~

(1) ~~The installation is in a commercial or industrial occupancy.~~

(2) ~~The oil-burning appliance is designed to burn crankcase oil or used oil and is listed for such use.~~

(3) ~~The appliance is installed in accordance with the manufacturer's instructions and with the terms of its listing.~~

(4) ~~The installation meets the applicable requirements of Section 4.6 of NFPA 31 and Chapter 12 of NFPA 31.~~

[~~**31:** 4.5.2~~]

~~**11.5.1.10.3** *~~ –

~~Where heavy oils are used, the following shall be required:~~

(1) ~~The oil-burning appliance shall be designed to burn such fuels.~~

(2) ~~Means shall be provided to maintain the oil at its proper atomizing temperature.~~

(3) ~~Automatically operated burners that require preheating of oil shall be arranged so that no oil can be delivered for combustion until the oil is at the proper atomizing temperature.~~

(4)~~*~~ ~~Use of an oil-fired appliance that is listed in accordance with UL 296A, *Waste Oil-Burning Air-Heating Appliances* , shall be deemed as meeting the intent of 11.5.1.10.3(1) through 11.5.1.10.3(3) .~~

[~~**31:** 4.5.3~~]

~~**11.5.1.10.4** –~~

~~A properly sized and rated oil filter or strainer shall be installed in the oil supply line to an oil burner. [**31:** 4.5.4]~~

Acceptable liquid fuels shall be in accordance with NFPA 31.

Submitter Information Verification

Committee: FCC-FUN

Submittal Date: Tue Jun 25 15:23:23 EDT 2024

Committee Statement

Committee Statement: These sections provide a level of a detail beyond what an inspector would need. This is related to the direction from the correlating committee from task group on extract consistency.

Response Message: CI-62-NFPA 1-2024

Ballot Results

This item has not been balloted

Committee Input No. 155-NFPA 1-2024 [Section No. 11.10]

[See attached Word Document for Changes]

11.10* In-Building Emergency Responder Communication Enhancement Systems.

11.10.1 Permits.

11.10.1.1

Where required by the AHJ, an installation permit shall comply with Section 1.13.

11.10.1.2

Where required by the AHJ, a renewable permit in accordance with 18.7.7 of NFPA 1225 shall be issued at the conclusion of successful acceptance testing.

11.10.2*

In all new and existing buildings, an approved emergency communication enhancement system shall be installed where the minimum radio signal strength into the building cannot be maintained in accordance with NFPA 1225.

11.10.3

In-building emergency responder communication enhancement systems shall comply with the design, installation, testing, inspection, and maintenance requirements in NFPA 1225.

11.10.4 Listed and Labeled.

In-building emergency responder communication enhancement systems installed within buildings shall be listed and labeled in accordance with UL 2524, *In-building 2-Way Emergency Radio Communication Enhancement Systems*.

Supplemental Information

File Name	Description	Approved
CI-155.docx		

Submitter Information Verification

Committee: FCC-FUN

Submittal Date: Fri Jun 28 08:06:38 EDT 2024

Committee Statement

Committee Statement: The committee recognizes the need for evaluation of signal strength and quality within both new and existing buildings. However, this public input does not fully address concerns including the frequency of the signal strength evaluations or if this is applicable to all types of occupancies including ½ family dwellings, the size of the building, the state of the public radio communications system, and the history of signal strength within the building. Additionally, the use of the nomenclature within the public input and this section is not consistent. A task group has been established to review the content of this committee input.

Permit requirements in this section relocated by FR-159.

Response Message: CI-155-NFPA 1-2024

Public Input No. 213-NFPA 1-2024 [Section No. 11.10]

Ballot Results

This item has not been balloted

11.10* In-Building Emergency Responder Communication Coverage.

11.10.1

In-building emergency responder communications coverage shall be provided in all new and existing buildings.

