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CHANGES TO THE 2018 MODEL CODES

Honeywell
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Housekeeping

Posting Questions

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Agenda

- Changes to 2018 ICC Codes
 - IFC
 - IBC
 - IMC
 - IEBC
 - IPMC
 - IRC
- Changes to 2018 NFPA Codes
 - NFPA 101
 - NFPA 1
- Q&A



Introduction

- Comments and opinions during the presentation are exclusively the presenter and do not reflect an official position of the International Code Council (ICC), National Fire Protection Association (NFPA), its employees, or any of the Technical Committees
- This presentation **will not** cover all the revisions, editorial changes, details, requirements or exceptions
- Highly recommend purchasing a copy of the ICC or NFPA Code or the Handbook for all the changes, requirements and details:
 - www.nfpa.org
 - www.iccsafe.org



Introduction

- All changes in presentation will be referenced using legislative text.
 - ~~Red strike through~~ means text is being removed
 - Blue underline means text is being added
 - Black text means no changes

2018 I-Code Changes

Key Changes to the 2018 IFC/IBC

- **907.1.2** Fire alarm shop drawings. Shop drawings for fire alarm systems shall be prepared in accordance with NFPA 72 and submitted for review and approval prior to system installation, ~~and shall include, but not be limited to, all of the following where applicable to the system being installed:~~
 - ~~1. A floor plan that indicates the use of all rooms.~~
 - ~~2. Locations of alarm-initiating devices.~~
 - ~~3. Locations of alarm notification appliances, including candela ratings for visible alarm notification appliances.~~
 - ~~4. Design minimum audibility level for occupant notification.~~
 - ~~5. Location of fire alarm control unit, transponders and notification power supplies.~~
 - ~~6. Annunciators.~~
 - ~~7. Power connection.~~
 - ~~8. Battery calculations.~~
 - ~~9. Conductor type and sizes.~~
 - ~~10. Voltage drop calculations.~~

Key Changes to the 2018 IFC/IBC

Manual Fire Alarm Systems

- **907.2.1 Group A.** A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies where the occupant load due to the assembly occupancy is 300 or more, or where the Group A occupant load is more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3.10 of the International Building Code shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.

Key Changes to the 2018 IFC/IBC

Smoke Detection in Assisted Living, Alcohol and Drug Residential Housing

- ~~907.2.10 Group R-4. Fire alarm systems and smoke alarms shall be installed in Group R-4 occupancies as required in Sections 907.2.10.1 through 907.2.10.3.~~
 - ~~907.2.10.1 Manual fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-4 occupancies.~~
 - ~~907.2.10.2 Automatic smoke detection system. An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be installed in corridors, waiting areas open to corridors and habitable spaces other than sleeping units and kitchens.~~
- **907.2.10.2 Groups R-2, R-3, R-4 and I-1.** Single or multiple-station smoke alarms shall be installed and maintained in Groups R-2, R-3, R-4 and I-1 regardless of *occupant load* at all of the following locations:

Key Changes to the 2018 IFC/IBC

Emergency Voice Alarm Communication (EVAC)

- **907.2.12 High-rise buildings.** High-rise buildings shall be provided with an automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.
- **907.2.12.3 Multiple-channel voice evacuation.** In buildings with an occupied floor more than 120 feet (36 576 mm) above the lowest level of fire department vehicle access, voice evacuation systems for high-rise buildings shall be multiple-channel systems.

Key Changes to the 2018 IFC/IBC

Visible Notification Appliances (Strobes)

- **907.5.2.3.2 Groups I-1 and R-1.** Habitable spaces in dwelling units and sleeping units in Group I-1 and R-1 ~~dwelling units or sleeping units~~ occupancies in accordance with Table 907.5.2.3.2 shall be provided with **a** visible alarm notification ~~appliance,~~ Visible alarms shall be activated by ~~both~~ the in-room smoke alarm and the building fire alarm system.

