



IN THIS ISSUE

- 1 PRESIDENT'S MESSAGE**
- 2 SIGNIFICANT CHANGES TO THE 2022 EDITION OF NFPA 72 – PART 2**
- 3 LITTLE KNOWN FACTS**
- 4 SEMINAR INFORMATION**
- 4 EMPLOYEE SPOTLIGHT**

OUR GOAL IS TO COMPLETE ALL PLAN REVIEWS WITHIN 10 BUSINESS DAYS

SPRING 2021 QUARTERLY REVIEW

 BUILDING PLAN REVIEW

 FIRE SAFETY PLAN REVIEW

 CONSULTING SERVICES

PRESIDENT'S MESSAGE

An FSCI update from Keith Frangiamore, FSCI President

Spring Has Sprung

Springtime is here and we are all excited to have warmer weather, budding plants and finally putting COVID-19 behind us. There is new business blooming as well, albeit in different areas of our company. Although plan reviews plateaued earlier this year, especially with the intense winter weather across the country, our consulting division has been overwhelmed. We have been able to quickly pivot to perform this work, leveraging expertise and experience of our senior staff to satisfy our consulting clients' needs. As we escape these winter months, we expect that construction will rebound and plan review projects will return to more normal levels.

We have taken advantage of the winter season by increasing our staff training frequency and intensity, for all staff but particularly for our newer plan review team members. We want to ensure every team member is prepared to provide the best service possible to our clients.

We also had a little more time to realign several administrative tasks and "special" project processes as part of our continuous improvement process.

"Post" Pandemic Outlook

The federal government has promised to make the SAR COVID19 vaccine available to all Americans by the end of May 2021. This should allow the economy to improve and business to return to some semblance of normalcy. FSCI stands ready to engage all regular client activities including third party plan reviews and inspections, consulting projects, educational seminars and other activities such as conferences and vendor shows. We are also on the precipice of a revolution in the third-party plan review services industry.

Please follow FSCI news closely as we work to implement Electronic Plan Review service!

Please stay safe, protect each other, and help us all move toward a healthful future!



SIGNIFICANT CHANGES TO THE 2022 EDITION OF NFPA 72 – PART 2

*Warren E. Olsen, Vice President of Building and Life Safety
Principal Member, Chapter 26, Supervising Station Alarm Systems
Alternative Voting Member, Chapter 18, Notification Appliances*

Following the completion of technical and correlating committee meetings in 2019 and 2020, the 2022 edition of NFPA 72 (code), The National Fire Alarm and Signaling Code, is nearly a finished product. Committee members have reviewed and acted on more than 700 public inputs and comments submitted by interested parties looking to change the requirements found in the 2019 edition of the code.

Actions by the ten committees responsible for reviewing inputs and comments have led to more than 200 changes to the code. While this may seem like a large number of changes, it is far fewer than the number of changes that were incorporated into the 2019 edition of the code. The 2019 edition incorporated most of the requirements for carbon monoxide detection which previously were found in NFPA 720 which has now been retired by the NFPA.

This is the second installment of a two-part article that looks at many of the changes that, pending member voting at the June 2021 NFPA Virtual Annual Meeting and any resulting necessary committee action, will become a part of the next edition of the code. Part 1 of this article can be found in the Fire Safety Consultants, Winter 2021, newsletter which can be accessed through our website www.firesafetyfsci.com. Part 1 covered Global changes made throughout the code and Chapters 1 through 14. Part 2 of this article will cover the changes made in Chapters 17 through 29.

Please note that the section numbers included in this article are based on information available as of the writing of this article and may change slightly when the final version of NFPA 72 is published.

Chapter 17 – Initiating Devices

Significant changes found in Chapter 17 affected alarm and supervisory initiating devices.

First Revision (FR) 5211, thru new section 17.4.4, returned to the code the requirement that initiating devices must be supported independently of the conductors that are connected to the device. This requirement, which was removed from the code for a single cycle has been included in this edition. The requirement states that the wires to the device are not permitted to attach it to a wall or ceiling. The manufacturer's published installation instructions should be

used to determine correct device mounting.

