

Quick Update on NFPA 1033, 2022 ed. and NFPA 921, 2021 ed.

1. Introduction

In this Bulletin Board, the *Fire Investigation Standards Committee* (FISC) brings you a quick update on NFPA 1033 *Standard for Professional Qualifications for Fire Investigator* and NFPA 921 *Guide for Fire and Explosion Investigations*. In short, the First Draft of the next edition of NFPA 1033 has been published online and is available for anyone to view. As for NFPA 921, the latest (2021) edition was issued by the NFPA Standards Council on April 5, 2020 with an effective date of April 25, 2020. A Tentative Interim Amendment (TIA) is also underway to correct two important oversights in the new edition of NFPA 921.

As we complete the next edition of NFPA 1033 and await a new cycle for the next revision of NFPA 921, the Standards Council has appointed new Chairs for each of these two committees. This column will announce the new Chairs. It also identifies where you can explore proposed revisions to NFPA 1033 and review the new NFPA 921 edition. As you read on, keep in mind that this column was written in mid-September 2020 and that by the time you receive this issue of the *F&AI Journal*, matters addressed here may have progressed. Therefore, for the latest information, be sure to check the *NFPA Document Information Page*¹ for each of these publications.

2. New Chairs Announced

NFPA regulations state that a person can serve as chair of an NFPA Technical Committee (TC) for either 10 years or three revision cycles. IAAI 2nd Vice President, Charles "Randy" Watson, IAAI-CFI®, IAAI-CI, CFEI, CVFI, CFII, F-IAFI served as the chair of the TC responsible for NFPA 921 for three cycles from 2008 to 2020 and thus his tenure as NFPA 921 Chair has ended. Vice President Watson has had a long-term affiliation with NFPA 921, being appointed as member in 1991 and serving as the TC's Secretary from 2002 to 2007. During this time, he has been most helpful to FISC in bringing information about NFPA 921 to you through this column by providing suggestions for content in addition to reviewing for accuracy all of the articles concerning NFPA 921. Vice President Watson will continue to serve on the NFPA 921 TC as a principal member. He will also continue as the chair of the new NFPA Fire Investigation Units TC (responsible for NFPA 1321 *Standard for Fire Investigation Units*, which is in its developmental stages), and as an alternate on the NFPA 1033 TC, a position he has held since 2009.

FISC's own George Wendt, IAAI-CFI® has also recently retired as chair of the NFPA 1033 TC. Mr. Wendt's contributions in the areas of fire investigator qualifications and certification have been commendable. He has been a principal on the NFPA 1033 TC since

1998, serving as chair for the most recent (2014) edition. Mr. Wendt is a two-term Board member for the IAAI and a long-time member of the IAAI Certified Fire Investigator Committee. He has also served as a member of the Organization of Scientific Area Committees for Forensic Science (OSAC), Fire & Explosion Investigation Subcommittee.

During the August 2020 meeting, the NFPA Standards Council appointed new chairs. James H. Shanley, Jr. PE, CFEI, 2nd Vice President at Travelers' Engineering Laboratory, was appointed as the new chair of the NFPA Fire Investigation TC responsible for NFPA 921. Mr. Shanley, a long-time IAAI member, has participated on the NFPA 921 TC since 1988, has been an alternate on the NFPA 1033 TC for almost a decade, and is also a principal on the new NFPA Fire Investigation Units TC. Mr. Shanley also serves as Fire Chief of the Pleasant Valley (CT) Volunteer Fire Department for over 15 years, balancing his work as a fire protection and forensic engineer with front line firefighting experience.

Also appointed by the NFPA Standards Council was Daniel P. Heenan, IAAI-CFI®, MCSFS, IAAI-CI, who is currently Assistant Fire Chief at Clark County (NV) Fire Department. Mr. Heenan will assume the role as chair of the NFPA 1033 TC. He is well known to IAAI members as a Past President of the IAAI (2015-16), former ATF National Response Team Leader, NRT Program

Manager and ATF CFI. Mr. Heenan has been a member of the NFPA 1033 TC since 2010.

Not only has there been a change of TC chairs for NFPA 921 and NFPA 1033, but both committees are now supported by a new NFPA Staff Liaison. In that context we are pleased to introduce Ken Holland, Senior Specialist at the NFPA, who has been assigned to both the NFPA 921 and NFPA 1033 committees. Mr. Holland has been with the NFPA 13 years. Prior to that he was a full-time firefighter paramedic for the Bridgewater (MA) Fire Department. Mr. Holland will be working with several NFPA committees in the new Emergency Response and Responder Safety (ERRS) division, which includes NFPA 921, NFPA 1033, and NFPA 1321.