Key Changes to the 2018 IFC/IBC

Visible Notification Appliances (Strobes), continued

- **907.5.2.3.3 Group R-2.** In Group R-2 occupancies required by Section 907 to have a fire alarm system, ~~all floors~~ each story that ~~contain~~ contains *dwelling units* and *sleeping units* shall be provided with the future capability to support visible alarm notification appliances in accordance with Chapter ~~10~~ 11 of ICC A117.1. Such capability shall be permitted to utilize wired or wireless equipment. The future capability shall be permitted to include any of the following:
 1. The potential for future interconnection of the building fire alarm system with the unit smoke alarms,
 2. Replacement of audible appliances with combination audible/visible appliances
 3. Future extension of the existing wiring from the unit smoke alarm locations to required locations for visible appliances

Key Changes to the 2018 IFC/IBC

Smoke Alarms

- **907.10 Smoke alarm maintenance.** Smoke alarms shall be tested and maintained in accordance with the manufacturer's instructions. Smoke alarms shall be replaced when they fail to respond to operability tests, or when they exceed 10 years from the date of manufacture, unless an earlier replacement is specified in the manufacturer's published instructions.

Key Changes to the 2018 IFC/IBC

Carbon Monoxide Detection

SECTION 202 DEFINITIONS

- **CARBON MONOXIDE ALARM.** A single- or multiple-station alarm intended to detect carbon monoxide gas and alert occupants by a distinct audible signal. It incorporates a sensor, control components and an alarm notification appliance in a single unit.
- **CARBON MONOXIDE DETECTOR.** A device with an integral sensor to detect carbon monoxide gas and transmit an alarm signal to a connected alarm control unit.

Key Changes to the 2018 IFC/IBC

CO Detectors Only Outside of Dwelling/Sleeping Units and Classrooms

- **915.1.1 Where required.** Carbon monoxide detection shall be provided in Group I-1, I-2, I-4 and R occupancies and in classrooms in Group E occupancies
- **915.1.3 Forced-air Fuel burning forced-air furnaces.** Carbon monoxide detection shall be provided in *dwelling units, sleeping units* and classrooms served by a fuel-burning, forced-air furnace.

Exception: Carbon monoxide detection shall not be required in *dwelling units, sleeping units* and classrooms where a carbon monoxide ~~detection~~ detector is provided in the first room or area served by each main duct leaving the furnace, and the carbon monoxide alarm signals are automatically transmitted to an approved location.

Key Changes to the 2018 IFC/IBC

CO Detectors Only Outside of Dwelling/Sleeping Units and Classrooms

- **915.1.4 Fuel-burning appliances outside of dwelling units, sleeping units and classrooms.** Carbon monoxide detection shall be provided in *dwelling units, sleeping units* and classrooms located in buildings that contain fuel-burning appliances or fuel-burning fireplaces.

Exceptions:

1. Carbon monoxide detection shall not be required in *dwelling units, sleeping units* and classrooms where there are no communicating openings between the fuel-burning appliance or fuel-burning fireplace and the *dwelling unit, sleeping unit* or classroom.
2. Carbon monoxide detection shall not be required in *dwelling units, sleeping units* and classrooms where [a](#) carbon monoxide ~~detection~~-[detector](#) is provided in one of the following locations:
 - 2.2 On the ceiling of the room containing the fuel-burning appliance or fuel-burning fireplace.

Key Changes to the 2018 IFC/IBC

CO Detectors Only Outside of Dwelling/Sleeping Units and Classrooms

- **915.1.5 Private garages.** Carbon monoxide detection shall be provided in *dwelling units, sleeping units* and classrooms in buildings with attached private garages.

Exceptions:

1. Carbon monoxide detection shall not be required where there are no communicating openings between the private garage and the *dwelling unit, sleeping unit* or classroom.
2. Carbon monoxide detection shall not be required in *dwelling units, sleeping units* and classrooms located more than one story above or below a private garage.
3. Carbon monoxide detection shall not be required where the private garage connects to the building through an open-ended corridor.
4. Where a carbon monoxide ~~detection~~-detector is provided in an approved location between openings to a private garage and *dwelling units, sleeping units* or classrooms, ~~carbon monoxide detection shall not be required in the dwelling units, sleeping units or classrooms~~

Key Changes to the 2018 IFC/IBC

CO Detection in K-12 Schools

- **915.2.3 Group E occupancies.** Carbon monoxide ~~detection~~ detectors shall be installed in classrooms in Group E occupancies. Carbon monoxide alarm signals shall be automatically transmitted to an on-site location that is staffed by school personnel.
- **915.4.3 Locations.** Carbon monoxide alarms shall only be installed in dwelling units and in sleeping units. They shall not be installed in locations where the Code requires carbon monoxide detectors to be used.

