



FISC Bulletin Board

IAAI Fire Investigation Standards Committee (FISC)

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Update on NFPA 921, 2017 Edition AND Introducing NFPA 1730: A New NFPA Standard for Fire Investigation Services

1. Introduction

In this article, the IAAI Fire Investigation Standards Committee (FISC) is pleased to provide IAAI members a synopsis of the work in progress on the 2017 edition of *NFPA 921 Guide for Fire and Explosion Investigations*. We are also introducing the inaugural edition of a new NFPA standard that took effect in June 2015: *NFPA 1730 Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations*. This standard addresses the organization and deployment of fire prevention services, including fire investigations in a "fire prevention organization," typically a public fire department.

2. NFPA 921: Progress Towards 2017 Edition

Our members should be familiar with the *NFPA 921 Guide for Fire and Explosion Investigations*, 2014 edition, which the IAAI acknowledges is widely recognized as an authoritative guide for the fire investigation profession.¹ The IAAI uses *NFPA 921* for training and certification programs.²

Work towards the 2017 edition of *NFPA 921* is underway. This segment briefly explains the revision process including key dates for public input, as well as highlighting some of the changes to watch for in the First Draft of this new edition.

2.1. Revision Process & Key Dates

The National Fire Protection Association (NFPA) publishes *NFPA 921*. The NFPA is a "standards developing organization" or SDO. In the United States, the American National Standards Institute (ANSI) coordinates the voluntary standardization system and accredits SDOs.³ ANSI ensures that in producing industry standards, the SDOs conform to consensus procedures. These procedures provide a fair and open system based on due process. These due process rules protect the rights and interests of everyone who participates in the development of an industry standard, either as a member of the consensus body or through public comment.⁴

As an SDO, the industry standards produced by the NFPA include "codes," "standards," "recommended practices," and "guides." The *NFPA 921* "guide" is one of these industry standards, so its revision process conforms to the ANSI regulated due process rules. This means that unlike most books published by one or more authors, the revisions to *NFPA 921* are open for public input and comment and proposed revisions are decided by consensus.

The NFPA Technical Committee on Fire Investigations (NFPA 921 TC) is composed of approximately 60 members and is responsible for *NFPA 921*. Its members represent a wide range of private organizations, government agencies, and experts from various fields involved with fire and investigations.⁵ The IAAI has formal representation on the NFPA 921 TC by FISC member Joseph J. Sesniak (principal) and IAAI Past President Rodney J. Pevytoe (alternate). The Chair of the NFPA 921 TC, Charles R. (Randy) Watson is on the IAAI Board of Directors.

2.2. Next Steps and Deadlines

At the time of writing this article (in August 2015), the NFPA 921 TC has already taken the following steps in developing the 2017 edition of *NFPA 921*:

1. It has solicited public inputs for the First Draft of the 2017 edition (the closing date for public inputs was January 5, 2015);
2. Since 2014 it has held meetings and worked through task groups to develop proposals for its own committee inputs for the First Draft, and;
3. It has met to act on all public inputs and finalize committee inputs (submitted to the TC for balloting in August 2015) to create the First Draft of the 2017 edition.

By the time this article is published, inputs from the committee and from the public that pass a 2/3 ballot of the NFPA 921 TC will be available online as a "First Draft Report" of the *NFPA 921* 2017 edition. The First Draft is in legislative format (with proposed additions underlined and deletions in strikeout font), making it easy to see how the proposed revisions will look. Statements containing the NFPA 921 TC's reasoning for each change, including its response to public inputs and rationale for committee inputs, are also available for review.

Members of the public, meaning anyone who has an interest in *NFPA 921*, may either participate further in the development of the new edition, or simply track these developments. Below are the next steps and deadlines that occur between October 2015 and July 2016 towards finalizing the 2017 edition of *NFPA 921*:

1. The closing date (deadline) for public comments on the First Draft is November 16, 2015.
2. The NFPA 921 TC will hold its meeting on or before May 2, 2016. The TC will then be balloted in June and July 2016 on the changes decided in that meeting.