On behalf of FISC and the IAAI membership, we would like to thank Vice President Watson and Mr. Wendt for their years of commitment to the NFPA in steering the course for NFPA 921 and NFPA 1033 during these important times of change for the fire investigation community. We also extend our best wishes to Mr. Shanley and Mr. Heenan as they begin their tenures as chairs of these important projects. Finally, we welcome Mr. Holland to the important role of staff liaison for both TCs.

3. NFPA 1033, 2022 Edition Timeline

NFPA 1033 Next Edition Timeline Highlights

July 10, 2020	First Draft Report posting date
October 9, 2020	Public Comment Closing Date
October 28-29, 2020	TC's Second Draft Meeting
April 5, 2021	Second Draft Report posting date
April 26, 2021	NITMAM Closing Date
May 24, 2021	NITMAM Posting Date

NFPA 1033's First Draft Report for the next edition was posted in July 2020 and is available for free viewing on the NFPA 1033 [Document Information Page](#)² "Next Edition" tab. This report contains:

1. All Public Inputs received from when the 2014 edition was published until the Public Input closing date in January 2019;

2. The NFPA 1033 TC's responses to each Public Input, which were developed during two First Draft meetings of the TC held in 2019 and 2020;
3. First Revisions together with a TC "Committee Statement" to substantiate each revision (First Revisions are proposed changes to NFPA 1033, 2014 ed. developed by the TC taking into consideration the Public Inputs);
4. Results from the TC ballots on all First Revisions (a two-thirds majority vote is required for a First Revision to be included in the First Draft Report); and,
5. Legislative text showing changes each First Revision makes to NFPA 1033, 2014 ed.

We encourage you to read the First Draft Report. Not only does it show the proposed revisions to NFPA 1033, it also includes the reasoning of those who proposed changes and the TC's substantiation for each revision.

The next step in the development of the 2022 edition of NFPA 1033 is the Public Comments Stage. Any interested party has until the **Public Comment Closing Date of October 9, 2020** to submit a Public Comment online at the NFPA 1033 [Document Information Page](#), Next Edition Tab.³ These comments will be assembled and distributed to the NFPA 1033 TC for review. The TC will meet on October 28 and 29, 2020 to consider all Public Comments and prepare Second Revisions for the new edition.

Following the Second Draft meeting, the TC will be balloted on the Second Revisions. Like the procedure in the First Draft stage, all Second Revisions that receive a two-thirds majority vote on the ballot will be included as Second Revisions in the Second Draft Report. The Second Draft Report is scheduled to be posted online at the NFPA 1033 [Document Information Page](#),⁴ Next Edition Tab on April 5, 2021.

After the posting of the Second Draft Report, there is a process called a "Notice of Intent to Make a Motion" (NITMAM) available to anyone not satisfied with the work of the TC and who qualifies pursuant to the NFPA regulations. A NITMAM is notice of a motion a person plans to make to try to change the results of the TC's work as published in the Second Draft. The intent is to have the motion heard by the NFPA Membership at the NFPA Technical Meeting. The NITMAM Closing Date is April 26, 2021.

If no NITMAMs are filed, it means that none of the changes proposed in the Second Draft are challenged. If this happens the NFPA regulations provide that the NFPA 1033, 2022 ed. will be sent directly to the NFPA Standards Council to be issued as a "Consent Standard"

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once work by the NFPA editorial staff is completed later next year.

The First Draft Report contains many changes to NFPA 1033. By way of example, one significant change is with regards to the infamous "List of 16 Topics" currently in section 1.3.7, requiring the investigator to acquire and maintain "an up-to-date basic knowledge" of each one. In the First Draft Report, this list has been reorganized and moved into Chapter 4 where these topics have been integrated into each relevant "requisite knowledge" section of the Job Performance Requirements (JPRs).⁵ The TC further added a provision that, "The fire investigator shall complete and document a minimum of 40 hours of continuing education training every five years by attending formal education courses, workshops and seminars." As with every aspect of the main text of the NFPA 1033 Standard (excluding the annexes), this new continuing education requirement is mandatory.