Key Changes to the 2018 IFC

Carbon Monoxide Detection in Existing Buildings

- **1103.9 Carbon monoxide alarms.** ~~Existing Group I-1, I-2, I-4 and R occupancies~~ Carbon monoxide alarms shall be ~~equipped with carbon monoxide alarms installed~~ in ~~accordance with Section 915, except that~~ existing dwelling units and sleeping units when they include any of the conditions identified in Sections 915.1.2 through 915.1.6. The carbon monoxide alarms shall be ~~allowed to~~ installed in the locations specified in Section 915.2.1 and the installation shall be ~~solely battery operated.~~ in accordance with Section 915.4

Exceptions:

1. Carbon monoxide alarms are permitted to be solely battery operated where the code that was in effect at the time of construction did not require carbon monoxide detectors to be provided
2. Carbon monoxide alarms are permitted to be solely battery operated in dwelling units that are not served from a commercial power source.
3. A carbon monoxide detection system in accordance with Section 915.5 shall be an acceptable alternative to carbon monoxide alarms

Key Changes to the 2018 IEBC

Carbon Monoxide Detection in Existing Buildings, continued

- 402.6 Carbon monoxide alarms in existing portions of a building. Where an addition is made to a building or structure of a Group I-1, I-2, I-4 or R occupancy, the existing building shall be provided with carbon monoxide alarms in accordance with Section 1103.9 of the *International Fire Code* or Section R315 of the *International Residential Code*, as applicable.

Exceptions:

1. Work involving the exterior surfaces of buildings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of porches or decks, is exempt from the requirements of this section.
2. Installation, alteration or repairs of plumbing or mechanical systems, other than fuel-burning appliances, are exempt from the requirements of this section.

Key Changes to the 2018 IEBC

Carbon Monoxide Detection in Existing Buildings, continued

- 403.11 Carbon monoxide alarms. Carbon monoxide alarms shall be provided to protect sleeping units and dwelling units in Group I-1, I-2, I-4 and R occupancies in accordance with Section 1103.9 of the *International Fire Code*.

Exceptions:

1. Work involving the exterior surfaces of buildings, such as the replacement of roofing or siding, or the addition or replacement of windows or doors, or the addition of porches or decks, is exempt from the requirements of this section.
2. Installation, alteration or repairs of plumbing or mechanical systems, other than fuel-burning appliances, are exempt from the requirements of this section.

Key Changes to the 2018 IPMC

Carbon Monoxide Detection in Existing Buildings, continued

- **704.3 Carbon monoxide alarms and detectors.** Carbon monoxide alarms and carbon monoxide detection systems shall be maintained in accordance with NFPA 720. Carbon monoxide alarms and carbon monoxide detectors that become inoperable or begin producing end-of-life signals shall be replaced.

Key Changes to the 2018 IRC

Carbon Monoxide Alarms

- **R315.5 Interconnectivity** Where more than one carbon monoxide alarm is required to be installed within an individual dwelling unit in accordance with Section R315.3, the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all of the alarms in the individual dwelling unit. Physical interconnection of carbon monoxide alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm.

Exception: Interconnection of carbon monoxide alarms in existing areas shall not be required where alterations or repairs do not result in removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available that could provide access for interconnection without the removal of interior finishes.



Key Changes to the 2018 IFC/IBC

Risk Analysis for Mass Notification Systems

SECTION 917 MASS NOTIFICATION SYSTEMS

- 917.1 College and university campuses. Prior to construction of a new building requiring a fire alarm system on a multiple-building college or university campus having a cumulative building occupant load of 1,000 or more, a mass notification risk analysis shall be conducted in accordance with NFPA 72. Where the risk analysis determines a need for mass notification, an approved mass notification system shall be provided in accordance with the findings of the risk analysis.