11.10.2*

In all new and existing buildings, an approved emergency communication enhancement system (ERCES) shall be installed to meet the minimum radio signal strength into the building cannot be maintained in accordance with NFPA 1225.

11.10.2.1

Signal strength and quality within new and existing buildings shall be evaluated in accordance with NFPA 1225.

11.10.2.2

Communications coverage shall be evaluated in accordance with NFPA 1225 section 18.8.

11.10.3

In-building emergency responder communication enhancement systems shall comply with the design, installation, testing, inspection, and maintenance requirements in NFPA 1225.

11.10.4 Listed and Labeled.

In-building emergency responder communication enhancement systems installed within buildings shall be listed and labeled in accordance with UL 2524, In-building 2-Way Emergency Radio Communication Enhancement Systems.

Committee Input No. 170-NFPA 1-2024 [Section No. 11.12.2.1.6]

11.12.2.1.6 Markings for Building Integrated PV (BIPV) Systems.

11.12.2.1.6.1

BIPV systems installed as the roof covering shall have markings to identify any areas with electrical hazards hidden from view to avoid ladder placement .

11.12.2.1.6.2

Marking shall be both of the following:

(1) Reflective

(2) Visible from grade beneath the eaves or other approved location

11.12.2.1.6.3

The AHJ shall be permitted to reduce or exempt marking requirements for BIPV systems installed as the roof covering when they are ~~installed~~ listed in accordance with ~~690.12(B)(2) of *NFPA 70* .~~ UL 3741.

Submitter Information Verification

Committee: FCC-FUN

Submittal Date: Mon Jul 01 08:42:23 EDT 2024

Committee Statement

Committee Statement: This is to align with other codes as far as the requirements for the placement of ladders to ensure firefighter safety and to reference the appropriate UL standard.

Response Message: CI-170-NFPA 1-2024

Ballot Results

This item has not been balloted

Committee Input No. 172-NFPA 1-2024 [Sections 11.12.3.2.4, 11.12.3.2.5]

Sections 11.12.3.2.4, 11.12.3.2.5

11.12.3.2.4– * Setbacks at Ridge.

A. 11.12.3.2.4

Where the term plan view area is used in this section, it is intended to apply to the entire roof area and not intended to apply to different roof planes separately .

11.12.3.2.4. 1

For PV arrays occupying up to 33 percent of the plan view total roof area, a minimum 18 in. (457 mm) setback shall be provided on either side of a horizontal ridge.

11.12.3.2.4.2

For PV arrays occupying more than 33 percent of the plan view total roof area, a minimum of 36 in. (914 mm) setback shall be provided on either side of a horizontal ridge.

11.12.3.2.5 Alternative Setbacks at Ridge.

11.12.3.2.5.1

For one- and two-family dwellings with an automatic sprinkler system installed within the dwelling in accordance with 13.3.2.18, for PV arrays occupying up to 66 percent of the plan view total roof area, a minimum 18 in. (457 mm) setback shall be provided on either side of a horizontal ridge.

11.12.3.2.5.2

For PV arrays occupying more than 66 percent of the plan view total roof area on sprinklered one- and two-family dwellings, a minimum 36 in. (914 mm) setback shall be provided on either side of a horizontal ridge.

Submitter Information Verification

Committee: FCC-FUN

Submittal Date: Mon Jul 01 08:48:46 EDT 2024

Committee Statement

Committee Statement: This is to clarify that were the term “plan view roof area,” it is the percent of roof area relates to the plan view total roof area, not the area of one individual roof plane that might have PV. The provisions acknowledge that greater coverage of PV requires the full 36” setback at the ridge, but lesser coverage of PV provides additional options for access pathways to the ridge and ventilation at the ridge, so the setback at the ridge can be reduced to 18 inches.

Response Message: CI-172-NFPA 1-2024

Ballot Results

This item has not been balloted

Committee Input No. 173-NFPA 1-2024 [Section No. 11.12.3.4]

11.12.3.4 ~~Emergency Escape and Rescue Openings~~ Secondary Means of Escape .

