Expert Challenges and the Revised NFPA 1033

I. Introduction
In the world of fire investigations, most professionals turn to the National Fire Protection Association ("NFPA") as the premier organization for establishing guidelines and standards for investigating a fire loss. The best known fire investigation standard developed by that organization is NFPA 921, Guide for Fire and Explosion Investigations, which sets forth standards for the proper methodology of fire investigation. The 2014 Edition of NFPA 921 is now up to 402 pages long.

Less lengthy is NFPA 1033. It is also less cited in the case law and may be lesser known. That soon may change. NFPA 1033 establishes standards for the most fundamental hurdle of a fire investigator: basic and mandatory expertise in fire investigations. Failure to thoroughly understand and follow NFPA 1033 and its recent changes from 2014 can lead a fire investigator, and the case, vulnerable to attack before ever touching the issue of whether the investigator followed the methodology of NFPA 921.

II. Some History on Expert Challenges

A. Daubert
Attorneys, experts, and insurance industry professionals who handle fire losses are well aware of the looming challenges of Daubert, that fateful decision of 1993 holding that the court will serve as the gatekeeper of all expert challenges before the case ever sees a jury. Daubert v. Merrell Dow Pharmaceuticals, Inc., 509 U.S. 579 (1993). Although the case was initially intended to expand the admissibility of expert testimony, the case law that followed effectively narrowed such testimony's admission. The reason was Daubert's discussion of methodology.

B. Methodology vs. Qualifications
Before Daubert, expert screening meant looking at an expert's qualifications and whether the methodology used was generally accepted in the field, the Frye test, from U.S. v. Frye, 293 F. 1013 (D.C. Cir. 1923). Daubert did not change the qualifications requirement, but it did change the methodology prong. Methodology under Daubert required a review of four factors -- testing, peer-review/publication, use of controlled standards and/or low error rate, and general acceptance in the field. Those factors became the new focus and often the main focus in meeting and challenging admissibility of expert testimony.

Most cases striking an expert focused on the methodology prong. Challenges on qualifications remained, but look somewhat of a back seat. Because of NFPA 921's prominence in the field of fire investigations, much of the focus in developing or attacking a fire investigator's expert testimony has been on the expert's use of NFPA 921. Until recently, attacks based on NFPA 1033, which goes to the fire investigator's qualifications to investigate a fire, were not as heated. The trend, however, has been to mine NFPA 1033 for all it is worth when seeking to attack an opposing expert. Before discussing this trend, and how to address it, a brief history of NFPA 921 and 1033 is appropriate.

C. The Birth of NFPA 921 and NFPA 1033

a. NFPA 921

b. NFPA 1033
In 1977, the NFPA issued a document called "Professional Qualifications for Fire Inspector, Fire Investigator, and Fire Prevention Education Officer," under the number NFPA 1031. In 1987, the document was revamped, renumbered, and retitled to NFPA 1033, Standard for Professional Qualifications for Fire Investigator. Its purpose has been and remains to "develop clear and concise job performance requirements that can be used to determine that an individual, when measured to the standard, possesses the skills and knowledge to perform as a fire investigator" in both the private and public sectors.

D. Recent Revisions to NFPA 921 and 1033
Fairly recently, the NFPA revised both NFPA 921 and NFPA 1033, issuing the 2014 Edition of each guideline. It was the first year both standards were revised at the same time, the purpose being to further harmonize the two.
a. Significant NFPA 1033 Changes

i. Revised Educational Level

The 2009 version of NFPA 1033 stated that the fire investigator was to have knowledge of certain issues "beyond the high school level at a post-secondary education level." There were 13 such issues listed, including (1) fire science, (2) fire chemistry, (3) thermodynamics, (4) thermometry, (5) fire dynamics, (6) explosion dynamics, (7) computer fire modeling, (8) fire investigations, (9) fire analysis, (10) investigations methodology, (11) fire investigations technology, (12) hazardous material, and (13) failure analysis and analytical tools.

The phrase "post-secondary education level" left confusion and concern among well-respected fire investigators, many of whom had devoted their careers to fighting fires and taking and teaching numerous seminars on fire investigation, but had taken little to no college courses. Did this standard instantly render unqualified those fire investigators who had been unable to afford college degrees?