Key Changes to the 2018 IFC/IBC

Integrated Testing of Fire Protection Systems

SECTION 202 DEFINITIONS

INTEGRATED TESTING (FIRE PROTECTION AND LIFE SAFETY SYSTEM).

A testing procedure to establish the operational status, interaction and coordination of two or more fire protection and safety systems.

Key Changes to the 2018 IFC/IBC

Integrated Testing of Fire Protection Systems, continued

- **901.6.2.1 High-rise buildings.** For high-rise buildings, integrated testing shall comply with NFPA 4, with an integrated test performed prior to issuance of the certificate of occupancy and at intervals not exceeding 10 years, unless otherwise specified by an integrated system test plan prepared in accordance with NFPA 4. If an equipment failure is detected during integrated testing, a repeat of the integrated test shall not be required, except as necessary to verify operation of fire protection or life safety functions that are initiated by equipment that was repaired or replaced.

Key Changes to the 2018 IFC/IBC

Integrated Testing of Fire Protection Systems, continued

- **901.6.2.2 Smoke control systems.** Where a fire alarm system is integrated with a smoke control system as outlined in Section 909, integrated testing shall comply with NFPA 4, with an integrated test performed prior to issuance of the certificate of occupancy and at intervals not exceeding 10 years, unless otherwise specified by an integrated system test plan prepared in accordance with NFPA 4. If an equipment failure is detected during integrated testing, a repeat of the integrated test shall not be required, except as necessary to verify operation of fire protection or life safety functions that are initiated by equipment that was repaired or replaced.

Key Changes to the 2018 IFC/IBC

Integrated Testing of Fire Protection Systems, continued

- **901.6.2 Integrated testing.** Where two or more fire protection or life safety systems are interconnected, the intended response of subordinate fire protection and life safety systems shall be verified when required testing of the initiating system is conducted. In addition, integrated testing shall be performed in accordance with Sections 901.6.2.1 and 901.6.2.2.

2018 NFPA 101 and NFPA 1

Key Changes to the 2018 NFPA Codes

CO Detection in K-12 Schools

- **14.3.4.4.1** Carbon monoxide ~~alarms or carbon monoxide~~ detectors in accordance with Section 9.8 shall be provided in new educational occupancies in the locations specified as follows:
 - 1) Carbon monoxide detectors shall be installed on the ceilings of rooms containing permanently installed fuel-burning appliances .
 - 2) Carbon monoxide detectors shall be installed centrally within occupiable spaces served by the first supply air register from a permanently installed, fuel-burning HVAC system
 - 3) Carbon monoxide detectors shall be installed centrally within occupiable spaces adjacent to a communicating attached garage .
- **14.3.4.4.2** Where carbon monoxide detectors are installed in accordance with 14.3.4.4.1(1) , the alarm signal shall be automatically transmitted to an approved on-site location or to an off-premises location in accordance with NFPA 720.

Key Changes to the 2018 NFPA Codes

CO Detection Outside of Hotel and Dormitory Sleeping Rooms

- **28.3.4.7.4** Where fuel-burning appliances or fuel-burning fireplaces are installed outside guest rooms or guest suites, carbon monoxide ~~alarms or carbon monoxide~~ detectors shall be installed in accordance with the manufacturer's published instructions in the locations specified as follows:
 1. On the ceilings of rooms containing permanently installed fuel-burning appliances or fuel-burning fireplaces
 2. Centrally located within occupiable spaces served by the first supply air register from a permanently installed, fuel-burning HVAC system
 3. Centrally located within occupiable spaces adjacent to a communicating attached garage
- **28.3.4.7.5** Where carbon monoxide detectors are installed in accordance with 28.3.4.7.4(1) , the alarm signal shall be automatically transmitted to an approved on-site location or to an off-premises location in accordance with NFPA 720

Key Changes to the 2018 NFPA Codes

CO Detection Outside of Apartment Dwelling Units

- **30.3.4.6.4** Where fuel-burning appliances or fuel-burning fireplaces are installed outside guest rooms or guest suites, carbon monoxide ~~alarms or carbon monoxide~~ detectors shall be installed in accordance with the manufacturer's published instructions in the locations specified as follows:
 1. On the ceilings of rooms containing permanently installed fuel-burning appliances or fuel-burning fireplaces
 2. Centrally located within occupiable spaces served by the first supply air register from a permanently installed, fuel-burning HVAC system
 3. Centrally located within occupiable spaces adjacent to a communicating attached garage
- **30.3.4.6.5** Where carbon monoxide detectors are installed in accordance with 30.3.4.6.4(1) , the alarm signal shall be automatically transmitted to an approved on-site location or to an off-premises location in accordance with NFPA 720.

