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

SUMMER 2019 QUARTERLY REVIEW

 BUILDING PLAN REVIEW

 FIRE SAFETY PLAN REVIEW

 CONSULTING SERVICES

PRESIDENT'S MESSAGE

An FSCI update from Keith Frangiamore, FSCI President

The first half of this year has been the busiest in our 36 year history as our FSCI team completed the most plan reviews and inspections ever. Great job team!

As Fire Safety Consultants Inc. continues to grow, with the strong support of PSI, we have hired several new staff members including a new fire protection plan review consultant for our Michigan office; and a new building plan review senior consultant, a new field services consultant and a summer administrative assistant in our Illinois office.

We recently completed the installation of the new cloud-based telephone system at FSCI that will improve our customer service by creating a seamless office environment across all PSI/FSCI offices. This new system includes an auto-attendant that can quickly route calls efficiently to the proper person within any of our offices.

Also this quarter, we began working on our electronic plan review process including the testing of ShareFile software for transferring large documents (plans and specifications) and the purchase of a new plotter that can print large scale drawings. During this initial testing phase, we've partnered with one of our Oklahoma clients to evaluate the most effective and efficient ways to streamline our electronic plan review process. These projects are very large electronic files that allow us to fully test the capability of the software. Our goal is to have the process to the point where we can begin beta testing with a handful of clients in early 2020.



SIGNIFICANT CHANGES TO THE 2019 NATIONAL FIRE ALARM AND SIGNALING CODE NFPA 72

-Warren E. Olsen CFPS, CBO

Chapter 26 Immediate Past - Chairperson, NFPA 72

While technical committee work in Indianapolis begins this month on the 2022 edition of NFPA 72, it was less than a year ago that the National Fire Protection Association published the most-recent edition of the National Fire Alarm and Signaling Code. The 2019 edition of the document was released to users in September of 2018. Within the document are the results of the more than 800 Public Inputs submitted by interested individuals representing themselves, or interest groups, plus additional inputs from the code's technical committees. The following is a synopsis of some of the changes made to the 2019 edition.

Beginning with Chapter 1 of the document, regular users will notice that the code is now providing requirements that previously were found in NFPA 720:

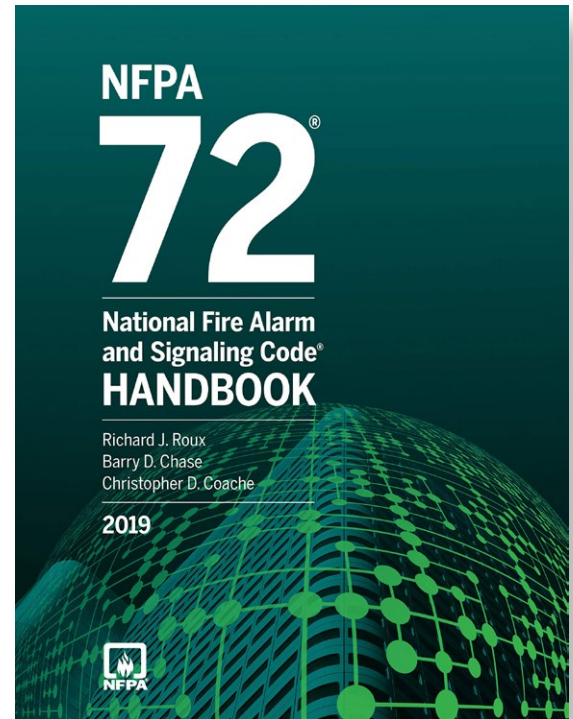
- The scope of the document now includes requirements for the application, installation, location, performance, inspection, testing and maintenance of carbon monoxide detection and warning equipment. Requirements formally found in the retired NFPA 720 are now integrated in many of the chapters of NFPA 72.
- Section 1.1.3 makes it clear that carbon monoxide detection is primarily concerned with life safety, not property protection.

Also beginning in the first chapter, and then found throughout the document, users of the 2019 edition should notice that nearly all of the exceptions to specific code sections have been removed from the document. At the direction of NFPA, technical committees reworded exceptions, and their charging paragraphs, so they would become positive code language. An example of this change might include the phrase "...except as permitted by sections XXX.1 thru XXX.5 the following requirement shall apply." It is extremely important that the user of the code read all sub-sections below a particular charging section as permitted variations to the section may be included in sub-section text.

Another usability change that has occurred throughout the code is the revision to all sections that included more than a single requirement. Technical committees were directed to review each code section under their control and to separate out multiple code requirements found in an individual section.

Several additions and changes were made to terms found in Chapter 3, Definitions:

- Many new terms related to batteries were added. The term sealed lead-acid battery that most people are familiar with, has been replaced by the term valve-regulated lead acid (VRLA) battery. This term more accurately describes the battery and is commonly used in the battery industry.
- Many new definitions related to carbon monoxide detection have been carried over from NFPA 720.



- A definition for the term High Volume Low Speed (HVLS) Fan was added because of new requirements located in Chapter 21 where the integration of HVLS fans and waterflow switches occur through the fire alarm system.
- The term "immediately" replaces the term "promptly" in several places within the requirements for supervising station alarm systems. This term is explained in the annex as meaning within 90 seconds and applies to the retransmission of alarm signals from a monitoring center to the fire department communications center. The technical committee, over several code cycles, has continued to resist moving the 90 second requirement from the annex material to the body of the code which would make it enforceable.

Several changes occurred to Chapter 7 which addresses documentation.

