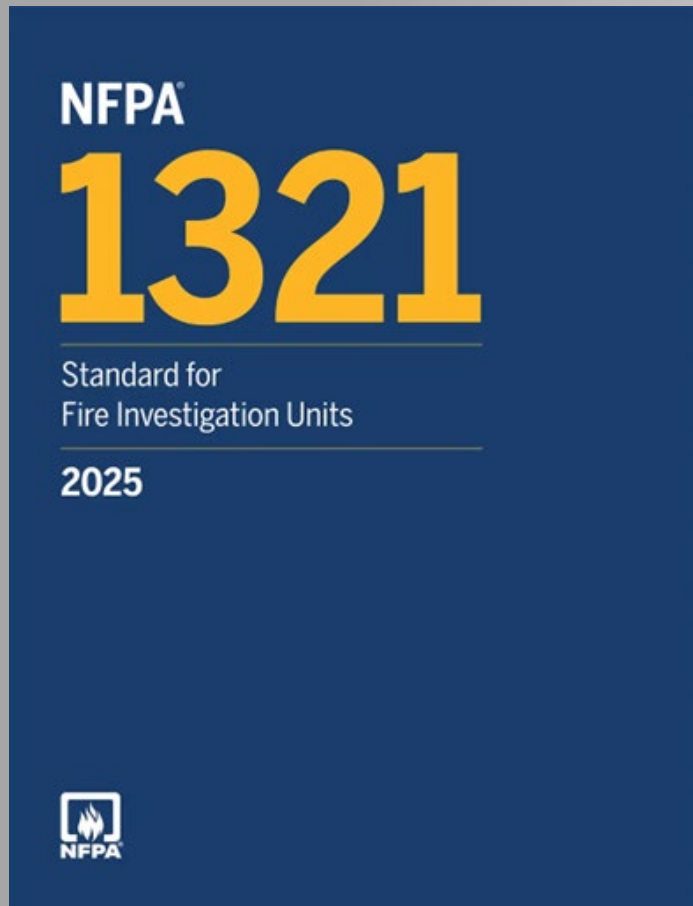




NFPA 1321 Fire Investigation Units

*Separating Facts
from Fiction!*

Randy Watson,

IAAI-CFI®, IAAI-CI®, CFEI, CVFI, CFII

IAAI Past President

Technical Committee Chair – NFPA 1321 Committee

**THE VIEWS EXPRESSED DURING THIS
PRESENTATION ARE SOLELY THOSE OF THE
PRESENTER AND DO NOT REPRESENT THE VIEWS
OF NFPA OR THE 1033, 921 or the 1321
COMMITTEES.**

There are various countries represented on this call. I am unfamiliar with the laws and regulations that may govern your operations. Please consult your various jurisdictions concerning how the material presented may apply in your specific jurisdiction.

Today's Goal

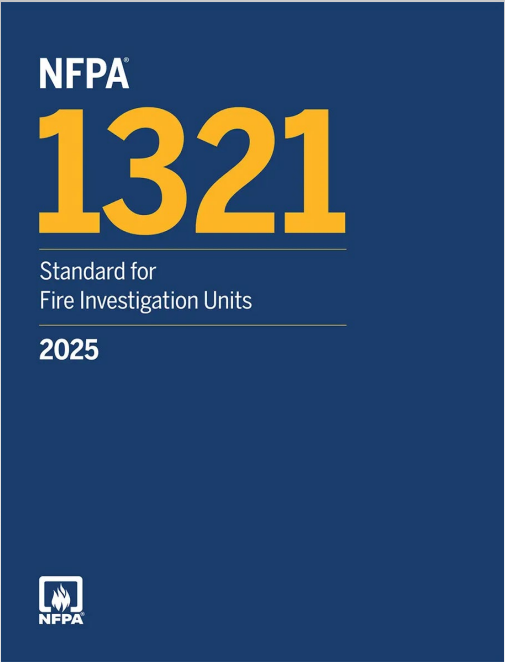
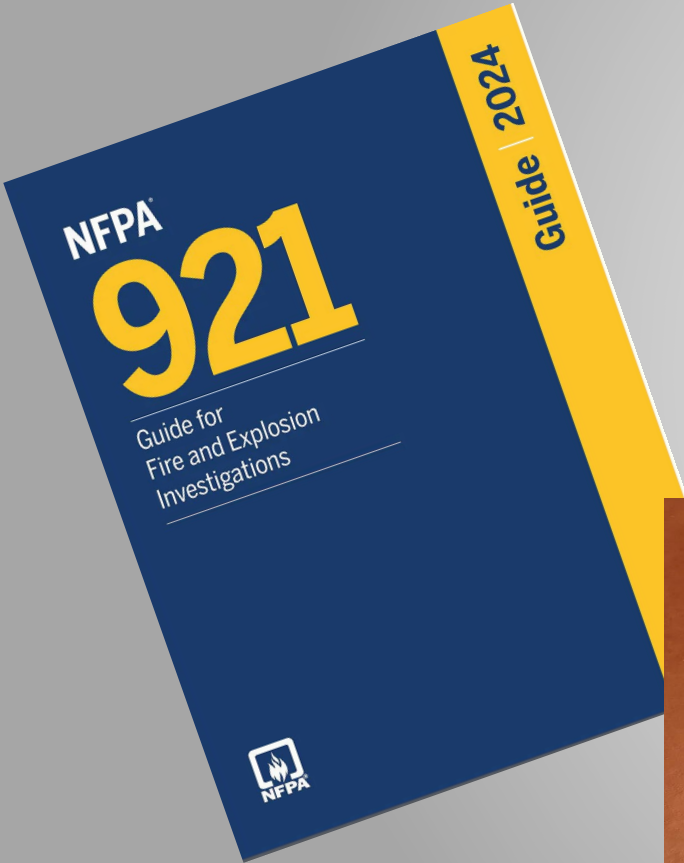


GENTLEMEN, WE ARE GOING TO RELENTLESSLY CHASE PERFECTION, KNOWING FULL WELL WE WILL NOT CATCH IT, BECAUSE NOTHING IS PERFECT. BUT WE ARE GOING TO RELENTLESSLY CHASE IT, BECAUSE IN THE PROCESS WE WILL CATCH EXCELLENCE. I AM NOT REMOTELY INTERESTED IN JUST BEING GOOD.