Key Changes to the 2018 NFPA Codes

CO Detection in Small Board and Care Facilities

- 32.2.3.4.4.1 Carbon monoxide alarms or carbon monoxide detectors in accordance with Section 9.12 and 32.2.3.4.4 shall be provided in new, small board and care facilities where either of the following conditions exists:
 - 1) Where small board and care facilities have communicating attached garages, unless otherwise exempted by 32.2.3.4.4.3
 - 2) Where small board and care facilities contain fuel-burning appliances or fuel-burning fireplaces
- 32.2.3.4.4.2 Where required by 32.2.3.4.4.1, carbon monoxide alarms or carbon monoxide detectors shall be installed in the following locations:
 - 1) Outside each separate sleeping area in the immediate vicinity of the sleeping rooms
 - 2) Within sleeping rooms containing fuel-burning appliances or fuel-burning fireplaces
 - 3) On every occupiable level, including basements and excluding attics and crawl spaces
 - 4) Centrally located within occupiable spaces adjacent to a communicating attached garage, unless otherwise exempted by 32.2.3.4.4.3

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Key Changes to the 2018 NFPA Codes

CO Detection in Large Board and Care Facilities

- 32.3.3.4.9.1 Carbon monoxide alarms or carbon monoxide detectors in accordance with Section 9.12 and 32.3.3.4.9 shall be provided in new large board and care facilities where either of the following conditions exists:
 - 1) Where large board and care facilities have communicating attached garages, unless otherwise exempted by 32.3.3.4.9.3
 - 2) Where sleeping rooms or sleeping room suites contain fuel-burning appliances or fuel-burning fireplaces
- 32.3.3.4.9.2 Where required by 32.3.3.4.9.1, carbon monoxide alarms or carbon monoxide detectors shall be installed in the following locations:
 - 1) Outside each separate sleeping room area in the immediate vicinity of the sleeping rooms
 - 2) Within sleeping rooms containing fuel-burning appliances or fuel-burning fireplaces
 - 3) On every occupiable level of a sleeping room and sleeping room suite
 - 4) Centrally located within occupiable spaces adjacent to a communicating attached garage, unless otherwise exempted by 32.3.3.4.9.3

Key Changes to the 2018 NFPA Codes

CO Detection in Large Board and Care Facilities, continued

- 32.3.3.4.9.4 Where fuel-burning appliances or fuel-burning fireplaces are installed outside sleeping rooms, carbon monoxide alarms or carbon monoxide detectors shall be installed in the locations specified as follows:
 - 1) Within rooms containing fuel-burning appliances or fuel-burning fireplaces
 - 2) Centrally located within occupiable spaces served by the first supply air register from a fuel-burning HVAC system

Key Changes to the 2018 NFPA Codes

CO Detection in Assembly Occupancies

- 14.3.4.4.1 Carbon monoxide detectors in accordance with Section 9.12 shall be provided in new educational occupancies in the locations specified as follows:
 - 1) Carbon monoxide detectors shall be installed on the ceilings of rooms containing permanently installed fuel-burning appliances.
 - 2) Carbon monoxide detectors shall be installed centrally located within occupiable spaces served by the first supply air register from a permanently installed, fuel-burning HVAC system.
 - 3) Carbon monoxide detectors shall be installed centrally located within occupiable spaces adjacent to a communicating attached garage.
- 14.3.4.4.2 Where carbon monoxide detectors are installed in accordance with 14.3.4.4.1(1), the alarm signal shall be automatically transmitted to an approved on-site location or to an off-premises location in accordance with NFPA 720.