To address this concern, the 2014 Edition changed the "post-secondary education level" language in two places. Chapter 1 of the 2014 Edition now treats post high school education more broadly - using the phrase "beyond the high school level" - but it also imposes three more topics of knowledge about which the investigator must be familiar, stating:

1.3.7* The investigator shall have and maintain at a minimum an up-to-date basic knowledge of the following topics beyond the high school level:

(1) Fire science
(2) Fire chemistry
(3) Thermodynamics
(4) Thermometry
(5) Fire dynamics
(6) Explosion dynamics
(7) Computer fire modeling
(8) Fire investigation
(9) Fire analysis
(10) Fire investigation methodology
(11) Fire investigation technology
(12) Hazardous materials
(13) Failure analysis and analytical tools
(14) Fire protection systems
(15) Evidence documentation, collection, and preservation
(16) Electricity and electrical systems

(1.3.8*) The fire investigator shall remain current in the topics listed in 1.3.7 by attending formal education courses, workshops, and seminars and/or through professional publications and journals.

(minimum, the fire investigator is expected to maintain up-to-date basic knowledge of topics already projected in the document, as well as knowledge of fire protection systems; evidence documentation, collection, and preservation; and electricity and electric systems.

(emphasis added).

ii. New Definitions

Neither the 2009 nor the 2014 version of NFPA 1033 go on to define all of the terms listed in section 1.3.7. However, the 2014 Edition does refine some and also adds some, as does NFPA 921. New definitions appear for the terms "fire dynamics," "fire investigations technology," and "fire science." Newly added definitions appear for the terms "fire analysis," "fire dynamics," "fire investigation technology," and "fire science." The definitions of all 16 topics are discussed further below in this article.

iii. Scientific Method

Annex A of the 2014 version of NFPA 1033 has revised the explanation of the scientific method to match the explanation set forth in NFPA 921, Basic Methodology. The changes in NFPA 921 should be reviewed. In particular, NFPA 921, section 3.3.149, has new terms, highlighted in italics, as follows:

3.3.149 Scientific Method. The systematic pursuit of knowledge involving the recognition and definition of a problem; the collection of data through observation and experimentation; analysis of the data, the formulation, evaluation and testing of a hypothesis; and, when possible, the selection of a final hypothesis.

Similar changes appear in the term and concept of "Confirmation Bias" in NFPA 921, Chapter 4, Basic Methodology, "Test the Hypothesis (Deductive Reasoning)," with corresponding changes to the annex. The prior 2011 Edition had sections on expectation bias and confirmation bias in sections 4.1, 4.3.8, 4.3.9, and 4.6.2.1. The new section on Confirmation Bias, at 4.3.9, has the revisions in highlights, below:

4.3.9 Confirmation Bias. Different hypotheses may be compatible with the same data. When using the scientific method, testing of hypotheses should be designed to disprove the hypothesis (falsification of the hypothesis). Confirmation bias occurs when the investigator instead tries to prove the hypothesis. This can result in failure to consider alternate hypotheses, or prematurely discounting seemingly contradictory data without an appropriate assessment. A hypothesis can be said to be valid only when rigorous testing has failed to disprove the hypothesis.

The revised NFPA 921 and NFPA 1033 now emphasize that an investigator's analysis should seek to disprove hypotheses, rather than seeking to affirmatively prove a particular hypothesis. That theme is also found in significant changes in Chapter 19, Fire Cause Determination.

iv. Scene Investigation: Duties Where Scene Not Available

Section 4.2 of NFPA 1033 now states that where the scene is no longer available, the investigator has a clear duty to conduct a comprehensive document review:

... continued on page 32.
4.2* Scene Examination. Duties shall include inspecting and evaluating the fire scene, or evidence of the scene, and/or conducting a comprehensive review of documentation generated during the examination(s) of the scene if the scene is no longer available, so as to determine the area or point of origin, source of ignition, materials ignited, and act or activity that brought the ignition source and materials together and to assess the subsequent progression, extinguishment, and containment of the fire.

v. Fire Patterns Interpretation

Under sub-section 4.2.4 of NFPA 1033, the fire investigator's duty has increased to fire pattern interpretation, requiring that "each individual pattern is evaluated with respect to the burning characteristics of the material involved; observed and the mechanisms of heat transfer that leads to the formation of the pattern."

vi. Evidence Collection

The investigator duties have also expanded under section 4.4 and 4.4.2, with respect to collecting relevant evidence, now addressing documentation, collection, and preservation of the evidence, as follows:

4.4 Evidence Collection/Preservation. Duties shall include using proper physical and legal procedures to identify, document, collect, and preserve evidence required within the investigation.