- VINCE LOMBARDI -

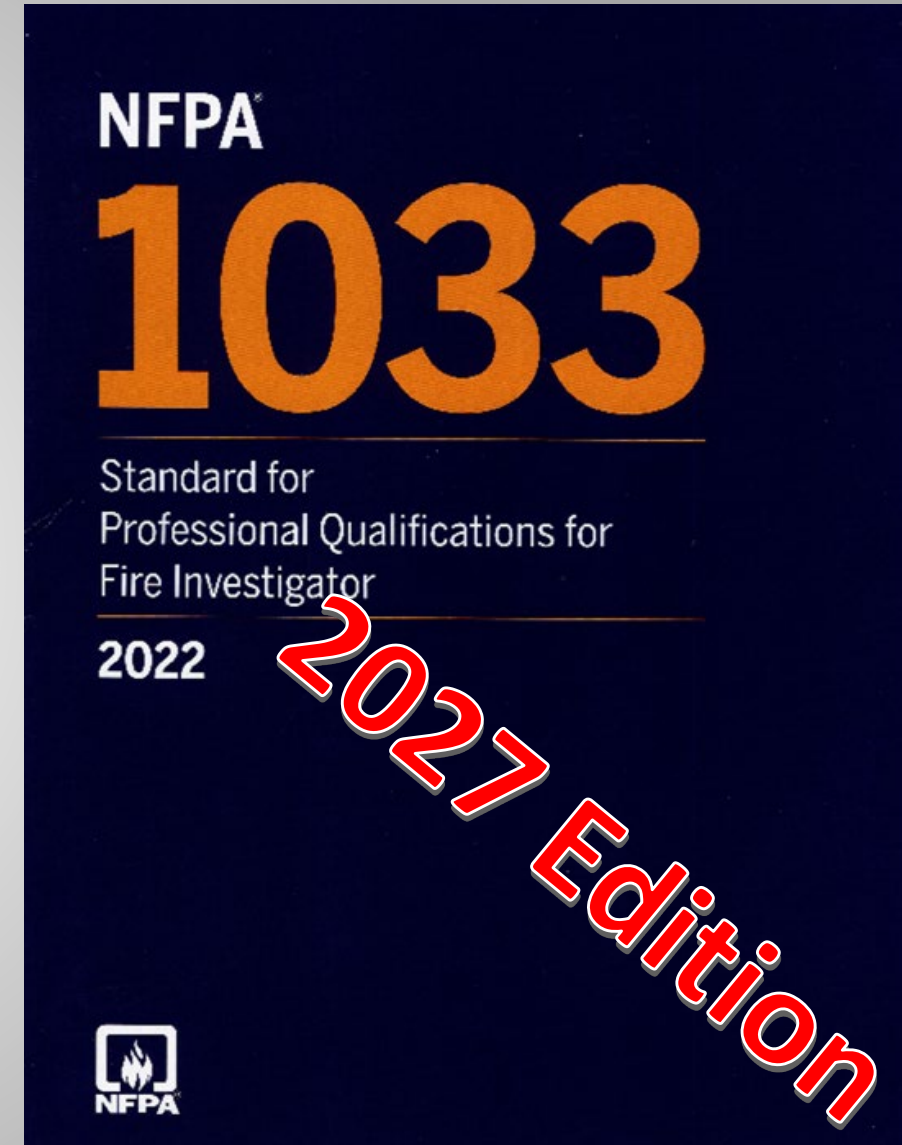
LIBQ

■ NFPA and Fire Investigation



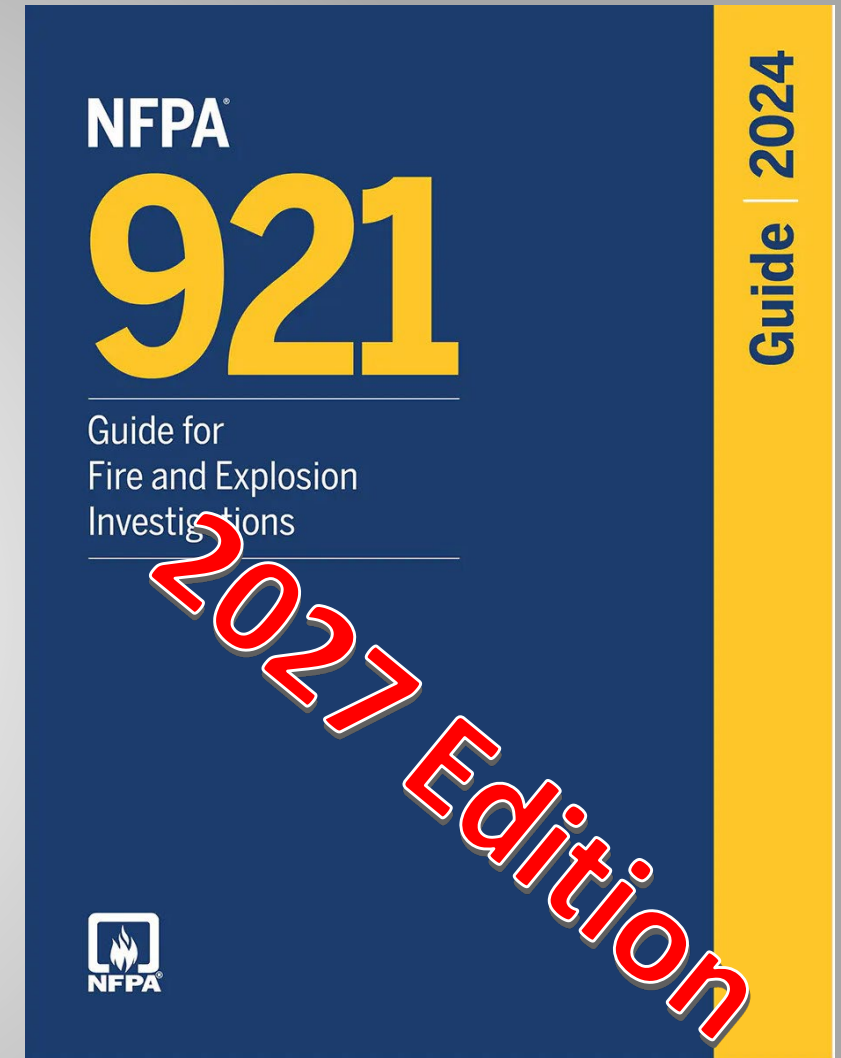
NFPA 1033 2027 Timeline:

- Public Input closed Sept. 6, 2024
 - PI Meeting held Jan 2025
- First Draft Published May 26, 2025
- Comments Closing Date July 28, 2025
- Second Draft Published March 3, 2026
- NITMAM Closing Date March 31, 2026
- Likely published fall 2026



NFPA 921 2027 Timeline:

- Public Input closed Jan. 7, 2025
 - PI meeting March 2025
- First Draft Published Oct. 28, 2025
- Comments Closing Date Jan. 6, 2026
- Second Draft Published Oct. 6, 2026
- NITMAM Closing Date Nov. 3, 2026
- Likely published early 2027



NFPA[®]

1321

Standard for
Fire Investigation Units

2025



The main goals concerning NFPA 1321:

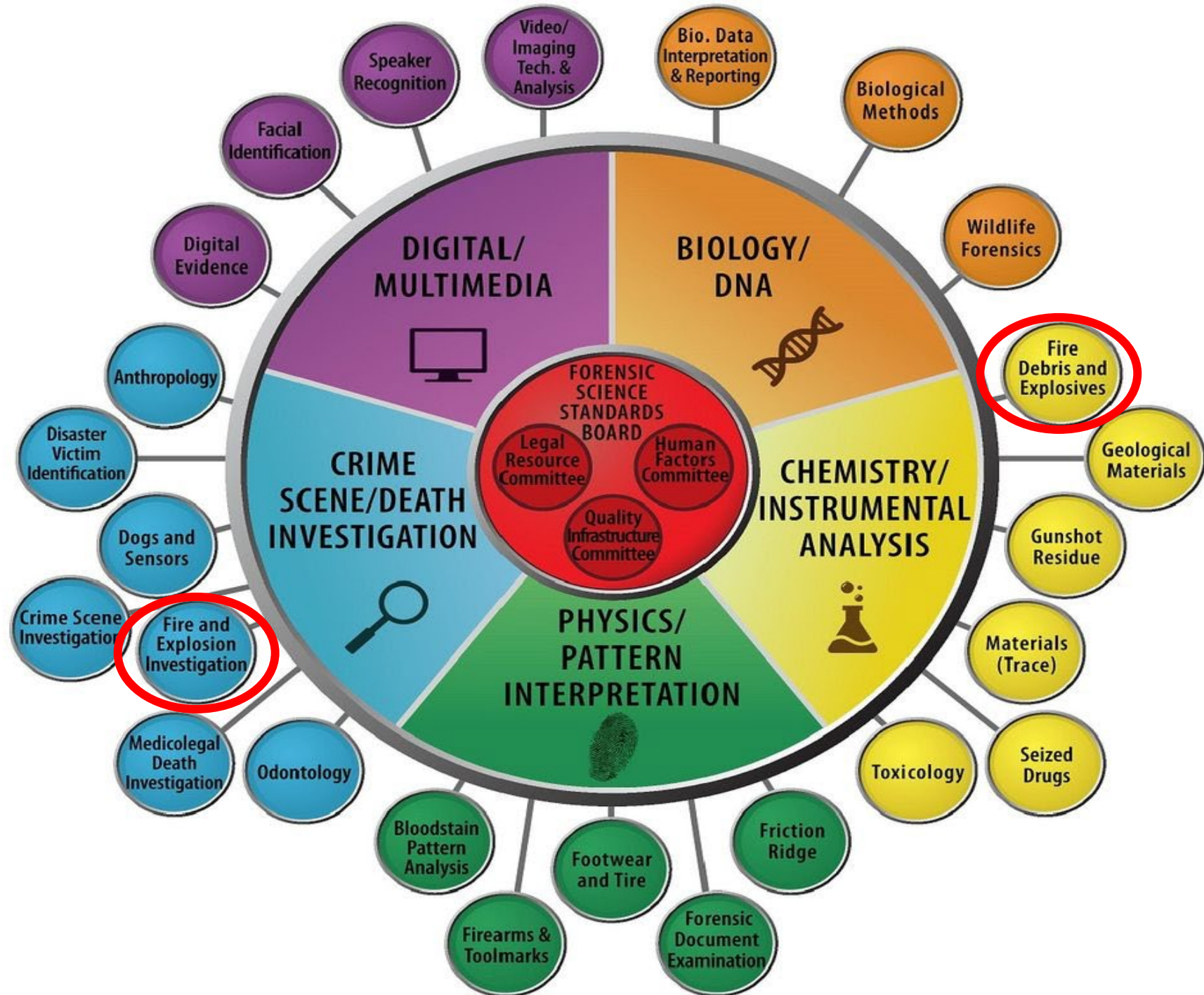
- Understand what NFPA 1321 actually says, as opposed to what people think it says.
- Look for ways you can use NFPA 1321 to make your fire investigation unit excel.

NFPA 1321 Fire Investigation Units

- The National Fire Protection Association (NFPA) Standards Council is in receipt of a New Project Initiation Request for the development of an ANSI Accredited Standard addressing ***Fire Investigation Units (FIUs)*** from the National Institute of Standards and Technology (NIST), specifically the Organization of Scientific Area Committees (OSAC) Fire and Explosion Investigation Subcommittee.

(Fall 2017)

By contrast, much more research is needed on the natural variability of burn patterns and damage characteristics and how they are affected by the presence of various accelerants. Despite the paucity of research, some arson investigators continue to make determinations about whether or not a particular fire was set. However, according to testimony presented to the committee,¹¹⁸ many of the rules of thumb that are typically assumed to indicate that an accelerant was used (e.g., “alligatoring” of wood, specific char patterns) have been shown not to be true.¹¹⁹ Experiments should be designed to put arson investigations on a more solid scientific footing.

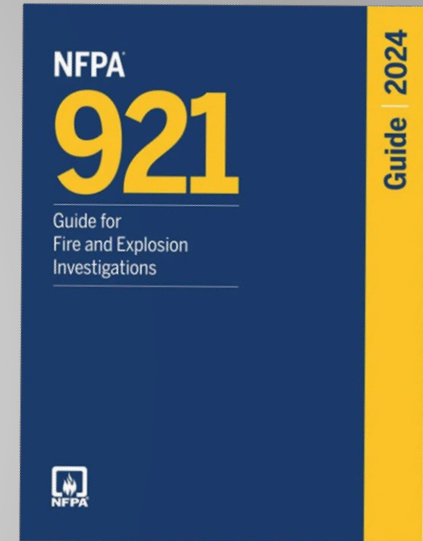


- Categories of Members
 - Federal Law Enforcement
 - State Fire Marshals
 - Private Fire Investigation Firms
 - Academics
 - Laboratories
 - Insurance
 - Engineering

The Fire and Explosion Investigation Subcommittee will be sunset in September 2025 due to budgetary constraints and the fact that the committee has fulfilled its charge. OSAC believes NFPA Technical Committees are sufficient to continue the improvement of standards related to fire investigation.