Key Changes to the 2018 NFPA Codes

Risk Analysis for Mass Notification Systems

- 9.14.1.1 Where required by Chapters 11 through 43, a risk analysis for mass notification systems shall be provided in accordance with the requirements of Chapter 24 of NFPA 72 and the provisions of 9.14.2 through 9.14.4.
- 9.14.1.2 Where a mass notification system is required by the risk analysis in 9.14.1.1, the system shall be in accordance with the requirements of Chapter 24 of NFPA 72.
- 9.14.3.1 The emergency action plan, risk assessment report, and accompanying documentation shall be submitted to the authority having jurisdiction by the registered design professional (RDP). The format and content of the documentation shall be acceptable to the authority having jurisdiction.

Key Changes to the 2018 NFPA Codes

Risk Analysis for Mass Notification Systems, continued

High-Rise Buildings

- 11.8.4.3 Risk Analysis for Mass Notification Systems. For high-rise buildings with a total occupant load of 5000 or more persons, or where the floor of an occupiable story is greater than 420 ft (128 m) above the lowest level of fire department vehicle access, a risk analysis in accordance with Section 9.14 shall be performed to determine whether a mass notification system is required.

Key Changes to the 2018 NFPA Codes

Risk Analysis for Mass Notification Systems, continued

New Assembly Occupancies

- 12.3.4.5 Risk Analysis for Mass Notification Systems. A risk analysis in accordance with Section 9.14 shall be performed for new assembly occupancies with an occupant load of 500 or more to determine whether a mass notification system is required.

New Educational Occupancies

- 14.3.4.5 Risk Analysis for Mass Notification Systems. A risk analysis in accordance with Section 9.14 shall be performed to determine if a mass notification system is required.

Key Changes to the 2018 NFPA Codes

Rick Analysis for Mass Notification Systems, continued

Dormitories

- 28.3.4.4.1 A risk analysis in accordance with Section 9.14 shall be performed for grades K through 12, college, or university dormitories with an occupant load greater than 100 to determine whether a mass notification is required.
- 28.3.4.4.2 Applicable portions of an existing risk analysis shall be permitted to be used when a new building is added to the campus.

Key Changes to the 2018 NFPA Codes

Risk Analysis for Mass Notification Systems, continued

New Mercantile Occupancies

- 36.4.4.7.5 Risk Analysis for Mass Notification. A risk analysis in accordance with Section 9.14 shall be performed for new mall structures to determine whether a mass notification system is required.

College and University Occupancies with Classrooms

- 38.3.4.5* Risk Analysis for Mass Notification. A risk analysis in accordance with Section 9.14 shall be performed for business occupancies containing a classroom where the building is owned, rented, leased, or operated by a college or university to determine whether a mass notification system is required.

Key Changes to the 2018 NFPA Codes

Integrated Testing of Fire Protection Systems

- 9.11.4* Integrated Fire Protection and Life Safety System Tests.
- 9.11.4.1 Basic Testing. Where required by Chapters 11 through 43, installations involving two or more fire protection or life safety systems shall be tested to verify the proper operation and function of such systems in accordance with 9.11.4.1.1 and 9.11.4.1.2.
- 9.11.4.1.1 When a fire protection or life safety system is tested, the response of integrated fire protection and life safety systems shall be verified.
- 9.11.4.1.2 After repair or replacement of equipment, required retesting of integrated systems shall be limited to verifying the response of fire protection or life safety functions initiated by repaired or replaced equipment.

Key Changes to the 2018 NFPA Codes

Integrated Testing of Fire Protection Systems, continued

- **9.11.4.2* NFPA 4 Testing.** Where required by 9.3.5 or Chapters 11 through 43, the following integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1 and 9.11.4.2.1 through 9.11.4.2.2:
 1. Integrated fire protection and life safety systems in high-rise buildings
 2. Integrated fire protection and life safety systems that include a smoke control system
- **9.11.4.2.1** For new buildings, integrated testing in accordance with NFPA 4 shall be conducted prior to the issuance of a certificate of occupancy.
- **9.11.4.2.2** For existing buildings, integrated testing in accordance with NFPA 4 shall be conducted at intervals not exceeding 10 years unless otherwise specified by an integrated system test plan prepared in accordance with NFPA 4.