4.4.2* Locate, document, collect, label, package, and store evidence, given standard or special tools and equipment and evidence collection materials, so that it is properly identified, preserved, collected, packaged, and stored for use in testing, legal, or other proceedings and examinations, ensuring cross-contamination and investigator-inflicted damage to evidentiary items is avoided and the chain of custody is established.

III. How to Use NFPA 1033 in Litigation

A. Court Guidance

NFPA 1033 is not often cited in published decisions. When cited, it usually appears in conjunction with NFPA 921. The few decisions addressing it, however, are instructive. For example, in McCoy v. Whirlpool Corp., 214 F.R.D. 646 (D. Kan. 2003), the plaintiffs sought to use NFPA 1033 as a basis to exclude the opinions of a proposed defense expert. The plaintiffs' reasoning was that the defense expert's written report and resume did not cite NFPA 1033 as a standard he followed. The plaintiffs argued that NFPA 1033 was such a basic standard that its omission from the expert's report and resume established the purported expert's lack of expertise in the field of fire investigations. However, the plaintiffs did not cite any particular aspect of NFPA 1033 that the expert failed to understand or follow. In rejecting the plaintiffs' argument, the court held that mere failure to cite a nationally recognized standard or accreditation will not disqualify a witness who is otherwise qualified. The court did, however, opine that a proposed expert's failure to meet the substantive requirements of NFPA 1033 standards are fair game. While the court did not go so far as to use its discretion to exclude the expert for failure to cite NFPA 1033, the court held that the plaintiffs' attorney would be free to address the expert's adherence to NFPA 1033 before a jury. This ruling thus establishes that failure to follow NFPA 1033 is a legitimate attack on an expert, but it is within the court's discretion to allow the expert's testimony to go forward. Had the plaintiffs' established particular aspects of NFPA 1033 that the expert failed to understand or follow, it is anyone's guess whether the court would have used its discretion to go further.

In Thompson v. Whirlpool Corp., 2008 U.S. Dist. LEXIS 38968 (W.D. Wash. May 13, 2008), a defendant sought to exclude a plaintiff's expert, an electrical engineer who had opined that a fire originated in refrigerator, specifically in the freezer compartment's evaporator coil from a failed high resistance electrical connection. Defendant argued the expert was not qualified to have rendered the opinion for lack of refrigerator design experience and that his methods were unscientific and unreliable. The court denied the defense motion. In addressing the qualifications issue, the court noted:

Barovsky is a registered electrical engineer in the State of Washington and has been a member of the National Fire Protection Association ("NFPA") since 2000. He is qualified as a fire investigator under the NFPA Standard 1033 Professional Qualifications and he has investigated the origin and cause of over 250 fires in Washington over the past five years. In total, he has six years of experience investigating and determining the origin and cause of accidental fires. He has been qualified as an expert concerning the origin and cause of fires in numerous Washington State courts and the federal district in which this Court sits.

(citations to the record omitted). This decision can be seen as a corollary to McCoy v. Whirlpool Corp by demonstrating the value of affirmatively establishing qualification under NFPA 1033.

In Young v. Allstate Ins. Co., 2010 U.S. Dist. LEXIS 14514 (E.D. Mo. Feb. 19, 2010), the plaintiffs were homeowners suing their insurer over the existence and value of certain items that were in a home at the time of a fire. The plaintiffs offered testimony of two experts, one of which was a certified fire and explosion investigator (CFEI) whose opinions were limited to whether those purported items were indeed in the garage at the time of the fire. Defendant sought to exclude the CFEI on ground that his opinion cited "no treatises, no authorities, and no empirical or scientific method to support his scientific opinion" and that his "opinion adds nothing in the way or specialized or technical knowledge that would assist the jurors." In rejecting the defense motion, the court found that the CFEI followed the proper methodology and was "qualified as an expert given his fifteen years of experience and numerous training classes," citing in particular the following training:

Arc Mapping Basics, Fire and Explosion Investigations: Utilizing NFPA 1033 and 921, Post-Flashover Fires, Understand Fires Through the Candle Experiments, Fire Investigation Seminar Missouri Chapter 1AA1, Determining Responsibility in an Arson Case, Vacant and Abandoned Buildings;
increase their chances of surviving an NFPA case above, an expert's good record keeping of such courses they have attended and those materials they have read or authored. As demonstrated in the introductory remarks and section 1.3.8 in this regard. The reality is that many fire investigators did not do so with an eye toward an opposing attorney one day cross-examining them on their adherence to NFPA 1033. Fire investigators who wish to increase their chances of surviving an NFPA 1033 attack are well advised to rigorously document the times and topics of those courses they have attended and those materials they have read or authored. As demonstrated in the Young v. Allstate Ins. Co. case above, an expert's good record keeping of such courses and materials can go a long way.