Three Legs of Fire Investigation



NFPA 1321 Fire Investigation Units

- The request defines a FIU as any public or private sector organizations performing fire and explosion investigations. This applies to any public agencies i.e. fire departments, law enforcement agencies involved in fire investigation, fire marshal offices, and private agencies such as consulting firms and insurance investigation units. The project as proposed will include individuals operating as part of a task force for specialized incidents, although the requester identifies that the proposed project is not intended to prescribe any requirements relating to the formation of a task force.

New Project on Fire Investigation Units (FIUs)

The National Fire Protection Association (NFPA) Standards Council is in receipt of a New Project Initiation Request for the development of an ANSI Accredited Standard addressing *Fire Investigation Units (FIUs)* from the National Institute of Standards and Technology (NIST), specifically the Organization of Scientific Area Committees (OSAC) Fire and Explosion Investigation Subcommittee.

The request defines an FIU as any public or private sector organizations performing fire and explosion investigations. This applies to any public agencies i.e. fire departments, law enforcement agencies involved in fire investigation, fire marshal offices, and private agencies such as consulting firms and insurance investigation units. The project as proposed will include individuals operating as part of a task force for specialized incidents, although the requester identifies that the proposed project is not intended to prescribe any requirements relating to the formation of a task force.

If the New Project Initiation is ultimately approved by the Standards Council, a new Technical Committee may be established and charged with the development of appropriate requirements related to *Fire Investigation Units (FIUs)*. Activities within the scope of the Technical Committee are anticipated to focus minimum requirements for fire and explosion investigation relating to:

Organization;

- Facilities and equipment;
- Compliance with safety procedures;
- Training;
- Certification and education;
- Document retention;
- Review and approvals of investigation reports; and
- Processes/management systems

NFPA is currently soliciting comments from interested organizations and individuals to gauge whether support exists for standards development addressing *Fire Investigation Units (FIUs)*. The request comes in response to the NIST/OSAC initiative to develop and identify standards and guides that will support professional quality investigations within the forensic community, in this instance specifically on the topic of fire and explosion investigation. The requester proposes that such a project will link naturally to the existing NFPA 921 and 1033, which provide guidance on how to complete a fire or explosion investigation and the qualifications (job performance requirements) of the individual.

NFPA specifically seeks input on the following:

1. Are you, or your organization, in favor of the development of an NFPA Standard pertaining to *Fire Investigation Units (FIUs)*?
2. Please state your reason(s) for supporting or opposing such standards development.
3. Are you or your organization interested in applying for membership on the Technical Committee if established by the Standards Council? If yes, please submit an application, in addition to your comments in support of the project, online at: [Submit online application](#)

Note: Applications being accepted for purposes of documenting applicant interest in committee participation. Acceptance of applications by NFPA does not guaranty or imply the Standards Council will ultimately approve standards development activity on this subject matter.

Please submit all comments, in support or opposition by October 13, 2017 to *Fire Investigation Units (FIUs)* standards development at: stds_admin@nfpa.org.

New Project on Service Support Personnel

The National Fire Protection Association (NFPA) Standards Council is in receipt of a New Project Initiation Request for the development of an ANSI Accredited Standard addressing *Professional Qualifications for Fire Service Support Personnel*. The submitter has indicated the need for a recognized universal standard *establishing professional qualifications to operate as a support member for the fire service*.

There are currently no known standards that address the role of individuals operating in the role of support member in the fire service.

If standards development is approved, the development of appropriate documents will necessitate the establishment of a new NFPA Technical Committee comprised of technical experts from within the field, including the public and private sectors. Standard development based upon this request, if approved, will focus on:

- *Developing a scope for personnel supporting active fire service operations not subject to Immediate Dangerous to Life or Health (IDLH) environments;*
- *Performing a Job Task Analysis related to the proposed support position; and*
- *Identifying Job Performance Requirements (JPRs) to established professional qualifications for the position of support member.*

NFPA is currently soliciting comments from interested organizations and individuals to gauge whether support exists for standards development addressing the scope of this project *in relation to existing professional qualification documents and assigning this project to the appropriate technical committee*. NFPA specifically seeks input on the following:

1. Are you, or your organization, in favor of the development of an NFPA Standard pertaining to minimum standards for fire service support personnel?
2. Please state your reason(s) for supporting or opposing such standards development.
3. Are you, or your organization, in favor of the development of the NFPA Standard to establish Professional Qualifications for Fire Service Support Personnel
4. Are you or your organization interested in applying for membership on the Technical Committee if established by the Standards Council? If yes, please submit an application, in addition to your comments in support of the project, online at: [Submit online application*](#)

**Note:* Applications being accepted for purposes of documenting applicant interest in committee participation. Acceptance of applications by NFPA does not guaranty or imply the Standards Council will ultimately approve standards development activity on this subject matter.

Please submit all comments, in support or opposition by October 13, 2017 to Professional Qualifications for Fire Service Support Personnel to standards development at: stds_admin@nfpa.org.

New Project on Fire Test for Wall Panels

The National Fire Protection Association (NFPA) is considering the development of an ANSI Accredited Standard addressing the

- The NFPA Standards Council published this request and requested public comments on the concept of a new standard in September 2017.

NFPA 1321 Fire Investigation Units

TO: Technical Committee on Fire Investigation Units

FROM: Linda Fuller

DATE: December 21, 2018

SUBJECT: Technical Committee Scope and Roster Approval

I am transmitting to you herewith the following action of the Standards Council (December 6-7, 2018):

18-12-19

The Council voted to approve the proposed scope of the Technical Committee on Fire Investigation Units as follows:

APPROVED SCOPE: This Committee shall have primary responsibility for standards relating to the development and composition of Fire Investigation Units (FIU). This committee does not have responsibility for the development of standards relating to fire investigation techniques, methodologies, or fire investigator professional qualifications.

18-12-22-c

The Council voted to approve the roster of the Technical Committee for Fire Investigation Units. The Council also voted to approve interest classification clarifications for the Technical Committee on Fire Investigation Units with an editorial correction to Consumer additional clarification as follows:

Additional Clarification: Any entity engaged in the practice of reviewing FIUs against the standard (both public and private).

- The Comments received by NFPA were split approximately 50/50, in favor and opposed.
- December 2018, the Standards Council appointed the committee to begin the development of the new document.

NFPA 1321 Fire Investigation Units

- Scope approved by the Standards Council:
 - This Committee shall have primary responsibility for standards relating to the development and composition of Fire Investigation Units (FIU). This committee **does not** have responsibility for the development of standards relating to fire investigation techniques, methodologies, or fire investigator professional qualifications.

(To avoid conflicts with NFPA 921 and 1033)

NFPA 1321 Fire Investigation Units

- Initial and Current Committee Makeup :
(Balance requires no more than 1/3rd of any one classification)
 - Special Experts – 8 (10)
 - Enforcers – 8 (7)
 - Users – 4 (7)
 - Insurance – 2 (3)
 - Consumers – 1 (2)
 - Manufacturer (1)

If you are interested in serving on this committee, go to the NFPA 1321 page at www.nfpa.org and complete the online application.

These Guidelines are for use by the Standards Council and the staff to assist in complying with 3.2.5 of the [Regulations Governing the Development of NFPA Standards](#).

The following classifications apply to Committee members and represent their principal interest in the activity of the Committee.

1. **Manufacturer (M)**: A representative of a maker or marketer of a product, assembly, or system, or portion thereof, that is affected by the standard.
2. **User (U)**: A representative of an entity that is subject to the provisions of the standard or that voluntarily uses the standard.
3. **Installer/Maintainer (I/M)**: A representative of an entity that is in the business of installing or maintaining a product, assembly, or system affected by the standard.
4. **Labor (L)**: A labor representative or employee concerned with safety in the workplace.
5. **Applied Research/Testing Laboratory (R/T)**: A representative of an independent testing laboratory or independent applied research organization that promulgates and/or enforces standards.
6. **Enforcing Authority (E)**: A representative of an agency or an organization that promulgates and/or enforces standards.

Note: The [Enforcer Funding Program](#) provides funding for NFPA Technical Committee participation for certain public sector Committee members who have been designated by the NFPA Standards Council, for purposes of committee balance, in the category of "Enforcing Authority (E)" ("Enforcers").

7. **Insurance (I)**: A representative of an insurance company, broker, agent, bureau, or inspection agency.
8. **Consumer (C)**: A person who is or represents the ultimate purchaser of a product, system, or service affected by the standard, but who is not included in (2).
9. **Special Expert (SE)**: A person not representing (1) through (8), and who has special expertise in the scope of the standard or portion thereof.
10. **Utility (UT)**: This classification is used specifically for the National Electrical Code project.

