First Revision No. 6571-NFPA 101-2021 [Detail]

[UPDATE TITLE]

9.7 Automatic Sprinkler Systems.

Submitter Information Verification

Committee: SAF-BSF
Submittal Date: Fri Jul 16 17:53:05 EDT 2021

Committee Statement

Committee Statement: The subsection title is updated to better describe the contents of the section
Response Message: FR-6571-NFPA 101-2021

Public Input No. 335-NFPA 101-2021 [Section No. 9.7]

First Revision No. 6563-NFPA 101-2021 [New Section after 3.3.14]

3.3.14.1 Initiating Device.

A system component that originates transmission of a change-of-state condition, such as in a smoke detector, manual fire alarm box, or supervisory switch. [**72,** 2022]

Submitter Information Verification

Committee: SAF-BSF

Submittal Date: Fri Jul 16 16:36:21 EDT 2021

Committee Statement

Committee Statement: Definition of Initiating Devices has been extracted from NFPA 72 as “Initiating devices” is added to section 9.7.2.1.1 with FR-6562 as proposed with PI-182.

Response Message: FR-6563-NFPA 101-2021

Public Input No. 183-NFPA 101-2021 [New Section after 3.3.14]

First Revision No. 6564-NFPA 101-2021 [New Section after 3.3.273]

3.3.281 Sprinkler System.

A system, commonly activated by heat from a fire and discharges water over the fire area, that consists of an integrated network of piping designed in accordance with fire protection engineering standards that includes a water supply source, a control valve, a waterflow alarm, and a drain. The portion of the sprinkler system above ground is a network of specifically sized or hydraulically designed piping installed in a building, structure, or area, generally overhead, and to which sprinklers are attached in a systematic pattern. [**13,** 2022]

3.3.281.1 Automatic Sprinkler.

A fire suppression or control device that operates automatically when its heat-activated element is heated to its thermal rating or above, allowing to discharge over a specified area. [**13,** 2022]

Submitter Information Verification

Committee: SAF-BSF

Submittal Date: Fri Jul 16 16:39:14 EDT 2021

Committee Statement

Committee Statement: The term Sprinkler System and Automatic sprinkler is currently used throughout the code therefore the committee extracted the definitions from NFPA 13.

Response Message: FR-6564-NFPA 101-2021

Public Input No. 338-NFPA 101-2021 [New Section after 3.3.273]

First Revision No. 6565-NFPA 101-2021 [Section No. 9.4.5]

9.4.5* 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 ~~independent ventilation or air-conditioning systems~~ a natural or mechanical means to maintain temperature during firefighters' emergency operations for elevator operation *(see 9.4.3)*. The operating temperature shall be established by the elevator equipment manufacturer's specifications. When standby power is connected to the elevator, the ~~machine room ventilation or air-conditioning shall~~ means to control the temperature in the machine room shall be connected to standby power, if applicable .

Submitter Information Verification

Committee: SAF-BSF

Submittal Date: Fri Jul 16 16:56:21 EDT 2021

Committee Statement

Committee Statement: Section updated to align with the requirements of the elevator code ASME A17.1/CSA B44.

Response Message: FR-6565-NFPA 101-2021

Public Input No. 243-NFPA 101-2021 [Section No. 9.4.5]

First Revision No. 6566-NFPA 101-2021 [Section No. 9.6.3.6.1]

9.6.3.6.1

Areas not subject to occupancy by persons who are ~~hearing impaired shall~~ deaf or hard of hearing shall not be required to comply with the provisions for visible signals.

Submitter Information Verification

Committee: SAF-BSF

Submittal Date: Fri Jul 16 17:03:33 EDT 2021

Committee Statement

Committee Statement: Changes made to adopt a "people first" language to avoid characterizing a person or a group of persons entirely by their disability.

Response Message: FR-6566-NFPA 101-2021

Public Input No. 108-NFPA 101-2021 [Section No. 9.6.3.6.1]

First Revision No. 6560-NFPA 101-2021 [Section No. 9.7.1.3]

9.7.1.3

Sprinkler piping serving hazardous areas as described in 9.7.1.2 shall be provided with an indicating shutoff valve, supervised in accordance with 9.7.1.1(1)~~or NFPA 13~~ or 9.7.2 , and installed in an accessible, visible location between the sprinklers and the connection to the domestic water supply.