- The term for the requirement to provide 20% additional secondary power battery capacity has been changed from "derating factor" to "safety margin".
- The former minimum requirement to document the communication pathway between the fire alarm control unit and the supervising station has been clarified to more clearly spell out the required intent. Documentation is only required to be provided for the pathway between the control unit and the transmitter being used. This requirement is intended to provide the plan reviewer insight on which type of transmitter will be used to send signals to the supervising station. Several transmitter options are available to a fire alarm system designer and

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EMPLOYEE SPOTLIGHT

Warren Olsen

Warren Olsen came to Fire Safety Consultants, Inc. in March of 2004. Prior to joining FSCI, Warren spent 30 years in the fire service, retiring as a Battalion Chief for the Hoffman Estates Fire Department. Along with his time in the fire service, Warren has over 40 years of experience in fire protection consulting and is certified as a Building & Fire Code Official, Fire Inspector, Fire Investigator and Fire Protection Specialist.

As Vice President of Building/Life Safety, Warren is responsible for managing the Building/Life Safety Division of FSCI, which includes overseeing the plan review process for all building code and engineering disciplines including inspections, serving as Chair for the FSCI Marketing & Seminar Committees as well as teaching a wide variety of seminars for both FSCI and NFPA.

Warren received a Special Achievement Award from the NFPA at the 2018 Annual Conference and Expo and has also been honored as a Lifetime Member of the NFPA.



EMPLOYEE SPOTLIGHT NEWS

We would like to acknowledge these employees for successfully passing their NICET exams!

-NICET Level 2 (Part 1) ITM Water Based Systems
Matt Davis

-NICET Level 1 Water Based Systems
Kyle Harding

-NICET Level 2 Water Based Systems
Hannah Rodriguez & Scott McBride

-NICET Level 1 Fire Alarm Systems
Suzie Gardner & Ryan Case

Congratulations to them all!



SEMINAR INFORMATION

Stay 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. FSCI 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



LITTLE KNOWN FACTS

NFPA 17A – Non-listed Appliance Protection

Often, restaurants will install appliances such as Gyro machines, Tandoori Ovens, and Pizza Ovens that do not utilize listed protection means under the kitchen suppression system manufacturer installation manual. Under Section 5.1 of NFPA 17A, it states that the “protection of cooking operations shall be listed”. So, what do you do in one of these cases where the protection of an appliance isn’t listed? In some cases the suppression system manufacturers will put out bulletins providing their recommendations on how these appliances should be properly protected. When the equipment manufacturer does not provide this information the installing contractor should procure and provide in writing, through a letter or email correspondence, a response from the system manufacturer that gives their recommended coverage for the appliance to the plan reviewer or AHJ.

Hannah Rodriquez – Fire Protection Consultant

NFPA-72 Household Carbon Monoxide Alarms

The requirements for household carbon monoxide alarms, originally found in NFPA 720, are now incorporated into Chapter 29 of NFPA 72. Chapter 29 now includes the installation of smoke, fire, or carbon monoxide (CO) alarms or systems. Unlike smoke or fire detection, CO alarms shall produce a temporal 4 (T4) signal (not to be confused with the T3 signal for a smoke alarm) and shall have a minimum rating of 85dBA at 10 feet. The placement of CO alarms is critical to ensure an early warning to residents. Chapter 29 does a great job specifying where CO alarms shall be installed within a residence. Where required by other laws, codes or standards for a specific type of occupancy, listed carbon monoxide alarms or detectors shall be installed in the following locations:

- Outside of each separate dwelling unit/ sleeping area, mounted within 21 ft. of any door to a sleeping room, (distance measured along the path of travel),
- On every occupiable level of a dwelling unit, including basements, excluding attics and crawl spaces,

- In all sleeping rooms and guest rooms containing fossil fuel burning appliances, and/or other locations where required by applicable laws, codes, or standards.

Unlike the properties of smoke and fire, CO is a colorless, tasteless and odorless gas making it undetectable by the sense of smell, taste or sight. The main cause of CO poisoning is from improperly operating fossil-fuel burning appliances found in a typical home such as: furnaces, water heaters and stoves. Additional causes of CO are wood burning stoves, fireplaces and vehicles left running in an attached garage.

Ryan Case, Fire Protection Consultant

Wired to use wireless: What you need to know before your wireless system is a go

The demand for wireless fire alarm devices and appliances has steadily increased over the years as innovative technology has evolved on both the initiating and notification side of the fire alarm system design. An increased number of fire alarm submittals are being received which include the use of wireless devices and appliances to accommodate the retrofitting of older buildings. The design of these wireless systems must adhere to the code requirements found in Section 23.16 of NFPA 72. Low-powered radio equipment must be specifically listed for the purpose.

Wireless devices may use a dry cell battery(s) which is capable of maintaining full power of the device for at least one year prior to reaching the depletion threshold of the battery. A low battery condition shall be transmitted as a trouble signal for at least 7 days and shall be distinctive from other alarm, supervisory or trouble signals. The affected transmitter shall be visibly identified. Each transmitter shall service only on device. Catastrophic battery failure shall cause a trouble signal identifying the effected low-power radio transmitter/transceiver at the system control unit. When silenced, the trouble signal shall automatically re-sound at least once every 4 hours. When a wireless initiating device is actuated an alarm signal shall be automatically transmitted by the low power radio, and repeated, for up to 60 seconds until the radio receives a confirming receipt of signal by the control unit.

Wireless notification appliances must meet many of the above criteria for wireless devices as well as the requirements for wired appliances.

Suzie Gardner – Fire Protection Consultant



WE’RE LISTENING!

Tell us what you are interested in learning about!

Email us at: info@firesafetyfsci.com