NFPA 1321 Fire Investigation Units

- Initial Committee Meeting January 2019
 - Via Conference call
- First In-Person Meeting April 2019
- The Committee voted to write the document in standard language to comply with the instructions of the Standards Council.
- Discussion on definition of FIU and organization of the document.
- Definition of FIU:
 - An entity within a private- or public-sector agency with the responsibility for fire or explosion investigation. (Initial working definition)
 - A stand-alone, public or private-sector agency or company that consists of two or more investigators with the responsibility for fire or explosion investigation. (1st Draft Change)
 - A group or office, of a public or private-sector agency or entity that consists of two or more investigators with the responsibility for fire or explosion investigation. (Final Definition)

■ Standards vs. Guides

2.2.1 Codes and Standards.

2.2.1.1 The main body of codes and standards shall consist of all mandatory requirements written in mandatory language.

2.2.1.2 The terms *shall*, *shall not*, and *shall be permitted* shall be used to indicate mandatory requirements.

2.2.1.3 All nonmandatory or informational text shall appear in Annex A or, in the case of specialized information, in additional annexes.

2.2.3 Guides.

2.2.3.1 The main body of guides shall consist of information that is advisory or informative in nature (nonmandatory provisions). (See [A.1.3.4](#).)

2.2.3.2 The main body of a guide shall use unenforceable terms. (See [4.2.2](#).)

2.2.3.3 Guides shall be permitted to mix recommendations and explanatory material in the main body of the guide.

NFPA 1321 Fire Investigation Units

- The committee voted to go with the basic outline of the document as provided by OSAC.
- Task Groups were appointed by the Chair for each chapter.
 - Their charge was to develop the subsections for their chapter and begin writing text.
- The process
 - Standards Council published the first draft for Public Comments Sept. 2022
 - Comment period closed January 2023
 - Standards Council published the second draft October 2023
 - A NITMAM (appeal of the committee's decision) was filed. NITMAM was to return document to committee, to be rewritten as a guide.
 - The NITMAM was certified by the Standards Council and was presented at and voted on at the June 2024 NFPA Annual Meeting. Motion was overwhelmingly defeated.

1321 FIRST DRAFT

- Public notice issued with closing date.
- Anyone can submit a proposal (except NFPA staff).
- Proposals can request any change.
- Reasons for change must be provided.
- Forms are on the NFPA Website (nfpa.org).
- All proposals must be acted on.

239 PI's

First Draft 277 Pages

1321 FIRST DRAFT

239 PI's

- Some PI's included:
 - Stop the document
 - Change the document from a “Standard” to a “Guide”
 - Strike private and make it only applicable to public sector
 - Change all “Shall” to “Should” globally (violates manual of style)
 - Many PIs related to the definition of an FIU
 - Many PIs from the OSAC Committee
- The NFPA Manual of Style is a controlling document
- Committee was balloted on all PI actions

1321 SECOND DRAFT (COMMENTS)

- Public notice issued with closing date.
- Anyone can submit a comment (except NFPA staff).
- Comments can only address topics addressed in the first draft.
- Reasons for change must be provided.
- Forms are on the NFPA Website (nfpa.org).
- All proposals must be acted on.

20 PCs

First Draft 28 Pages

1321 SECOND DRAFT

www.NFPA.org/1321

Some Comments included:

- Change the document from a “Standard” to a “Guide”
 - Strike public and make it only applicable to private sector
 - Change all “Shall” to “Should” globally
 - Several comments related to the definition of an FIU
 - Many comments from the OSAC Committee
- The NFPA Manual of Style is a controlling document
 - Committee met May 2023 to address all comments

NFPA 1321 Fire Investigation Units

- Committee Voted to Adopt (Basically) The OSAC Outline:
 - Chapter 1 Administration (11) (3)
 - Chapter 2 Reference Publications (3) (1)
 - Chapter 3 Definitions (13) (4)
 - Chapter 4 ~~Organization, Process and Management System Requirements~~ (13)(0)
 - Chapter 5 Outside Resources, Facilities, and Equipment (40) (0)
 - Chapter 6 Health and Safety (58) (2)
 - Chapter 7 Education, Training, and Certification (20) (1)
 - Chapter 8 Documentation and Reports (18) (1)
 - Annex's (7) (8)

NFPA 1321 Fire Investigation Units

■ Chapter 1 Administration

• 1.1 Scope

1.1.1 This standard shall specify the minimum requirements relating to the establishment, structure, operation and management of Fire Investigation Units.

1.1.2 In cases where a FIU has a parent organization (such as a fire department) and policies already exist that establish minimum requirements outlined within this document, the FIU shall be considered as having those requirements as part of their unit.

1.1.3* This standard shall not provide requirement relating to fire investigation methodology.

* Refers reader to NFPA 1033 and NFPA 921

1.1.4* This standard shall not provide requirements relating to professional qualifications.

* Refers reader to NFPA 1033

NFPA 1321 Fire Investigation Units



■ Chapter 1 Administration

- 1.1 Scope

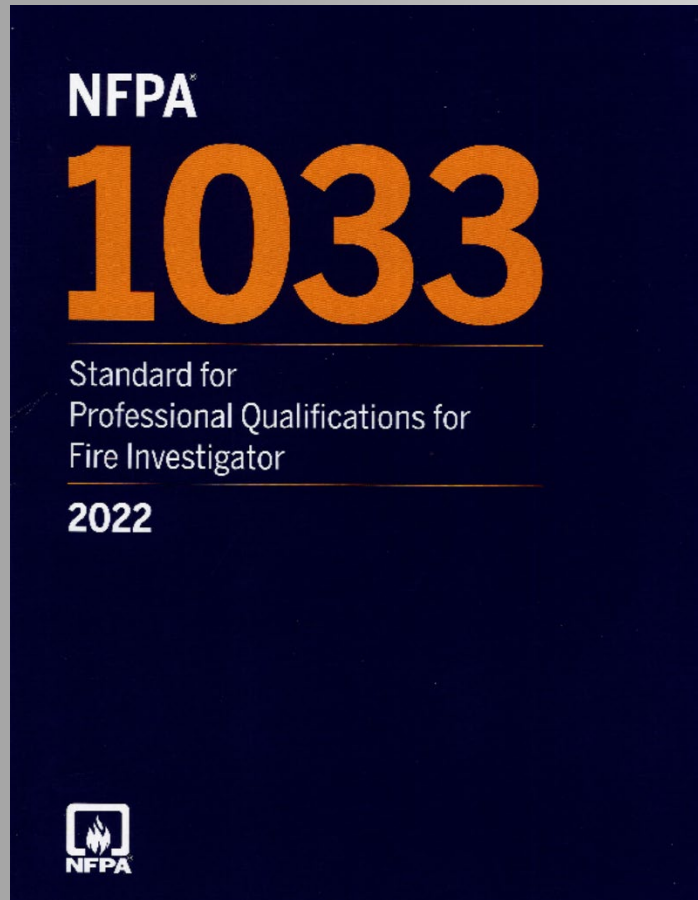
1.1.3* This standard shall not provide requirement relating to fire investigation methodology.

A.1.1.3 – The basic methodology for fire investigation is the scientific method. For additional information related to the scientific method, see NFPA 1033 and NFPA 921.

1.1.4* This standard shall not provide requirements relating to professional qualifications.

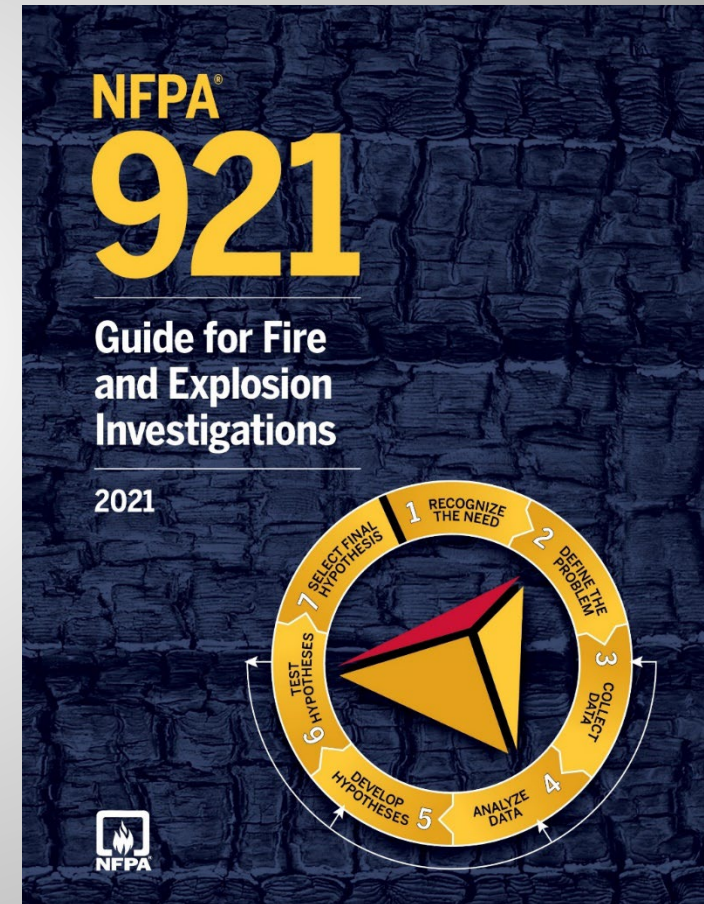
A.1.1.4 – The qualification for fire investigators can be found in NFPA 1033.

Qualifications



Vs.