Submitter Information Verification

Committee: SAF-BSF

Submittal Date: Fri Jul 16 13:56:54 EDT 2021

Committee Statement

Committee Statement: The reference of NFPA 13 is replaced with sections within NFPA 101 for consistency with how other codes reference sprinkler standards.

Response Message: FR-6560-NFPA 101-2021

Public Input No. 390-NFPA 101-2021 [Global Input]

First Revision No. 6562-NFPA 101-2021 [Section No. 9.7.2.1.1]

9.7.2.1.1

Where supervised automatic sprinkler systems are required by another section of this *Code*, supervisory ~~attachments~~ initiating devices shall be installed and monitored for integrity in accordance with *NFPA 72*, and a distinctive supervisory signal shall be provided to indicate a condition that would impair the satisfactory operation of the sprinkler system.

Submitter Information Verification

Committee: SAF-BSF

Submittal Date: Fri Jul 16 16:29:01 EDT 2021

Committee Statement

Committee Statement: "supervisory attachments" is a vague and undefined term therefore it has been replaced with "supervisory initiating devices", as this is the industry accepted term.

Response Message: FR-6562-NFPA 101-2021

Public Input No. 182-NFPA 101-2021 [Section No. 9.7.2.1.1]

First Revision No. 6567-NFPA 101-2021 [Section No. 9.8.1]

9.8.1* Alternative Systems.

In any occupancy where the character of the fuel for fire is such that extinguishment or control of fire is accomplished by a type of automatic extinguishing system in lieu of an automatic sprinkler system, such extinguishing system shall be installed in accordance with the applicable standard referenced in Table 9.8.1.

Table 9.8.1 Fire Suppression System Installation Standards

Fire Suppression System	Installation Standard
Low-, medium-, and high-expansion foam systems	NFPA 11
Carbon dioxide systems	NFPA 12
Halon 1301 systems	NFPA 12A
Water spray fixed systems	NFPA 15
~~Deluge foam-water sprinkler systems~~	~~NFPA 16~~
Dry chemical systems	NFPA 17
Wet chemical systems	NFPA 17A
Water mist systems	NFPA 750
Hybrid (water and inert gas) fire-extinguishing systems	NFPA 770
Clean agent extinguishing systems	NFPA 2001

Supplemental Information

File Name	Description	Approved
101-2021_Table_9.8.1.docx	For Staff Use	

Submitter Information Verification

Committee: SAF-BSF

Submittal Date: Fri Jul 16 17:14:01 EDT 2021

Committee Statement

Committee Statement: Table updated to include NFPA 770 to recognize new technology and removed NFPA 16 as this document is now incorporated into NFPA 11.

Response Message: FR-6567-NFPA 101-2021

Public Input No. 437-NFPA 101-2021 [Section No. 9.8.1]

First Revision No. 6561-NFPA 101-2021 [Section No. 9.10.2]

9.10.2

Where standpipe and hose systems are installed in combination with automatic sprinkler systems, installation shall be in accordance with the appropriate provisions established by ~~NFPA 13~~ 9.7.1.1(1) and NFPA 14.

Submitter Information Verification

Committee: SAF-BSF

Submittal Date: Fri Jul 16 14:54:48 EDT 2021

Committee Statement

Committee Statement: The reference of NFPA 13 is replaced with sections within NFPA 101 for consistency with how other model codes reference sprinkler standards. Changes made as per PI-390 Proposal.

Response Message: FR-6561-NFPA 101-2021

First Revision No. 6568-NFPA 101-2021 [New Section after 9.12]

9.12.1*

Carbon monoxide detectors that are installed in air duct systems shall not be used as a substitute for open area protection. [**72:** 17.12.3]

A.9.12.1

At present there is no product performance listing for duct-mounted carbon monoxide detectors because there is no peer-reviewed research to determine what the alarm thresholds for duct-mounted carbon monoxide detectors should be. There are considerable differences between the operation of a spot-type carbon monoxide detector and a duct-mounted carbon monoxide detector. The environment in ducts can be very harsh and could impact the carbon monoxide detector's sensing element. Furthermore, in most buildings, there are periods when the HVAC system is not moving significant quantities of air from the compartments it serves. As a result, the carbon monoxide detection system cannot be designed to rely on the HVAC system operation for the transport of carbon monoxide to the carbon monoxide detectors. [**72:** A.17.12.3]

Submitter Information Verification

Committee: SAF-BSF

Submittal Date: Fri Jul 16 17:16:40 EDT 2021

Committee Statement

Committee Statement: Section extracted from NFPA 72 to ensure that duct systems are not being used as a substitute for where the code requires spot type CO detector. There is no listing for the alarm thresholds for duct mounted CO detectors. The detectors are listed only for shock and fire hazard and not performance.