A First Committee Revision (FCR) 16, by way of section 17.4.7, has removed the 10-foot condition for detectors installed in concealed locations prior to needing remote alarm indicators. Now, any detector that has an alarm or supervisory indicator which is not visible to responding personnel, either by its concealed location or by its mounting arrangement, must have a remote indicator. The exception to this requirement remains in section 17.7.4.7.3. This section allows the omission of the remote indicator when the device location is identified at the FACU and a drawing is provided which shows the device's location and its functions.

FCR 21, thru revised section 17.6.2.2.1.1, clarified that electronic heat detectors, which are field programmable, are not required to be labeled with a color marking (see Table 17.6.2.1) as is required for non-field-programmable detectors.

Second Revision (SR) 5042, provides a more generic version of the long-standing requirement for duct smoke detectors and where they are to be located. Section 17.7.5.3.1 now indicates that duct detectors shall be provided as required by NFPA 90A and section 17.7.6.4.2 (Smoke Detection for Air Duct System). Detector placement within the duct system, when duct detection is required, is described in section 17.7.6.4.2. However, if your jurisdiction uses the International Mechanical Code, refer to the applicable sections related to duct detection systems.

A revision affecting Carbon Monoxide detector placement can be found in A.17.12.1. SR 5044 provided additional text that requires: 1) CO detection on the ceiling of a room where fuel-burning appliances are located, 2) Centrally on every habitable level in each HVAC zone, 3) Outside and within 21-feet of dwelling units and sleeping areas, and 4) Where required by other codes. Additionally, CO detectors that are installed within air-duct systems are not permitted to be used as a substitute for open-area detection. SR 5064, and 17.12.3 and its Annex, further explains that there is currently no product testing standard for duct-mounted CO detectors. Additionally, air ducts are not a good location for these devices because an

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LITTLE KNOWN FACTS

Increasing Your Design Area Due To Unsprinklered Combustible Concealed Spaces – NFPA 13

Combustible concealed spaces can cause many challenges when designing a sprinkler system. Sections 8.15.1.2 and 8.15.6 of the 2016 edition of NFPA 13 allows many ways to omit sprinkler protection in these areas that can help keep the cost of the required sprinkler system down. The downside to using these exceptions is that you may have to increase the size of your design area. This increase is to compensate for the anticipated delay in sprinkler activation when a fire occurs in an unprotected area.

Section 11.2.3.1.4(4) lists requirements that would allow you to keep your design area to the size shown in Figure 11.23.1.1. When these requirements are not met, the design area must be increased to a minimum of 3,000 sq. ft. When residential sprinklers are used, the design area must be increased to include 8 sprinklers. This is only required when the design area is adjacent to the combustibile concealed space. “Adjacent” does apply to the floor space above and below the concealed space, not just horizontally. When a barrier with a fire resistance rating (in minutes) equivalent to, or greater than, the required water supply duration (i.e., 30, 60, 90 minutes) fully separates the concealed space from the sprinklered area, the design area increase is not required.

A common misconception is that increasing your design area size to 3,000 square feet is, in itself, an exception used to omit sprinkler protection in a combustibile concealed space. This is not true. An exception found in Sections 8.15.1.2 and 8.15.6 of NFPA 13 must be used to omit sprinkler protection from the combustibile space.

- Michael Carnduff, Fire Protection Consultant

Smoke detector locations – NFPA 72

Doors opening from the outside into a small vestibule can lead to nuisance alarm signals when smoke detectors are located in the area. Smoke detector placement should take into consideration low or high temperatures, humidity levels and high air flows in a space. We all know the common areas like, kitchens, showers and furnace rooms are hot spots for false activation of certain types of smoke detection. However, the often-overlooked building vestibule tends to be an area that frequently receives exposure to the outdoor environments such as humidity changes, dirt and dust blowing in from the outside, and possibly vehicle exhaust leaking inside throughout the day. If detection must be installed, adjusting the smoke detector sensitivity, where possible from the FACU, can be a good option instead of replacing it with a heat detector. NFPA 72, 2019 edition,

allows for the adjustment for spot-type smoke detectors stating, “field adjustment of sensitivity via a mechanical means shall have an adjustment range of not less than 0.6 percent per foot obscuration”. Prior to any changes in sensitivity, the installation manual shall be reviewed and the detector shall be marked with its nominal production sensitivity and tolerance in percent per foot obscuration.