Methodology



NFPA 1033 2022 Edition

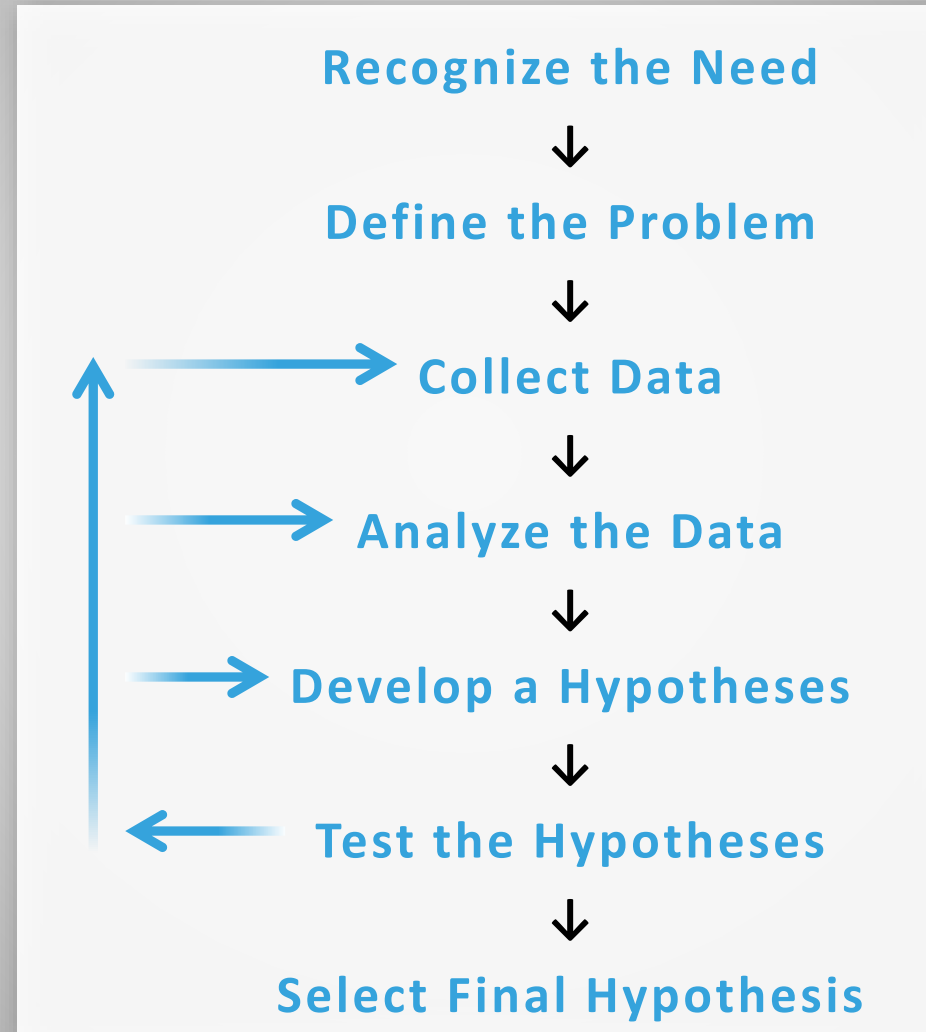
4.1.2

The fire investigator shall employ all elements of the scientific method as the operating analytical process through-out the investigation and for the drawing of conclusions.

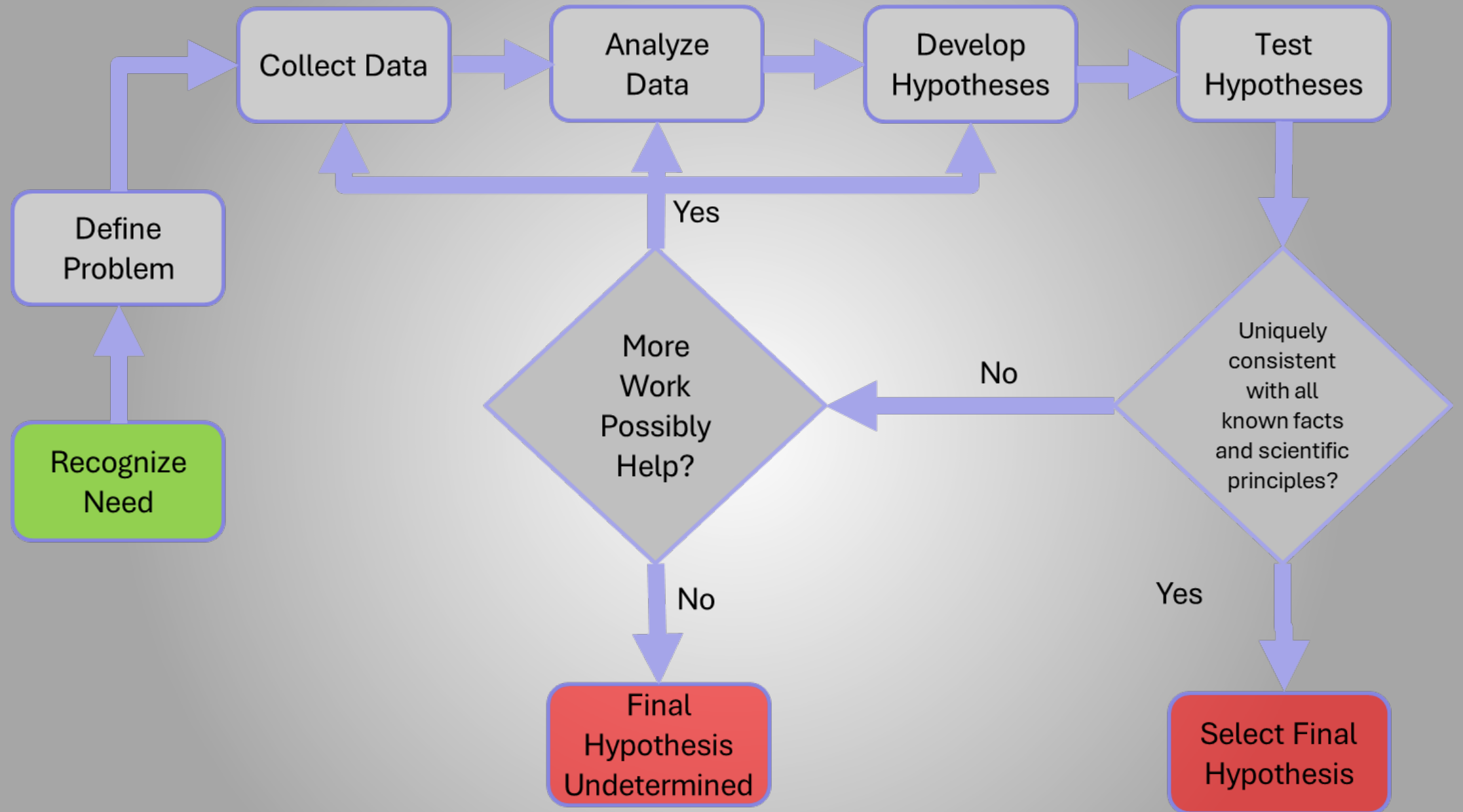
The Scientific Method is the required methodology for fire investigation!

The Scientific Method (NFPA 921, Chapter 4)

Demonstrate



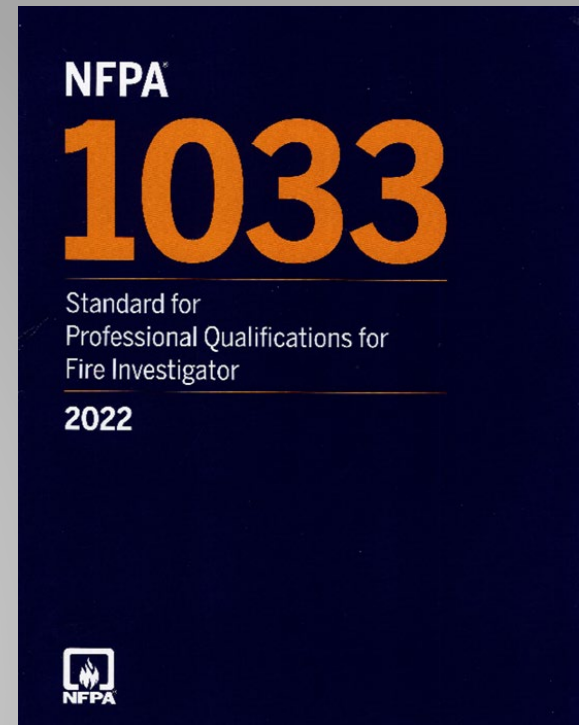
Articulate



NFPA 1033 2022 Edition

1.3.2.8 Prior to training to meet the requirement of this standard, personnel shall meet the following requirements:

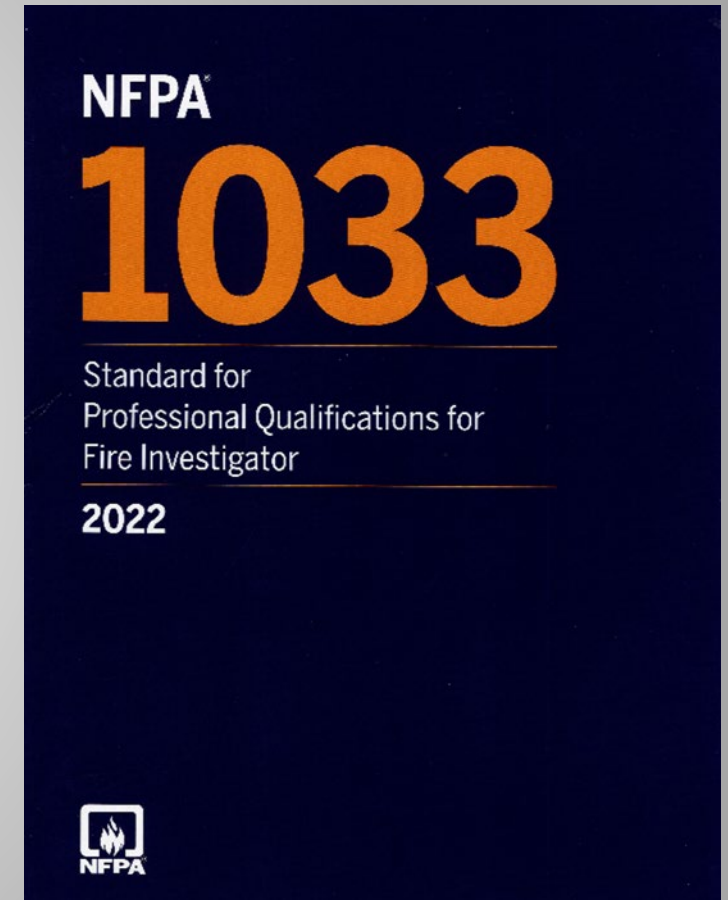
- Be at least age 18
- Have a high school diploma or equivalent
- Be subjected to a thorough background and character investigation by the AHJ prior to being accepted as an individual candidate for certification as a fire investigator.
- Have completed a minimum of 32 hours of tested training related to the requisite knowledge listed in this standard.