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1. The NFPA will post the Second Draft of the 2017 edition for public review on July 16, 2016.

Following the posting of the Second Draft of the new edition, those who have participated in the revision process by making public input or comment, and who are not satisfied with the work of the NFPA 921 TC may have further rights, which are detailed by the NFPA's rules.⁶ If no further action is taken on the Second Draft, the *NFPA 921* 2017 edition becomes a "consent standard" and will be issued by the NFPA in mid-November 2016.⁷

1.1. Public Comments on the First Draft Deadline: November 16, 2015

Anyone (including IAAI members) who would like to either participate or track developments towards the 2017 edition should note the above deadlines. For those wishing to submit public comments on the First Draft revisions can do so on or before November 16, 2015 at www.nfpa.org, in the *NFPA 921 Document Information Pages, Next Edition* tab: <http://www.nfpa.org/codes-and-standards/document-information-pages?mode=code&code=921&tab=nextedition>. A link on the *Next Edition* page provides more information on how to submit public comments.

1.2. Key Changes to Watch for In First Draft of NFPA 921 2017 Edition

At the time of writing, the NFPA 921 TC has not finalized the First Draft of *NFPA 921* 2017 edition. However, following is a list of the chapters or topics where the most significant changes are expected:

- Updates to the Chapter 2 *Referenced Publications* and Annex C *Informational References*, as well as to references cited throughout the 2014 edition. This means the new citations or edition dates will be included for publications referenced or cited by *NFPA 921*, such as new editions of ASTM standards.
- Updated and new definitions in Chapter 3. While not many changes are anticipated here, any change in definitions of foundational concepts are worthy of note.
- Clarifications to the scientific method and confirmation bias sections of Chapter 4 *Basic Methodology*.
- New material in the introduction to Chapter 5 *Basic Fire Science* to address the basic concepts of fire dynamics. In Chapter 6 *Fire Patterns*, revisions to sections dealing with clean burns, holes in floors, irregular patterns, as well as the addition or substitution of color images to better illustrate concepts explained in the text of the chapter.
- A rewriting of Chapter 8 *Active Fire Protection Systems* to improve its organization and content, including the addition of new images.
- Changes to a few sections of Chapter 9 *Electricity and Fire* (such as ground fault and arc fault circuit interrupters, overheating in duplex receptacles, insulation damages, and lightning strikes) to improve or clarify content.
- Changes throughout Chapter 16 *Documentation of the*

Investigation, particularly respecting photography, digital photography, and report writing.

- In Chapter 27 *Motor Vehicle Fires*, revisions to several sections throughout the chapter.
- Revisions to paragraphs relevant to notifying interested parties (recommended to avoid possible claims of spoliation) are expected in Chapter 7 *Building Systems* and Chapter 15 *Planning the Investigation*.
- Although not extensive, also watch for changes to Chapter 18 *Origin Determination* and Chapter 19 *Fire Cause Determination*. Since these chapters are at the heart of fire investigations, alterations to even a few sentences or paragraphs may be important to investigators in a given fire scenario.

We expect revisions to almost every chapter, so even if not mentioned in the above list, we highly recommend that readers review all changes in the First Draft, particularly to chapters that are particularly relevant to one's job responsibilities. The NFPA 921 TC welcomes public comments through the NFPA public comment mechanism!

1. Introducing NFPA 1730

Earlier this year, the NFPA published a new standard entitled *NFPA 1730 Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations (NFPA 1730)*. It contains the minimum requirements to address staffing and workload indicators for the services typically provided by the fire prevention branch of public fire departments, including fire investigations. While this new standard has the potential to impact everyone in the fire investigation community, particularly in the public sector, those involved in the management or organization of Fire Investigation services are particularly encouraged to become familiar with *NFPA 1730*.