The following Committee Statement explains the reasoning behind these proposed revisions:

The subjects listed in Sec. 1.3.7 have been the source of confusion for some readers and users of the Standard.

The committee proposes to organize the subjects found in the list of subjects in Sec. 1.3.7, which were directly related the subjects listed as "requisite knowledge" in the JPR's, §4.2 through §4.7. The revision organizes the subjects into four broad categories, with related sub-categories, accounting for the "requisite knowledge" of all the JPR's.

The subject matter was moved to a more appropriate and logical location, in Chapter 4, "Fire Investigator," where the JPR's are located, rather than Chapter 1 "Administration." This reorganization, and proposed new §4.1.7.1, effectively serves as a summary of the "requisite knowledge" to be found in Chapter 4 for the tasks in the individual JPR's (§4.2 through §4.7). Secondly, this further links the four categories and subcategories directly to the "requisite knowledge" found in the JPR's. The linkage allows the reader to understand that the subjects in this new proposed section 4.1.7.1 are the same subjects they will find as "requisite knowledge" in the JPR's in Chapter 4.

Also, the fire investigator should be required to complete a minimum amount of documented training over a period of time. This is necessary to meet the basic knowledge requirements contained in this standard and related to the JPRs.⁶

These and other revisions, if they make it through the next stages of the development process, will have broad implications for the minimum qualifications and training of fire investigators, including CFI programs.

In summary, now is the time for fire investigators and others involved in the profession to get up to speed concerning revisions to NFPA 1033, as a new edition will likely be issued in late 2021. As this standard is only revised, on average, every five years, each edition is with us for a longer time than is NFPA 921, which is typically on a three-year revision cycle.

4. NFPA 921, 2021 Edition Now Available

The 2021 (and earlier) editions of *NFPA 921* are available on the NFPA 921 [Document Information Page](#).⁷ You can click the "free access" link on that page and sign on to the NFPA.org website using your free account to view the complete text of NFPA 921, 2021 ed. A link on the upper left corner of that page will take you to the NFPA Catalog where you can purchase your own copy.

5. Quick Reference Guide to Identifying Changes in NFPA 921, 2021 Edition

The print copy of the 2021 edition has a section on the inside front cover entitled *Revision Symbols Identifying Changes from the Previous Edition*. This section explains the new symbols indicating changes from the 2017 edition. At the time we are writing this column, the 2021 ed. PDF has not been published. We assume that the same symbols will be used in the PDF, although they are not evident in the online "free access" version.

These symbols have changed from the "usability features" of the 2017 edition that helped readers to track changes. Prior to the 2017 edition, changes in each successive edition were indicated using a vertical rule (*i.e.* line) in the margin beside the paragraph, table, or figure in which the change (other than editorial changes) occurred. Deletions were indicated by bullets (•) between the paragraphs that remained.

Here is an overview of the 2021 edition symbols:

✓ ■: Text revisions are shaded in grey. *In the 2017 edition, even if only a word or sentence in section had changed, the whole section was shaded in gray. In the 2021 edition, shading is more selective, showing changes to even a few words in a section.*

✓ Δ: A shaded triangle/Delta symbol (Δ) before a section number indicates that words within that section were deleted and a Δ to the left of the table or figure number indicates a revision to an existing table or figure.

- ✓ **Δ**: When a chapter was heavily revised, the entire chapter is marked throughout with the **Δ** symbol.
- ✓ **●**: Where one or more sections were deleted, a bullet (●) is placed between the remaining sections.
- ✓ **N**: Chapters, annexes, sections, figures, and tables that are new are indicated with a shaded, italicized, capital letter N (**N**) (as in the 2017 edition).⁸

These symbols are helpful and are an improvement over those used in the 2017 edition. However, readers should be cautious in relying on the symbols as they are not as reliable as:

- a) Making a side-by-side comparison of the 2017 edition with the 2021 edition; or,
- b) Tracking the revisions shown in legislative text through the First Draft Report and Second Draft Report to the final, 2021 edition.

There are distinct advantages to reviewing revisions as they evolved through the two draft reports. The draft reports include the rationales of those submitting Public Inputs or Comments, together with the TC's response to those submissions. The reports also include a "Committee Statement" for each revision, which provide the TC's substantiation for each one.