■ NFPA 1033 2022 Edition

1.2.4 – JPRs for each duty are the task personnel shall be able to perform to successfully carry out that duty.

- 28 JPR's that fall under 6 Groups
 - 4.2 Scene Examination (9)
 - 4.3 Documenting the Scene (3)
 - 4.4 Evidence Collection / Preservation (5)
 - 4.5 Interviews (3)
 - 4.6 Post-Incident Investigation (5)
 - 4.7 Presentation (3)



NFPA 1321 Fire Investigation Units



■ Chapter 1 Administration

— 1.2* Purpose

- This standard shall define the minimum requirements that are needed for the effective operation and management of FIUs to provide high quality fire and explosion investigations.
- **A.1.2** *This standard is not intended to replace or conflict with existing guidance such as NFPA 912 and 1033. Instead, these documents should be utilized to support the FIU framework established by NFPA 1321.*

— 1.3 Application

- This standard shall apply to public and private Fire Investigation Units.

NFPA 1321 Fire Investigation Units

■ Chapter 2 Reference Publications

- 2.1 - General
- 2.2 - NFPA Publication
- 2.3 – Other Publications
 - 2.3.1 - US Government Publication
 - » Code of Federal Regulations
 - 2.3.2 – Other Publications
 - » Webster's Collegiate Dictionary
- 2.4 – References for Extracts in Mandatory Sections
 - NFPA 921 – Guide for Fire and Explosion Investigations
 - NFPA 1033 – Standard for Professional Qualifications for Fire Investigator
 - NFPA 1550 – Standard for Emergency Responder Health and Safety

(The documents listed in chapter 2 are specifically referenced in the text of the document and are part of the requirements.)

NFPA 1321 Fire Investigation Units

Chapter 3 Definitions

(Specific to the document)

- Administrative Review (NFPA 921)
- Audit
- Conflict of Interest
- Cross-Contamination Control Program
- Ethical Principles
- Fire Investigation (NFPA 921)
- Fire Investigator (NFPA 1033)
- Fire Investigation Unit
- Mission Statement
- Professional Development
- Records Management System (RMS)
- Report
- Scope of Work
- Standard Operating Guidelines (SOGs)
- Standard Operating Procedures (SOPs)
- Technical Review (NFPA 921)

3.2.2* Authority Having Jurisdiction (AHJ)

- An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or procedure.
- **A.3.2.2** The phrase “authority having jurisdiction” is used in NFPA standards in a broad manner because jurisdictions and approval agencies vary, as do their responsibilities.

The key is who has approval authority over the FIU.

■ 3.3.5* Ethical Principles

Beliefs or values that when followed, promote values such as trust, professionalism, and objectivity.

- A.3.5 *There is not one consistent set of principles that all FIUs follow, but each FIU has the right to develop the principles that are meaningful to the unit.*

■ 3.3.13* Report

The act of providing an account of facts, observations, and/or opinions relating to past events or acts of an organization or its individuals

- A.3.3.13 *A report can be verbal or in writing.*

■ 3.3.14 Scope of Work

A written declaration that describes the division of work to be performed, which is typically broken into specific tasks.

Basically, a statement of what will
the unit do and not do.

3.3.15 Standard Operating Guidelines (SOGs).

- A written organizational directive that establishes or prescribes specific operational or administrative methods to be followed routinely, **which can be varied due to operational need** in the performance of designated operations or actions. [1521]

3.3.15 Standard Operating Procedures (SOPs).

- A written organizational directive that establishes or prescribes specific operational or administrative methods **to be followed routinely** for the performance of designated operations or actions. [1521]

NFPA 1321 Fire Investigation Units

Key Difference Areas	Policy	Procedure
Definition	A policy is a clear and concise statement containing a set of guidelines to achieve an organization's goals.	A procedure is a systematic sequence of the steps necessary to achieve tasks and policies set by the organization.
Goals	A policy reflects the organization's mission and values.	A procedure defines the application of the policies of the organization.
Nature of each concept	Policies are usually flexible and give room for changes in exceptional situations.	They are less flexible. Instructions have to be followed step-by-step to achieve the outcome.
How they are implemented	A policy is best implemented when it is completely accepted by the staff of an organization.	It is best implemented following a systematic and logical process. This allows for easy implementation.
Elements involved	A policy includes the terms and conditions that guide an organization in its decision-making.	It includes sequential steps that direct the people responsible for carrying out a task.
Change requirements	A policy can only be changed through a review process by the administrative team members.	An operation can be changed based on discretion at the operational level if a certain step is not practical within the working environment.
Need	A policy is needed to achieve an organization's objectives	A procedure is needed for properly implementing policies.

NFPA 1321 Fire Investigation Units

Examples of Policy vs Procedure

POLICY:

Section 5 – Fire Scene Processing and Documentation Protocols

5.1. General Policies/Scientific Method - The Fire Investigation Unit and its management and oversight team require its employees to utilize the scientific method while conducting fire investigations.

PROCEDURE:

7.1. Inspection methods and procedures

7.1.1. The Fire Investigation Unit, including all employees, shall employ the scientific method during all forensic fire scene investigations, tests, and examinations. Employees of the Fire Investigation Unit shall generally follow the guiding principles outlined in NFPA 921, Guide for Fire and Explosion Investigations or other authoritative treatises, including national and international standards, as appropriate.

NFPA 1321 Fire Investigation Units

■ Chapter 4 Management System Requirements

4.1 - General

4.1.1 – The fire investigation unit (FIU) shall establish, implement, and maintain a management system appropriate to the scope of its activities.

4.1.2 – The FIU shall document its policies, systems, programs, guidelines, and instructions to the extent necessary to assure the quality of fire investigations.

4.1.3 – The system's documentation shall be communicated to, understood by, available to, and implemented by the appropriate personnel.

4.1.4 – The FIU shall perform and document a management review annually that assesses performance against all requirements of the standard.

4.1.5 – The FIU shall have written policies and procedures for all personnel, administration, management, records retention, and standardized practices and methods.

NFPA 1321 Fire Investigation Units

■ Chapter 4 Management System Requirements

4.2 - Organization Systems

4.2.1 Administrative Requirements

4.2.1.1 Organizational Structure

4.2.1.2 Mission Statement or Scope of Work

4.2.1.3 Ethical Principles

4.2.2 Policies and Procedures

4.3 - Process Systems

4.3.1 Personnel Management

4.3.2 Facilities and Equipment

4.3.3 Workload Analysis

4.4 - Management Systems

4.4.1 Budget

4.4.2 Strategic Planning

4.4.3 Quality Assurance – Management and Internal Reviews

NFPA 1321 Fire Investigation Units

■ Chapter 4 Management System Requirements

4.2 - Organization Systems

4.2.1 Administrative Requirements

4.2.1.1 Organizational Structure

Written policies that establish the legal basis for the operation of the FIU and compliance with applicable federal, state, and local law shall be maintained by the AHJ.

4.2.1.2 Mission Statement or Scope of Work

The FIU shall have written protocols detailing services the unit will provide.

NFPA 1321 Fire Investigation Units

■ Chapter 4 Management System Requirements

4.2 - Organization Systems

4.2.1.3 Ethical Principles

4.2.1.3.1 The FIU shall have policies addressing integrity, accountability, independence and impartiality, respect, commitment, and conduct.

4.2.1.3.2 The FIU shall have policies regarding conflicts of interest and management of identified conflicts.

4.2.1.3.3 The FIU shall have policies and procedures identifying the management of information obtained or created through investigation activities to ensure the information is retained securely and only released in accordance with existing policies and procedures or legal mandates.

4.2.1.3.4 The FIU shall have written policies identifying the procedures for the handling of complaints, to include receiving, recording, evaluating, validating, and resolving the complaint.

4.2.2 Policies and Procedures

The FIU shall have written policies and procedures for personnel, administration, management, records retention, and standardized practices and methods utilized by the unit.

NFPA 1321 Fire Investigation Units

■ Chapter 4 Management System Requirements

4.3 - Process Systems

4.3.1 Personnel Management

Outlines the **written policies** and procedures required for managing people within the FIU.