b. Testing the Expert's Record of Courses and Articles

Recall that the 2014 Edition of NFPA 1033 has two sections, nearly identical, requiring that the fire investigator be familiar with certain topics and "have and maintain at a minimum an up-to-date basic knowledge [of those topics] beyond the high school level." There is some degree of internal inconsistency between the introductory remarks and section 1.3.8 in this regard. The former calls for the fire investigator to attend "formal education courses, workshops, and seminars, and through professional publications and journals," whereas the actual section, 1.3.8, replaces the highlighted "and" with "and/or": "by attending formal education courses, workshops, and seminars and/or through professional publications and journals." Under the latter language, the fire investigator, arguably, may remain current by reading. In both cases, the fire investigator may qualify by means other than attending courses offered by colleges or universities, but record keeping is key.

While many fire investigators will have undergone innumerable real-life experiences, read dozens of training materials, and attended many classes offered here and there, the practical reality is that many fire investigators did not do so with an eye toward an opposing attorney one day cross-examining them on their adherence to NFPA 1033. Fire investigators who wish to increase their chances of surviving an NFPA 1033 attack are well advised to rigorously document the times and topics of those courses they have attended and those materials they have read or authored. As demonstrated in the Young v. Allstate Ins. Co. case above, an expert's good record keeping of such courses and materials can go a long way.

(c) Testing the Expert's Knowledge of the 16 Topics of NFPA 1033

Although NFPA 1033 now has 16 topics in section 1.3.7, even the 2014 version does not actually define all 16 topics. If in deposition an opposing attorney should ask a fire investigator for a definition of each topic, or his or her level of knowledge or expertise in each topic, what is the investigator to do? The problem is demonstrated from a real-life exchange in a deposition of an expert:

Q Are you familiar with the requirement of NFPA 1033, Section 1.3.7 related to the areas of knowledge where fire investigator is to maintain up-to-date information and knowledge on various subject matters? A I couldn't say specifically that that's where it is but I'm sure it's in there and that makes sense.
Q Yes. I mean you would agree if the standard requires an investigator that says shall and you should do it. It's required under that standard.
A Yes. I don't think you can be a fire investigator without meeting those qualifications.

Q Have you taken any courses or post-secondary education courses in fire dynamics?
A No, sir.
Q What is fire dynamics?
A I'm not sure about what the definition is.

Q What's your definition of fire science?
A My definition of fire science is everything involved in a fire as far as the sequence of ignition up through smoldering, to flame and combustion.

Q What is your definition of fire chemistry?
A I guess my definition of fire chemistry would be -- I guess the amount of oxygen, heat and fuel is the three things that you need to have a fire and then the catalyst or the -- what puts them together.

Q Have you taken any courses that would qualify you on a post-secondary level in the field of thermal dynamics?
A No, sir.
Q What is thermal dynamics?
A Just thinking about thermal part of it would be heating.
Q Do you know what the scientific definition of that term is?
A No, sir, I do not.
Q What about thermometry, what is that?
A I'm not familiar with that term, other than the fact what a normal thermometer does, measures temperature.

Q You consider yourself an expert in fire safety engineering?
A No, sir.
Q Fire dynamics?
A No, sir.
Q Fire chemistry?
A No, sir.
Q Thermal dynamics?
A No, sir.
Q Computer fire modeling?
A No, sir.
Q Explosion dynamics?
A No, sir.

An example of how a fire investigator can better answer some of these types of questions is as follows:
Q Are you familiar with the requirement of NFPA 1033, Section 1.3.7 related to the areas of knowledge where fire investigator is to maintain up-to-date information and knowledge on various subject matters?
A I am familiar with the 2014 Edition of NFPA 1033, yes. I have it here with me.
Q Have you taken any post-secondary education courses in fire dynamics?
A I have taken courses beyond the high school level, which is the standard under that edition of NFPA 1033, yes, sir.
Q Can you list those course?
A They are in my CV, which I have provided and I can go through them with you if you like, yes.
Q Do you consider yourself an expert in fire safety engineering?
A If you’re asking me that question in the context of NFPA 1033, I don’t think NFPA 1033 lists that as one of the 16 topics. Can you provide me some context to your question as it relates to this particular case?
Q Well, let me ask you this. Fire dynamics is one of those terms. Do you consider yourself an expert in fire dynamics?
A I consider myself an expert in the field of fire investigations, qualified under NFPA 1033. That standard does address that topic and I am familiar with that topic beyond a high school education, yes.
Q But do you consider yourself an expert in that particular topic?
A I consider myself qualified to discuss that topic as part of my expertise as a fire investigator and I am prepared to do that as it relates to this particular case.