6. Tentative Interim Amendment (TIA) for NFPA 921, 2021 Edition

The NFPA Standards Development Process has a procedure known as a Tentative Interim Amendment (TIA) for making amendments to an NFPA standard that are of an emergency nature such that they cannot wait until the next regular revision cycle. (When used in this context, the word "standard" includes the NFPA 921 Guide.) TIAs are published for public review and comment and are forwarded to the TC responsible for the standard. The TC is balloted on the proposed TIA, and then the proposed TIA, any public comments received, and the TC ballot results are submitted to the Standards Council for review. If the Standards Council decides to approve the TIA, it becomes an amendment to the existing edition of the document and automatically becomes a Public Input for the next edition of the standard. TIAs can be downloaded on the Document Information Page for the relevant standard.

TIAs are different from *errata*. *Errata* make what are essentially editorial corrections to an NFPA standard. *Errata* do not go through a public comment process and therefore are very limited in scope. *Errata* will not be issued to make corrections that could affect the meaning of a standard.

After the NFPA 921, 2021 ed. was finalized, two important matters came to light that were overlooked during the revision process. First, Chapter 6 *Fire Effects and Fire Patterns* was given a complete overhaul for the 2021 edition. Through an oversight, the description of "fire patterns" in the revised Chapter 6 section 6.3.18 was inconsistent with the existing definition of "Fire Patterns" in 3.3.78. It was intended that the Chapter 3 definition be consistent with the description in the new, approved revised text in Chapter 6. FISC member Joseph Sesniak (the IAAI Representative on the NFPA 921 TC) caught this error. Accordingly, a Tentative Interim Amendment (TIA) was proposed to revise the definition in Chapter 3 of the new edition bringing it into line with the new Chapter 6.⁹ The revised definition is to read as follows, "**3.3.78 Fire Patterns**. The ~~visible or measurable~~ physical changes, or identifiable shapes, formed by a fire effect or group of fire effects."

A second matter is also included in the proposed TIA. During the revision cycle, the TC approved a global revision for the Second Draft to make identical textual changes in multiple figures (4.3.5, 4.3.6, 18.5, and 19.5) in the First Draft. Through oversight, this global revision was not made to the new figure 6.1.5, as intended. The proposed TIA would correct this error to make all five figures in NFPA 921, 2021 edition consistent for the purposes of clarity and continuity. The proposed TIA will revise the fifth and sixth steps in figure 6.1.5 *Example of Applying the Scientific Method to Fire Pattern Interpretation* to read as follows:

(Fifth step in the figure):

Develop More than One Hypothesis Hypotheses

Explanation for and significance of
~~Fire~~ fire patterns
 Inductive reasoning

(Sixth step in the figure):

Test the Hypothesis for Validity Hypotheses¹⁰

The proposed TIA describes the emergency nature of these items as follows:

Both items are presented for issuance of a TIA to address the potential for confusion or error in the analysis of fire effects of fire patterns by the reader, which could result in the development of an erroneous opinion that could have a negative effect on the outcome of a fire investigation. In addition, as this is a newly organized chapter, with updated text, such errors may serve to reduce a readers' competence in the chapter or document as a whole.¹¹

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At the time of writing this column, the proposed TIA, submitted by TC member Thomas W. Horton, Jr. and sponsored by former TC Chair Watson, has passed the initial TC ballot and is open for public comment until September 23, 2020. If it is issued by the Standards Council, it will be available for free download on the NFPA 921 [Document Information Page](#)¹² "Current and Prior Editions" tab, where the Proposed TIA is currently posted.

7. IAAI Rolls Out Trainings on NFPA 921's New Edition

Length restrictions prevent us from highlighting noteworthy changes to the 2021 edition in this FISC Bulletin Board. However, the IAAI has developed some excellent virtual and recorded trainings that recount and analyze revisions on a chapter-by-chapter basis. The accomplished instructors include some of our FISC members including IAAI President Rick Jones and Joe

Sesniak, along with NFPA 921 TC members Past Chair Randy Watson, IAAI 1st VP Bob Toth, Dan Gottuk, and other highly qualified subject matter specialists. More information about these trainings on the IAAI Website, <https://www.firearson.com>, under the "Trainings & Credentials" tab.