1.1. Background of NFPA 1730

It started late in 2003 when the Technical Committee (TC) responsible for NFPA 1201 (now called *Standard for Providing Fire and Emergency Services to the Public*) was assigned a new project. The project was the brainchild of the Southern Regional Fire Code Development Committee (SRFCDC), which represents the southern states. The SRFCDC asked the NFPA to develop a document on the *Organization and Deployment of Code Enforcing Operations, Public Fire and Life Safety Education Operations, and Fire Investigation Operations*. In making this request, SRFCDC observed that the NFPA has created two documents, NFPA 1710 and NFPA 1720, to address the staffing requirements and workload indicators for fire suppression. (Some might recall the giant controversy over staffing of fire apparatus—e.g. the numbers of persons required on each responding fire truck— that surrounded the development of these two standards.) However, there were no standards to address staffing requirements and workload indicators that are appropriate on the prevention side of public fire service, including code enforcement, public education, and fire investigations.

For example, nowhere is there a reliable indication of how many times in how many years fire inspections are to be conducted in various types of occupancies. Nor are there

many studies available to provide reliable indicators for staffing and workload in these areas of fire prevention. City and County managers ask fire departments to provide substantiation to support budget requests for staffing and funding of fire operations. For suppression needs, fire departments can turn to NFPA 1710 and NFPA 1720. There was nothing comparable for fire prevention operations, including fire investigations.

Thus, the SRF CDC requested that the NFPA develop a new document to address code enforcement, public education, and fire investigation. The NFPA Standards Council originally responded by asking the TC responsible for NFPA 1201 to take on this assignment, likely because there are already global statements addressing these fire prevention issues in NFPA 1201.

Subsequently, the International Association of Fire Chiefs (IAFC) requested the NFPA to establish a new project on organization and deployment of fire prevention operations. This means that the IAFC asked that the NFPA Standards Council form a new Technical Committee to create a new document on the topics addressed by the SRF CDC. The Standards Council solicited input on this request from the public and from the NFPA 1201 TC. The consensus was that this was a viable project, but that it was outside of the scope of the NFPA 1201 TC. Thus, the NFPA 1730 project was approved and a new TC appointed.

NFPA 1730 took a period of years to go through the mandatory standards development process required of NFPA as an SDO (summarized above). NFPA issued the first edition of NFPA 1730 in May 2015 and it took effect on June 15, 2015.⁸ As with other NFPA National Fire Codes®, NFPA 1730 is available to read online, free of charge, at www.nfpa.org. For free access, follow the instructions at the [www.nfpa.org Codes and Standards](http://www.nfpa.org/Codes%20and%20Standards) section, [Free Access](http://www.nfpa.org/Codes%20and%20Standards/Free%20Access) page, at <http://www.nfpa.org/codes-and-standards/free-access>.

Chapter 8 of NFPA 1730 deals with the minimum requirements for organizing and deploying fire investigation activities. It is a short chapter of about a page-and-a-half and makes for an interesting read. Here are some of the high points:

- **Mandatory SOGs:** Standard operating guidelines (SOGs) are required for all aspects of fire investigation services including staffing levels, for the collection, examination, testing, preservation, and storage of evidence in accordance with relevant ASTM standards, and for the investigation of complex investigations.⁹
- **Mandatory Investigations:** It makes the investigation of the “origin, cause, and circumstances of any fire, explosion, hazardous materials incident, or other hazardous condition that occurs in its legal jurisdiction” mandatory.¹⁰
- **Mandatory Reporting:** It makes it mandatory for a fire prevention organization (*i.e.* fire department) to:

[F]ully report or . . . cause to be fully reported all investigations of the origin, cause, and circumstances of any fire, explosion, hazardous materials incident, or other hazardous condition that occurs in its legal jurisdiction as required by local law and for the purpose of determining community risk.¹¹

Not surprisingly, NFPA 1730 requires fire investigators to comply with the job performance requirements of NFPA 1033 Standard for Professional Qualifications of

Fire Investigator. Further, its annex material references NFPA 921 in terms of the basic methodology of fire investigations (the scientific method), and for the conduct of complex investigations.