Response Message: FR-6568-NFPA 101-2021

Public Input No. 200-NFPA 101-2021 [New Section after 9.12]

First Revision No. 6570-NFPA 101-2021 [Section No. 9.15]

9.15* ~~Two-Way Radio Communication~~ In-Building Emergency Responder Communications Enhancement Systems.

A.9.15

~~Two-way radio communication~~ In-building emergency responder communications enhancement systems provide for greater flexibility and safety for emergency responders during in-building operations relating to fire and non-fire emergencies.

9.15.1

~~Where provided, two-way radio~~ In-building emergency responder communications enhancement systems shall ~~be in accordance with NFPA 1221~~ comply with the design, installation, testing, inspection, and maintenance requirements of NFPA 1225 .

9.15.2

In new buildings, ~~minimum radio~~ the minimum in-building emergency responder communications enhancement system signal strength ~~for fire department communications~~ shall be in accordance with NFPA ~~1221~~ 1225 .

9.15.3*

In existing buildings, ~~radio~~ the minimum in-building emergency responder communications enhancement signal strength ~~for fire department communications~~ shall be as required by the authority having jurisdiction.

A.9.15.3

In existing buildings, it might be difficult to meet the minimum ~~radio~~ signal strength required by NFPA ~~1221~~ 1225 . The authority having jurisdiction might determine that certain areas of a building do not need to meet the ~~radio~~ signal strength coverage required by NFPA ~~1221~~ 1225 . The authority having jurisdiction might also determine that compliance with the minimum ~~radio signal strength~~ in-building emergency responder communications enhancement system outlined in NFPA ~~1221~~ 1225 is appropriate.

Submitter Information Verification

Committee: SAF-BSF

Submittal Date: Fri Jul 16 17:30:38 EDT 2021

Committee Statement

Committee Statement: The section is updated to correct the referenced NFPA installation standard for in-building emergency responder communication enhancement systems. The terminology for in building emergency communication system is changed to be consistent with NFPA installation standard and removes the reference to radio communication systems as there is a shift towards other technology platforms. Installation per NFPA 1225 is applicable when a system is provided or required by another code therefore the term “where required” is unnecessary.

Response Message: FR-6570-NFPA 101-2021

Public Input No. 448-NFPA 101-2021 [Section No. 9.15]

Public Input No. 427-NFPA 101-2021 [Section No. 9.15]

Public Input No. 429-NFPA 101-2021 [Section No. A.9.15]

Public Input No. 450-NFPA 101-2021 [Sections A.9.15, A.9.15.3]

First Revision No. 6569-NFPA 101-2021 [Section No. A.9.6.2.6]

A.9.6.2.6

The manual fire alarm box required by 9.6.2.6 is intended to provide a means to manually activate the fire alarm system when the automatic fire detection system or waterflow devices are out of service due to maintenance or testing, or where human discovery of the fire precedes automatic sprinkler system or automatic detection system activation. Where the fire alarm system is connected to a monitoring facility, the manual fire alarm box required by 9.6.2.6 should be connected to a separate circuit that is not placed “on test” when the detection or sprinkler system is placed “ on test.” The manual ~~fire alarm box should be located in an area that is accessible to occupants of the building and should not be locked~~ means is only intended for use by the system technician or the building owner and should be located by the sprinkler riser or fire alarm control unit .

Submitter Information Verification

Committee: SAF-BSF

Submittal Date: Fri Jul 16 17:23:36 EDT 2021

Committee Statement

Committee Statement: The revision aligns this annex section with NFPA 72 annex A.23.8.5.1.2.

Response Message: FR-6569-NFPA 101-2021

Public Input No. 169-NFPA 101-2021 [Section No. A.9.6.2.6]

Public Input No. 281-NFPA 101-2021 [Section No. A.9.6.2.6]