4.3.2 Facilities and Equipment

Outlines the **written policies** and procedures required for procurement, maintenance, and personnel training for fire investigation facilities and equipment.

4.3.3 Workload Analysis

Requires an annual workload analysis of the FIU to measure performance outcomes and trends for:

- » Case Status
- » Resource evaluation
- » Benchmarking
- » Time accounting and productivity of personnel.

NFPA 1321 Fire Investigation Units

■ Chapter 4 Management System Requirements

4.4 - Management Systems

4.4.1 Budget

The FIU shall have a budgetary system that supports the goals, objectives, and outcomes of the unit in accordance with accepted accounting practices. (It is likely that the parent organization will have budgetary policies that the FIU will fall under. The main takeaway here is to make sure the budget supports the goals and objects of the FIU.)

4.4.2 Strategic Planning

The FIU shall establish procedures for the review of the mission, goals, objectives, and effectiveness of the unit at predetermined intervals. (This is part of getting better.)

4.4.3 Quality Assurance – Management and Internal Reviews

The FIU shall have a policy for the review of guiding document and management systems.

NFPA 1321 Fire Investigation Units

SOP's and SOG's

Existing SOP's or SOG's – most of this may already exist within your organization...

Washington County, NY has generated an excellent document.

IAAI is about to roll out an FIU Supervisor's Course which covers SOP/SOG development and management.

PHOENIX REGIONAL STANDARD OPERATING PROCEDURES		
FIRE CAUSE INVESTIGATION		
M.P. 202.13	02/10 – R	Page 1 of 6
<u>RESPONSIBILITY</u>		
The determination of fire origin and cause is necessary for all fire incidents. The Officer in Charge is responsible for determining when a Fire Investigator is needed. This determination is dependent on the information gathered at the scene and/or circumstances of the fire. The on-duty Fire Investigators are available through Dispatch and Deployment or by phone to consult with Command prior to or during response to assist Command. A fire investigation is conducted after fire control and salvage activities are completed, but before overhaul actions, which could hinder the investigation.		
<u>DISPATCH</u>		
A Fire Investigator dispatched by Dispatch and Deployment or called by the Officer in Charge, will respond to the scene reference the following circumstances: • Fire deaths or serious fire injuries • All working first alarm or greater structure fires • Fires for which the cause cannot be determined by Command on the scene • Explosions and bombings • Requested by Phoenix Police Department to respond to known arson fires • Car, field, or dumpster fires that have an identified lead or suspect in custody • Attempted arsons		
<u>NON-DISPATCH</u>		
A Fire Investigator is not needed for the following situations. The company officer is responsible for completing an accurate Field Incident Report to document the fire cause: • Minor fires where cause is determined to be accidental • Scalding burns, electrical accidents, and minor accidental burn injuries • Car fires originating in the engine area during vehicle operation, abandoned autos, or vehicle arsons with no identified suspects • Minor grass, fence, or trash fires with no witnesses or suspects • Traffic accident fatalities involving fire subsequent to collision (investigated by Phoenix Police Department) • To hold the scene until another agency or service responds • When requested to make contact with homeowner for the purpose of insurance matters • Minor fires caused by juveniles playing with fire, matches, etc. These incidents are referred to the Youth Firesetter Program. Referrals are made by completing the Youth Firesetter Referral Form on Firewire in the Links column, clicking PFD Programs and filling out the form or calling the Youth Firesetter Coordinator at 602-262-7757.		

NFPA 1321 Fire Investigation Units

■ Chapter 5 Outside Resources, Facilities, and Equipment

5.1* – Outside Resources

5.1.1 – The FIU shall have **written policies** for when and how to request additional resources anytime the needs of the investigation exceed the available manpower and expertise.

5.1.2* – The FIU shall not operate outside its area of expertise. **(Know your lane!)**

5.1.3 – The FIU shall have a **written policy** to identify the need to involve other resources and entities.

5.1.4* – The FIS **written policy** for evaluating the need for additional resources shall be based on when an event exceeds the FIU's capabilities and resources.

**** For both 5.1, 5.1.2, and 5.1.4 provide a good list for reference.***

NFPA 1321 Fire Investigation Units

■ Chapter 5 Outside Resources, Facilities, and Equipment

5.2 - Indoor/Outdoor Facilities (Parts of 5.2 were struck during the first draft)

5.2.1 – The FIU shall have a **written policy** for the collection, intake, storage, security, processing and evaluation of all evidence.

5.2.2 – **Written policies**, procedures, and controls to prevent and limit unauthorized access to evidence shall be established by the FIU.

5.3 – Systems and Equipment

FIUs shall have the types and quality of systems and equipment to perform their duties.

NFPA 1321 Fire Investigation Units

■ Chapter 6 Health and Safety

6.1 – General

The FIU shall have a health and safety program that meets the requirements of the AHJ.

6.2 – Health and Safety Program

- Policies, procedures, and reporting specifications
- Policies for the health and safety of personnel
- Local, state, provincial, tribal, or federal health and safety regulations
- Describe and specify baseline PPE needed to meet policy requirements
- Managed for compliance and include means to address noncompliance
- Contribute to the budget process to ensure funding for health and safety
- Regular periodic review of policies and procedures, at least annually
- Process for investigating and reporting incidents, injuries, or illness
- Consideration of lessons learned for policy review and change

NFPA 1321 Fire Investigation Units

■ Chapter 6 Health and Safety

6.1 – General

The FIU shall have a health and safety program that meets the requirements of the AHJ.

6.2 – Health and Safety Program

— Program shall have policies addressing:

- Baseline medical screening
- Written scene safety plan
- Respiratory protection
- Control for safety hazards
- Decontamination
- PPE
- Vehicle use
- Exposure reporting

NFPA 1321 Fire Investigation Units

■ Chapter 6 Health and Safety

6.3 - Personal Protective Equipment

6.3.1 – Members of the FIU shall be provided with PPE applicable to their prescribed duties.

6.3.2 – Members of an FIU shall be trained in the use, care, and decontamination of PPE.

6.3.3 – All PPE shall meet or exceed the requirements set forth in the applicable regulations or standards published by public and private agencies and applicable to NFPA standards.

6.3.4* – Employers shall train their personnel in site safety assessment of a fire scene prior to the determination of applicable PPE and other health and safety issues.

6.3.5* - An FIU shall have a policy for conducting a site safety assessment to evaluate environmental conditions, weather, structural integrity, and other factors prior to determining what PPE and safety control measures to use at any scene.

NFPA 1321 Fire Investigation Units

■ Chapter 6 Health and Safety

6.3 - Personal Protective Equipment

6.3.6* - Minimum PPE, based on the identified hazards shall include the following:

- 1 – Protective outerwear, structural fire suppression outerwear, or other protective garments.
- 2 – Foot protections
- 3 – Eye protection
- 4 – Head protection
- 5 – Hearing protection
- 6 – Respirator protection
- 7 – Hand protection
- 8 – Disposal gloves for evidence removal and recovery.

6.3.7 – Employers shall have a policy or procedure for the method of disposal or transport of used PPE in a manner that will not contaminate vehicles, tools, or clothing worn by fire investigation unit member after the scene is cleared and decontamination has occurred.

NFPA 1321 Fire Investigation Units

■ Chapter 6 Health and Safety

6.4 - Safety in the Laboratory or Workplace Areas – Occupational Exposure, Disease, and Other Trauma-Related Injuries-

A method to track occupational exposure, disease, and trauma-related injuries shall be developed, implemented, maintained, and audited on a 6-month basis.

6.5 - Vehicle Use

6.5.1 – The FIU shall establish a vehicle use policy to include: operation, maintenance, damage, decontamination, and necessary equipment.

6.6 - Special Scenes

6.6.1 – Special scenes are those with circumstances that require the use of PPE, equipment, investigative techniques, or other circumstances beyond the capabilities of the responding agency.

6.1.2 – Specialized PPE or equipment required for the processing of special scenes shall only be used by qualified personnel.

NFPA 1321 Fire Investigation Units

INTERNATIONAL ASSOCIATION OF ARSON INVESTIGATORS, INC. | HEALTH AND SAFETY COMMITTEE

BEST PRACTICES QUICK FACTS

EFFECTIVE AGENCY/COMPANY POLICIES ARE THE **CRITICAL** FIRST STEP TOWARDS **SUCCESSFUL** FIRE INVESTIGATOR HEALTH AND SAFETY PRACTICES

MINIMUM SAFETY ITEMS TO PREVENT HARM

- HELMET**
Protects from falling objects and falls.
- GOGGLES**
Help shield eyes from particulates.
- HEARING PROTECTION**
Guards ears from damaging noise levels.
- RESPIRATOR**
Preserves the health of one's respiratory system.
- GLOVES**
Prevents absorption of harmful substances.
- PROTECTIVE CLOTHING**
Keeps skin safe from harmful substances.
- BOOTS**
Protects legs and feet from hot surfaces and punctures.

WAYS THAT YOU CAN BE HARMED

- INHALATION**
Breathing in particulates, harmful gasses and vapors.
- INGESTION**
Eating/drinking without removing PPE (or not even wearing it) and washing.
- ABSORPTION**
Toxic substances may enter the body through the skin.
- DIRECT CONTACT**
Physical contact with hazards or harmful substances.
- INJECTION**
Puncture wounds from many potential sources.