Key Changes to the 2018 NFPA Codes

Integrated Testing of Fire Protection Systems, continued

Buildings with Smoke Control Systems

- **9.3.5 Integrated System Testing.** Smoke control systems that are integrated with other fire protection or life safety systems shall be tested in accordance with 9.11.4.2.

High-Rise Buildings

- **11.8.9 Integrated Fire Protection and Life Safety System Testing.** For high-rise buildings, integrated fire protection and life safety system testing shall be in accordance with 9.11.4.2.

Key Changes to the 2018 NFPA Codes

Integrated Testing of Fire Protection Systems, continued

New and Existing Assembly Occupancies

- **12.7.14 Integrated Fire Protection and Life Safety Systems.** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **13.7.14.1** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **13.7.14.2** Integrated fire protection and life safety systems in high-rise buildings shall be tested in accordance with 9.11.4.2.

Key Changes to the 2018 NFPA Codes

Integrated Testing of Fire Protection Systems, continued

New and Existing Education Occupancies

- **14.7.6 Integrated Fire Protection and Life Safety Systems.** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **15.7.6.1** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **15.7.6.2** Integrated fire protection and life safety systems in high-rise buildings shall be tested in accordance with 9.11.4.2.

Key Changes to the 2018 NFPA Codes

Integrated Testing of Fire Protection Systems, continued

New and Existing Day-Care Occupancies

- **16.7.6 Integrated Fire Protection and Life Safety Systems.** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **17.7.6.1** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **17.7.6.2** Integrated fire protection and life safety systems in high-rise buildings shall be tested in accordance with 9.11.4.2.

Key Changes to the 2018 NFPA Codes

Integrated Testing of Fire Protection Systems, continued

New and Existing Health Care Occupancies

- **18.7.10 Integrated Fire Protection and Life Safety Systems.** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **19.7.10.1** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **19.7.10.2** Integrated fire protection and life safety systems in high-rise buildings shall be tested in accordance with 9.11.4.2.

Key Changes to the 2018 NFPA Codes

Integrated Testing of Fire Protection Systems, continued

New and Existing Ambulatory Health Care Occupancies

- **20.7.10 Integrated Fire Protection and Life Safety Systems.** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **21.7.10.1** Integrated fire protection and life safety systems in existing high-rise buildings shall be tested in accordance with 9.11.4.1.
- **21.7.10.2** Integrated fire protection and life safety systems in high-rise buildings shall be tested in accordance with 9.11.4.2.

Key Changes to the 2018 NFPA Codes

Integrated Testing of Fire Protection Systems, continued

New and Existing Detention and Correctional Occupancies

- **22.7.8 Integrated Fire Protection and Life Safety Systems.** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **23.7.8.1** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **23.7.8.2** Integrated fire protection and life safety systems in high-rise buildings shall be tested in accordance with 9.11.4.2.

Key Changes to the 2018 NFPA Codes

Integrated Testing of Fire Protection Systems, continued

New and Existing Lodging, Hotels and Dormitories

- **26.7.2 Integrated Fire Protection and Life Safety Systems.** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **28.7.8 Integrated Fire Protection and Life Safety Systems.** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **29.7.8.1** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **29.7.8.2** Integrated fire protection and life safety systems in high-rise buildings shall be tested in accordance with 9.11.4.2.

Key Changes to the 2018 NFPA Codes

Integrated Testing of Fire Protection Systems, continued

New and Existing Apartment Buildings

- **30.7.4 Integrated Fire Protection and Life Safety Systems.** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **31.7.4.1** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **31.7.4.2** Integrated fire protection and life safety systems in high-rise buildings shall be tested in accordance with 9.11.4.2.

Key Changes to the 2018 NFPA Codes

Integrated Testing of Fire Protection Systems, continued

New and Existing Mercantile and Business Occupancies

- **36.7.8 Integrated Fire Protection and Life Safety Systems.** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **37.7.8.1** Integrated fire protection and life safety systems shall be tested in accordance with 9.11.4.1.
- **37.7.8.2** Integrated fire protection and life safety systems in high-rise buildings shall be tested in accordance with 9.11.4.2.

Changes to the 2018 Model Codes

Time for more
questions!

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