NFPA 1730 has huge implications for budgetary issues concerning fire departments. It may also be relevant to requirements for accreditation of organizations providing fire investigation services. We highly recommend that to stay well informed about leading issues in their field, IAAI members take the time to access and read this important new standard.

2. Conclusion

One advantage of IAAI membership is access to the flow of information concerning developments in the standards world that are relevant to fire investigators and those whom employ them. Therefore, in closing, we encourage our IAAI members to take the time necessary to review the First Draft of the NFPA 921 2017 edition, making public comments if needed. Further, to take advantage of the free access to NFPA 1730 and consider its effects on the providers of fire investigation services.

Acknowledgements

Thanks to the FISC members for their continued work of suggesting ideas for this column and writing or reviewing drafts. These FISC members are: Steven J. AVATO, Mark A. BEAVERS, Ross BROGAN, Mike DONAHUE, Mike HIGGINS, Rick JONES, Raymond J. KUK, Glenn LAUPER, Hal C. LYSON, Peter MANSI, Major J. Ron McCARDLE, Wayne J. McKENNA, Rick MERCK, Angelo PISANI, Jr., Christopher D. PORRECA, Gerard H. (Jerry) RUDDEN, Joe SESNIAK, Amanda SILVA, Mark A. TEUFERT, Joe TOSCANO, George A. WENDT, Jeff WILLIAMS

Endnotes

- 1 Int'l Ass'n of Arson Investigators, *IAAI Position Statement*, Fire & Arson Investigator, Vol. 66 No. 1, Jul. 2015, at 3.
- 2 *Id.*
- 3 *About ANSI—Frequently Asked Questions*, ANSI (2015), http://www.ansi.org/about_ansi/faqs/faqs.aspx?menuid=1.
- 4 *Id.*; Am. Nat'l Stand. Inst., ANSI ESSENTIAL REQUIREMENTS: DUE PROCESS REQUIREMENTS FOR AMERICAN NATIONAL STANDARDS 4 (Jan. 2015 ed.).
- 5 To access the current list of NFPA 921 TC members, including any organization or agency they represent, see *NFPA 921 Document Information Pages, Technical Committee Tab*, NAT'L FIRE PROT. ASS'N, <http://www.nfpa.org/codes-and-standards/document-information-pages?mode=code&code=921&tab=committee>.
- 6 Anyone who submits a public input or public comment and is not satisfied with the work of the NFPA 921 TC concerning that public input or public comment can explore their further due process rights by reviewing the NFPA rules, available at: <http://www.nfpa.org/codes-and-standards/standards-development-process/how-codes-and-standards-are-developed/standards-development-process>. The deadlines for acting on such further rights respecting NFPA 921 are posted on the *NFPA 921 Document Information Pages, Next Edition* tab, available at: <http://www.nfpa.org/codes-and-standards/document-information-pages?mode=code&code=921&tab=nextedition>.
- 7 See *NFPA 921 Document Information Pages, Next Edition* tab, NAT'L FIRE PROT. ASS'N, <http://www.nfpa.org/codes-and-standards/document-information-pages?mode=code&code=921&tab=nextedition>.
- 8 TECH. COMM. ON FIRE PREVENTION AND DEPLOYMENT, NFPA 1730 STANDARD ON ORGANIZATION AND DEPLOYMENT OF FIRE PREVENTION INSPECTION AND CODE ENFORCEMENT, PLAN REVIEW, INVESTIGATION, AND PUBLIC EDUCATION OPERATIONS, 2016 ed. [hereinafter NFPA 1730], 1.
- 9 *Id.*, ss. 8.6 & 8.7.
- 10 *Id.*, ss. 8.7.1.
- 11 *Id.*, ss. 8.8.1.