11.12.3.4.1

Where rooftop-mounted PV systems or BIPV systems installed as the roof covering are installed on a roof plane directly below ~~an emergency escape and rescue opening~~ a secondary means of escape , a minimum 36 in. (914 mm) wide access pathway shall be provided to at least one ~~emergency escape and rescue opening~~ secondary means of escape for each sleeping room.

11.12.3.4.2

The AHJ shall be permitted to reduce or exempt access pathways at ~~emergency escape and rescue openings~~ a secondary means of escape for BIPV systems installed as the roof covering when they are listed in accordance with ~~690.12(B)(2) of *NFPA 70* .~~ UL 3741.

Submitter Information Verification

Committee: FCC-FUN

Submittal Date: Mon Jul 01 08:50:57 EDT 2024

Committee Statement

Committee Statement: The change to the term secondary means of escape was to align with language utilized for residential occupancies. The reference to NFPA 70 was updated to reference the appropriate UL standard.

Response Message: CI-173-NFPA 1-2024

Ballot Results

This item has not been balloted

Committee Input No. 35-NFPA 1-2024 [Section No. 18.3]

18.3 Water Supplies.

18.3.1*

An approved water supply capable of supplying the required fire flow for fire protection shall be provided to all premises upon which facilities, buildings, or portions of buildings are hereafter constructed or moved into the jurisdiction. The approved water supply shall be in accordance with Section 18.4.

18.3.1.1*

Where no adequate or reliable water distribution system exists, approved reservoirs, pressure tanks, elevated tanks, fire department tanker shuttles, or other approved systems capable of providing the required fire flow shall be permitted.

18.3.2

An approved water supply capable of supplying fire flow for fire protection shall be provided for all new commercial Stationary Energy Storage Systems and Large-Scale Photovoltaic Electrical Supply Stations.

18.3.2.1

The fire flow, duration and locations of water supplies for commercial Stationary Energy Storage Systems and Large Scale-Photvoltaic Electrical Supply Stations shall be determined through an engineering analysis of the hazard and exposures. The fire flow, duration and locations of water supplies shall be approved by the AHJ.

18.3.2.1.1

The minimum fire flow and duration for Large Scale-Photovoltaic Electrical Supply Stations shall at least 500 GPM with a 1 hour duration.

18.3.2.1.2

The minimum fire flow and duration for commercial Stationary Energy Storage Systems shall be 250 GPM with a 1 hour duration.

18.3.2.2

Where no adequate or reliable water distribution system exists that is proximate to an commercial Stationary Energy Storage System or Large Scale-Photovoltaic Electrical Supply Station, approved reservoirs, pressure tanks, elevated tanks, fire department tanker shuttles, or other approved systems capable of providing the require fire flow shall be permitted.

A.18.3.2 This section is intended to apply to both private, public and utility owned facilities. Large-Scale Photovoltaic Electrical Supply Stations includes installations that are at least 5 megawatts (MW) in accordance with the scope as addressed in NFPA 70 Article 691. Commercial Energy Storage System is in intended to include Energy Storage System Walk-In Units as defined by NFPA 855.

A.18.3.2.1 The engineering analysis to determine the required water supply should include a review of the exposures to and from the ESS and photovoltaic equipment. This would include the potential for wildfire exposure to the subject equipment. In addition, the engineering analysis to determine the required water supply should consider the potential impact of the loss of the ESS and photovoltaic equipment to the customers that are serviced.

Chapter 3: Extract the definition of Stationary Energy Storage System from NFPA 855 into Chapter 3 of NFPA 1.

Submitter Information Verification

Committee: FCC-FUN

Submittal Date: Tue Jun 25 13:24:57 EDT 2024

Committee Statement

Committee Statement: This addresses a lack of requirements for fire protection water supplies for ESS and PV system. Additional input is sought from the public on the specific code provisions in this CI to ensure that all the issues are addressed. The FCC-FUN tasks groups will be tasked with reviewing this committee input.