If asked to define all 16 terms in NFPA 1033, many of the terms will be found in NFPA 1033 and the expert should be ready to refer to those definitions. But what if the expert is asked to do so for those terms not defined in NFPA 1033? Most of the other terms are defined NFPA 921. Those found in neither NFPA 1033 nor NFPA 921 can be found in the Merriam-Webster’s Collegiate Dictionary, 11th edition, which NFPA 1033, section 3.1, cites as the source to turn to when a term is not found in an NFPA document. (“Where terms are not defined in this chapter or within another chapter, they shall be defined using their ordinarily accepted meanings within the context in which they are used. Merriam-Webster’s Collegiate Dictionary, 11th edition, shall be the source for the ordinarily accepted meaning.”).

d. Definitions of the 16 Topics

To guide the fire investigator in advance of an upcoming deposition (or the attorney seeking to attack an opposing expert), the following is a list of definitions for each of the 16 topics as found in those three sources:

1) Fire science: NFPA 1033, section 3.3.8 (2014): “The body of knowledge concerning the study of fire and related subjects (such as combustion, flames, products of combustion, heat release, heat transfer, fire and explosion chemistry, fire and explosion dynamics, thermodynamics, kinetics, fluid mechanics, fire safety) and their interaction with people, structures, and the environment.”

2) Fire chemistry: NFPA 921, section 5.2.1 and 5.2.2 (2014): “Fire chemistry is the study of chemical processes that occur in fires, including changes of state, decomposition, and combustion.”

3) Thermodynamics: Merriam-Webster Dictionary: “Physics involving the relations of heat with mechanical forms of energy”

4) Thermometry: Merriam-Webster Dictionary: “[T]he measurement of temperature”

5) Fire dynamics: NFPA 1033, section 3.3.4: “The detailed study of how chemistry, fire science, and the engineering disciplines of fluid mechanics and heat transfer interact to influence fire behavior.”

6) Explosion dynamics: Although there is no set definition in any of the three sources, the phrase “explosion dynamics” appears several times in Chapter 23 of NFPA 921, Chapter 23, Explosions (2014), including the following:

23.15 Analyze Origin (Epicenter).  After identifying the force vectors, the investigator should trace backward from the least to the most damaged areas, following the general path of the explosion force vectors.  This process is known as an explosion dynamics analysis.

23.15.1 The analysis of the explosion dynamics is based on the debris movement away from the epicenter of the explosion in a roughly spherical pattern and on the decreasing force of the explosion as the distance from the epicenter increases.

7) Computer fire modeling: This terms also has no set definition in any of the three sources. However, the phrases “fire modeling” and “mathematical modeling” appear in Chapters 8 and 22 of NFPA 921 (2014). Section 8.3.4.3.5, for example, states:

Fire Modeling. A variety of computer models are available that may be used to calculate the activation time of a suppression system and in some cases its potential impact on fire development. Regardless of which model is used, engineering guidelines for substantiating a fire model for a given application should be employed.

See also NFPA 921, section 8.4.4.2.11 (2014). NFPA 921, section 22.4, states:

22.4 Mathematical Modeling.

22.4.1 General. Mathematical modeling techniques provide the investigator with tools for testing hypotheses regarding the origin and cause of the fire/explosion and the cause of the resulting damage to property or injury to people. Even when the origin and cause are not issues, it is often possible and important to establish the cause of the resulting damage to property or injury to people.

8) Fire investigation: NFPA 1033, section 3.3.5: “The process of determining the origin, cause, and development of a fire or explosion.”

9) Fire analysis: NFPA 1033, section 3.3.2: “The process of determining the origin, cause, development, responsibility, and, when required, failure analysis of a fire or explosion.”