- Ryan Case, Fire Protection Consultant

Fire Alarm Control Equipment Installation Requirements - NFPA 72

In past editions of NFPA 72 there were no clear description as to what fire alarm control equipment was permitted to be installed in either accessible or readily accessible areas. The 2019 edition of NFPA 72, 10.4.4 provides a much clearer description.

Fire alarm control equipment intended to be used by the business owner or the emergency response personnel shall be installed with a visual display at a minimum of 15 inches and maximum 6 feet above the finished floor. These installation heights allow the fire alarm control equipment to be readily accessible to the emergency responders and business owners to identify the specific alarm, supervisory or trouble condition. Per, NFPA 72, A.10.4.4, although remote power supplies have signal lighting in them, the trouble signals they identify are for the technician not the owner or emergency response persons. Therefore, they would not be required to be installed as described in NFPA 72 sec 10.4.4. But, as with all fire alarm control unit equipment, a clear working space of at least 3-feet must be provided in front of the equipment in accordance with the National Electrical Code.

As for the communicator, installation shall be per the equipment data sheet. In most cases it requires installation in the same room as the fire alarm control panel or within a certain number of feet of the panel. Above a drop ceiling does not constitute within the same room even if it is within the same four walls. As a final reminder, smoke or heat detector, early detection, is still required above all fire alarm control equipment, remote power supplies and supervising station transmitting equipment regardless of where it is installed in accordance with 10.4.5. This early detection will activate an alarm condition before the equipment is compromised by heat and/or fire. Yes, there are exceptions, early detection is not required where the control equipment is installed in a constantly attended location, meaning 24/7 staffing and for dedicated function fire alarm equipment which do not send signals to a supervising station.

- Angie Dayfield, Senior Fire Protection Consultant



SEMINAR INFORMATION

Keep you and your staff up to date on the latest Fire, Building and Life Safety code changes and equipment by attending one of our seminars. Fire Safety Consultants, Inc. is teaching seminars throughout the United States, led by our experienced staff of Matt Davis, Keith Frangiamore, Brent Gooden & Warren Olsen. Whether you are a Contractor, Architect, Technician, Engineer or an Authority Having Jurisdiction, each seminar is full of practical insight and first-hand experiences to help you comply with applicable codes and standards. Fire Safety Consultants, Inc. can also provide custom seminars at your location. Be sure to check out our [website](#) to view our listing of available seminars or to check the schedule to see what we are teaching next! Contact us to learn more by emailing info@firesafetyfsci.com or by calling our corporate office at (847) 697-1300 x223.



EMPLOYEE SPOTLIGHT

Heidi Blakely

When you receive an inspection report from our Corporate Office in Elgin, that means that Heidi Blakely has reviewed the inspector's notes, formatted the report and verified the distribution list on the municipality's Information Sheet. As one of the Administrative Assistants in our Corporate office, Heidi assists with parts of the inspection services area and has also started to work with the seminars and consulting areas of the business. You may have also spoken to Heidi when calling the Corporate Office, as she also answers many of the phone calls when callers select option 9 to speak with a live attendant. Heidi has been with Fire Safety Consultants, Inc. for a little over a year now and seems to be getting acclimated with the many different areas of the business.

Before Heidi joined us at Fire Safety Consultants, Inc., she was an administrative assistant for a private equity firm and prior to that, she spent 11 years as a Teaching Assistant with St. Charles School District 303



and 17 years as a professional wedding photographer. Heidi has been married for 26 years and has two adult daughters. Her family enjoys nature, travel, and hiking whenever possible. Heidi's hobbies include gardening, feeling the sunshine on her face, fishing and participating in new experiences.



WE'RE LISTENING!

Tell us what you are interested in learning about!

Email us at: info@firesafetyfsci.com