Response Message: CI-35-NFPA 1-2024

Public Input No. 71-NFPA 1-2024 [Section No. 18.3]

Ballot Results

This item has not been balloted

Committee Input No. 171-NFPA 1-2024 [Section No. A.11.12.3.2.3]

A.11.12.3.2.3

It is not the intent of this code to require access pathways on roofs with a pitch of 2 in 12 or less. Figure A.11.12.3.2.3(a) through Figure A.11.12.3.2.3(c) are intended to provide visuals for the requirements of 11.12.3.2.3. In these figures, the PV array is greater than 33 percent of the roof area and therefore also has a 36 in. (914 mm) setback on either side of the horizontal ridge as required by 11.12.3.2.3.2.

Figure A.11.12.3.2.3(a) Pathways on a Cross-Gable Roof with a Valley. ***(Source: Cal Fire.)***

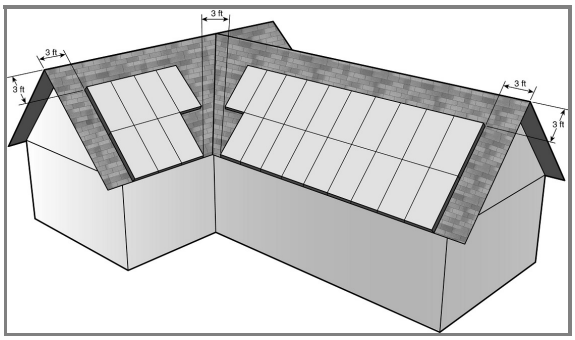


Figure A.11.12.3.2.3(b) Pathways on a Full Gable Roof. ***(Source: Cal Fire.)***

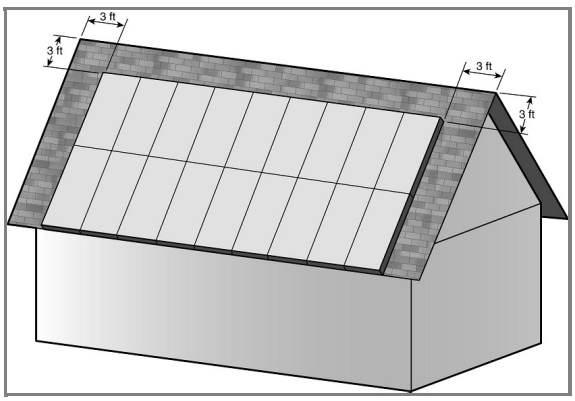
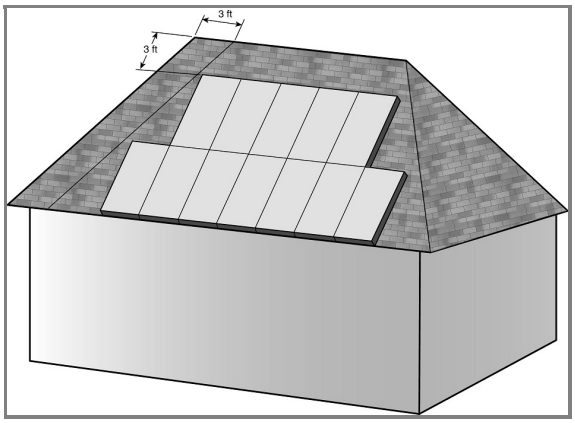


Figure A.11.12.3.2.3(c) Pathways on a Full Hip Roof. ***(Source: Cal Fire.)***



Submitter Information Verification

Committee: FCC-FUN

Submittal Date: Mon Jul 01 08:46:27 EDT 2024

Committee Statement

Committee Statement: This was to clarify the application of the code requirements for flat or low pitch roofs.

Response Message: CI-171-NFPA 1-2024

Ballot Results

This item has not been balloted