10) Fire investigation methodology: Although there is no set definition in any of the three sources, NFPA 1033, Annex A, states:

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A.4.1.2 The basic methodology for fire investigation involves collecting data, then developing and testing hypotheses (see the methodology chapter of NFPA 921). The methodology recommended is the scientific method. Key steps in the scientific method are as follows:

1. Recognizing the need
2. Defining the problem
3. Collecting data
4. Analyzing the data
5. Developing the hypothesis
6. Testing the hypothesis
7. Selecting final hypothesis

Developing hypotheses is an ongoing process of data collection and evaluation that happens throughout the investigation. Hypotheses are generally developed and tested for evaluating fire spread and growth, evaluating the nature of fire patterns, and determining origin, cause, and responsibility. Testing of hypotheses can be either experimental or cognitive. Ultimately, the hypotheses and conclusions reached are only as dependable as the data used or available. Each investigator must apply a level of confidence in that opinion. For additional information regarding evaluation methods see ASTM E 678, Standard Practice for Evaluation of Scientific or Technical Data.

11) Fire investigation technology: NFPA 1033, section 3.3.6: “Applied technology subjects related to and used in fire investigation including, but not limited to, specialized knowledge and skills in documentation of the investigation, scene and evidence processing, and failure analysis and analytical tools.”

12) Hazardous materials: This term also is not defined in any of the three sources, but the phrase is used several times in NFPA 921, Chapter 13, Safety. See also NFPA 400, Hazardous Materials Code; NFPA 471: Recommended Practice for Responding to Hazardous Materials Incidents; and NFPA 472, Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents.

13) Failure analysis and analytical tools: This lengthy term is not given a quick definition, but is the title of NFPA 921, Chapter 22, Failure Analysis and Analytical Tools (2014).

14) Fire protection systems: This term is also not quickly defined, but is the subject of a new chapter in the 2014 Edition of NFPA 921, Chapter 8, Fire Protection Systems. As stated in NFPA 921 itself, this addition is “based on a mandate in NFPA 1033, Standard for Professional Qualifications for Fire Investigator, which includes fire protection systems as one of the 16 knowledge topics that every fire investigator is required to have a basic, up-to-date knowledge of.” See introductory statement to NFPA 921 (2014).

15) Evidence documentation, collection, and preservation: This lengthy phrase is also not defined, but the concept is the subject of NFPA 921, Chapter 16 (Documentation) and Chapter 17 (Physical Evidence). It is helpful to be familiar with ASTM standards on this topic as well, such as ASTM E660 - 07(2013) (“Standard Practice for Examining And Preparing Items That Are Or May Become Involved In Criminal or Civil Litigation”), ASTM E1188 - 11 (“Standard Practice for Collection and Preservation of Information and Physical Items by a Technical Investigator”), and ASTM E1492 - 11 (“Standard Practice for Receiving, Documenting, Storing, and Retrieving Evidence in a Forensic Science Laboratory”).

16) Electricity and electrical systems: These terms are addressed at length in Chapter 9, Electricity and Fire, NFPA 921 (2014).

E. Emphasis on Citing ASTM and other Standards

The 2014 Editions of NFPA 921 and 1033 cite often to ASTM standards. So, too, should the expert when issuing a written report on topics covered by ASTM standards. Such standards are promulgated by an organization called ASTM International, formerly known as the American Society for Testing and Materials. The 2014 Editions of NFPA 921 and 1033 refer to ASTM standards repeatedly. Such citations are considered to be incorporated into 921 and 1033 by virtue of the incorporation clause in 921, section 2.1, and 1033, section 2.1. Examples of citations to ASTM, just in 1033, include the following:

ASTM E 620, Standard Practice for Reporting Opinions of Scientific or Technical Experts
ASTM E 860, Standard Practice for Examining and Preparing Items that Are or May Become Involved in Criminal or Civil Litigation.

Dozens more such standards are found in NFPA 921. This author recommends obtaining copies of and reviewing at least the above ASTM standards and citing them in any report if relevant. It may also be good practice to cite additional ASTM standards or other industry standards relevant to the issues in the case when preparing a written report. Litigators and courts appear to be seizing increasingly on the argument that failure to cite such standards, when directly applicable to the issue at hand, is a sin of omission that should call into question the qualifications and methodology of the proposed expert.

Conclusion

Just as NFPA 921 has served as the gold standard for establishing proper methodology in fire investigations, so is NFPA 1033 a key source to support, or attack, a witness’s qualifications. Attorneys are now using NFPA 1033 more often in the never-ending effort to discredit an opposing party’s experts. It is wise to proactively address this line of attack by assuring that you or your expert are sufficiently familiar with the standard and its topics. NFPA 1033 is not a lengthy document. It can be reviewed in a matter of hours. Those hours are much better spent on the front end of a case investigation, report, or deposition. Failure to do so can result in hundreds of hours lost.

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