8. Conclusion

We hope each of our readers makes some time to review the proposed revisions to NFPA 1033 and the new edition of NFPA 921. In closing, we thank Randy Watson and George Wendt once again for their years of hard work for the NFPA, while congratulating Jim Shanley, Dan Heenan, and Ken Holland on their new appointments! Finally, FISC invites suggestions, questions, or comments from you, our readers. We welcome you to contact FISC Chair Terry-Dawn Hewitt at TDHewitt@McKennaHewitt.com, who will forward your communications to our FISC membership.

9. Acknowledgments

We would like to thank everyone who contributed to or conducted a pre-publication review of this column including IAAI 2nd Vice President Charles "Randy" Watson, IAAI-CFI®, IAAI-CI, CFEI, CVFI, CFII, F-IAFI, James H. Shanley, Jr. PE, CFEI, and Daniel P. Heenan, IAAI-CFI®, MCSFS, IAAI-CI; and thanks to the following Fire Investigation Standards Committee (FISC) members: Captain Steven J. Avato, IAAI-CFI®, Michael Forbes, AFSM, IAAI-CFI®, CFEI, GIFireE, IAAI President Rick Jones, IAAI-CFI®(V), MIAAI, Peter Mansi, GIFireE, MCSFS, IAAI-CFI®, Major J. Ron McCardle, Wayne J. McKenna, BA (Spec.), LL.B., Esq., Joe Toscano, IAAI-CFI®, IAAI-CI, George Wendt, IAAI-CFI®, Jeff Williams, IAAI-FIT, IAAI-CI, IAAI-CFI®; and finally to Joe Sesniak, IAAI-CFI®, IAAI-CI, CFEI, GIFireE (for preparing a catalog of major changes to NFPA 921, 2021 edition as well as reviewing this column).

We also take this opportunity to thank Ross Brogan, AFSM, MA (Fire Investigation), CFI, IAAI Lecturer, and Subject Co-Ordinator Fire Investigation Subjects at Charles Sturt University (NSW Australia) for his many years of dedication to FISC. Mr. Brogan retired earlier this year from his position at the Charles Sturt University and from his other involvements with the fire investigation community. He was a valuable FISC member, sharing with the IAAI membership interesting international perspectives from Australia and New Zealand. We will miss you Ross! In his stead, we welcome as our newest FISC member, Michael Forbes, AFSM, IAAI-CFI®, CFEI, GIFireE, President of the New South Wales (Australia) Association of Fire Investigators. Through Michael, we look forward to having a continued voice from Australia to share with the IAAI membership. Welcome, Michael!

Endnotes

1 See NFPA 921 Document Information Page available at [https://www.nfpa.org/codes-and-standards/all-codes-and-standards/detail?code=921](https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=921) and the NFPA 1033 Document Information Page available at <https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1033>. If these links do not work, go to the NFPA Home Page at <https://www.nfpa.org>, next click the "Codes and Standards" link, click "List of NFPA codes & standards" link, and then enter either "921" or "1033" in the search field to access the Document Information Page for each document. Once you are on the Document Information Page for either document, scroll down and click the tabs to explore "Current and Prior

Editions," "Next Edition," "Technical Committee," and other helpful information.

2 See link to NFPA 1033 Document Information Page, *supra* note 1.

3 See link to NFPA 1033 Document Information Page, *supra* note 1.

4 See link to NFPA 1033 Document Information Page, *supra* note 1.

5 Nat'l Fire Prot. Ass'n Technical Comm. on Fire Investigator Professional Qualifications, *First Draft Report*, First Revision No. 3, NFPA 1033-2019 (Chapter 1), *deleting ss. 1.3.7, A.1.3.7, 1.3.8, & A.1.3.8*, Committee Statement.

6 Nat'l Fire Prot. Ass'n Technical Comm. on Fire Investigator Professional Qualifications, *First Draft Report*, First Revision No. 1, NFPA 1033-2019

(Chapter 4), [New Section after 4.1.6] Committee Statement.

7 See link to NFPA 921 Document Information Page, *supra* note 1.

8 NAT'L FIRE PROT. ASS'N TECHNICAL COMM. ON FIRE INVESTIGATIONS, NFPA 921 GUIDE FOR FIRE AND EXPLOSION INVESTIGATIONS [hereinafter NFPA 921] (2021 ed.) front matter.

9 NFPA 921 (2021 ed.), TIA Log. No. 1528 submitted by Thomas W. Horton, Jr., ref. 3.3.78 and Figure 6.1.5.

10 *Id.*

11 *Id.*

12 See link to NFPA 921 Document Information Page, *supra* note 1.