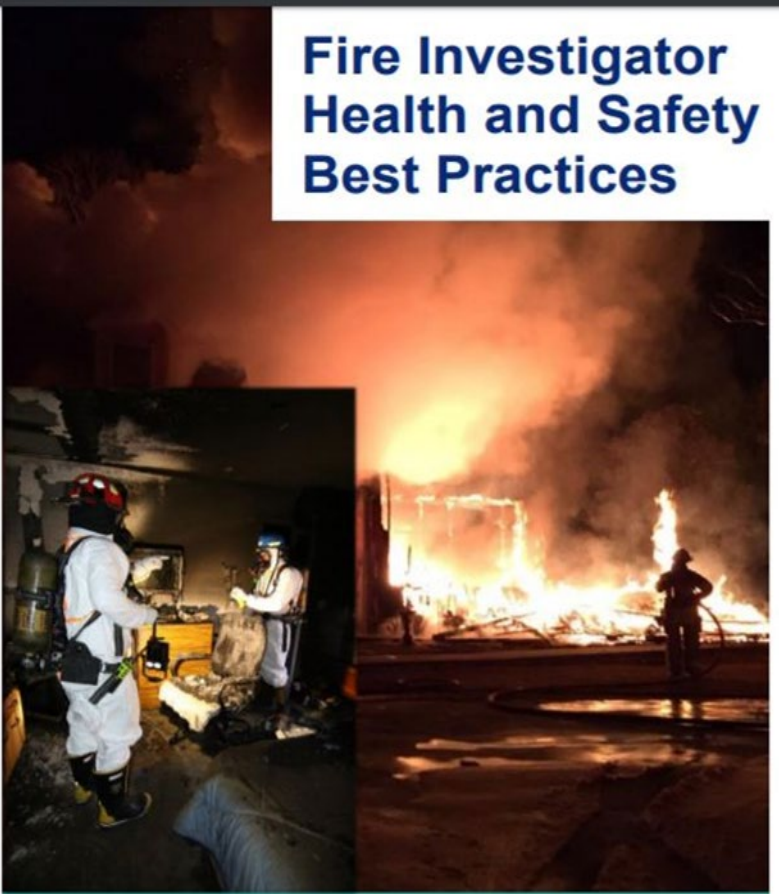
DON'T

STORE OR TRANSPORT
Contaminated items of any kind in the passenger compartment of your vehicle.



Wearing proper PPE for the situation will help you **LIVE A LONG LIFE!**

FOR ADDITIONAL INFORMATION View the IAAI Health and Safety Best Practices White Paper at: <https://www.FireArson.com/Publications-Resources/Fire-Investigation-Resources/Default.aspx>



Fire Investigator Health and Safety Best Practices



Second Edition
May 4, 2020

The International Association of Arson Investigators, Inc.
Health & Safety Committee

INTERNATIONAL ASSOCIATION OF ARSON INVESTIGATORS, INC. HEALTH AND SAFETY COMMITTEE



Fire Investigator Respiratory Protection Fact Sheet

This document references U.S. regulations/standards, documents and agencies. Readers from other countries should refer to the appropriate similar items for their country or, if none exists, use the U.S. ones for reference.



SCBA – photo courtesy of Scott

Self-Contained Breathing Apparatus (SCBA) certified by the U.S. National Institute for Occupational Safety and Health (NIOSH) **MUST** be used in all situations where the environment is immediately dangerous to life and health (IDLH), defined by the U.S. Occupational Safety and Health Administration (OSHA) as exposure to airborne contaminants that are at an atmospheric concentration of any toxic, corrosive, or asphyxiation substance that poses an immediate threat to life or would interfere with an individual's ability to escape from a dangerous atmosphere (OSHA 29 CFR 1910.120 (a) [3])

A correctly sized half-mask air purifying respirator (1/2 mask APR) and goggles OR a full-face air purifying respirator with proper filtration media/filters* should first be fit tested and then correctly worn by fire investigators at most every non-IDLH incident scene. Goggles should be ANSI rated and must fit tightly to minimize particulate exposure to the eyes. Alternatively, a full face, tight fitting, powered air purifying respirator (PAPR) with proper filtration media/filters* may be worn, provided a written respiratory protection program is established and implemented.



Half-mask APR and goggles



Full-face APR PAPR

Mask photos courtesy of 3M



Dust masks are NOT NIOSH-approved particulate filtering facepiece respirators (FFR) and are not approved for use in any fire investigation environment under any circumstances. See a list of NIOSH-approved FFRs at https://www.cdc.gov/niosh/nppi/topics/respirators/disp_part/default.html

This document was reviewed by the NIOSH Personal Protection Laboratory staff for compliance with applicable U.S. standards, documentation and language.

* Pursuant to 29 CFR 1910.134 (U.S. OSHA) the minimum acceptable filter for fire investigators is a P100/OV/AG filter or equivalent. This filter traps 99.97% of airborne particulates to .3 microns, oily particulates, organic vapor chemical compounds and solid gases, per respirator manufacturer specifications. Some available canisters, cartridges or particulate filters have other or additional protections from other gases and vapors and these are also acceptable, provided they have the NIOSH logo present and confirmation that the complete individual respirator has been awarded NIOSH approval to the original respirator manufacturer, since they are greater than the minimum requirement. A NIOSH rated CBRN Cap 1 air-purifying respirator canister, which is intended for emergency responder use at CBRN terrorism incidents, can be acceptable for fire and explosion investigation work, provided a written respiratory protection program is in effect and there is repeatable science that demonstrates the concentration gradients of the respiratory hazards present in the fire/explosion overhaul or post overhaul scene are less than IDLH and environmentally characterized at known concentrations that exceed the published OSHA permissible exposure limit (PEL) or a NIOSH restricted exposure limit (REL) as stated by OSHA or in the NIOSH Pocket Guide to Chemical Hazards, <https://www.cdc.gov/niosh/npg/pgrintro.html#key>

For additional information: View the IAAI Health and Safety white paper at: <https://www.firearson.com/Publications-Resources/Fire-Investigation-Resources/Health-Safety.aspx>

Washington County, NY Example

4.28 Safety Awareness

All safety practices shall be implemented during an investigation including air quality monitoring. Appropriate levels of personal protection equipment (PPE) shall be worn during the investigation in accordance with the County's Arson Control Plan and Chapter 6 of this document.

4.28.1 Safety Training.

All members of the Fire Investigation Unit shall complete any safety training required by the County on an annual basis.

4.28.2 Safety and Health Training and Education.

All members of the Fire Investigation Unit shall receive training and education to identify potential hazards at a fire or explosion scene including ongoing examination and analysis of work processes, practices, procedures, equipment, working conditions, hazard prevention and control in accordance with chapter 13 of NFPA 921, 2024 Edition.

4.28.3 Site Safety Assessment.

A site safety assessment shall be completed on all scenes and county and national safety standards shall be followed in accordance with NFPA 1033 Section 4.1.3, 2022 Edition.

4.28.4

The site safety assessment shall be documented in writing in the "site safety survey" portion of the County's Blazestack Workbook.

NFPA 1321 Fire Investigation Units

■ Chapter 7 Education, Training, and Certification

7.1 - Education and Training – In accordance with JPR's of 1033

7.1.1* – Personnel in the FIU shall receive education and training in the field of fire and explosion investigation. (* Lists examples of what training can include)

7.1.1.1 – The FIU shall establish procedures for education and training for members to remain current on requirements listed in NFPA 1033 and critical tasks related to fire investigation, as adopted by the FIU.

7.1.2.1 – The fire investigator shall have met the education requirement of NFPA 1033.

7.1.3.1 – Education and training records shall be maintained by the individual FIU personnel as well as the FIU in accordance with the management information system as prescribed in Chapter 4.

7.1.4 – Management shall evaluate the technical competencies of personnel prior to assigning them to conduct independent work.

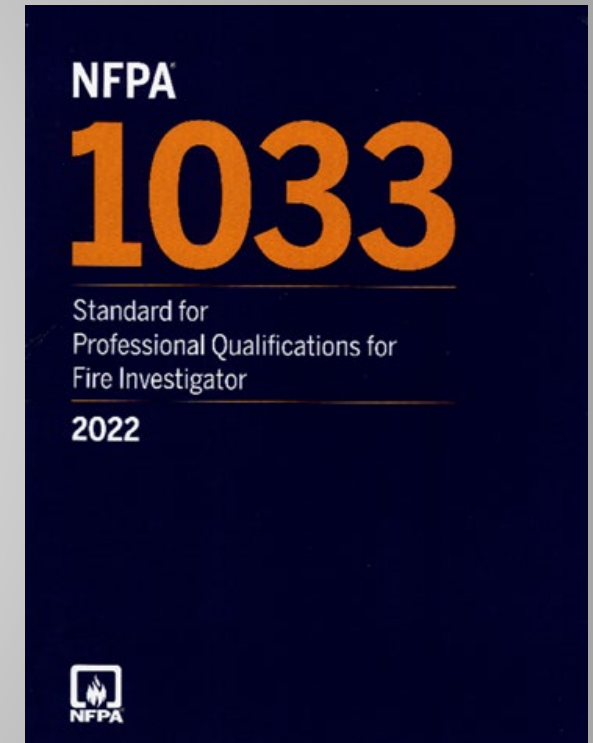
7.1.4.1* - Management shall develop and implement a method for the annual evaluation of proficiency of FIU personnel by an experienced and competent evaluator.

7.1.4.2 – Management shall document the competency and proficiency of FIU personnel.

***It is important that the fire investigator's techniques are periodically reviewed for competence to recommended practices. This can include shadowing on the scene, reviewing case files, presenting cases, having discussions, and testing.**

NFPA 1033 2022 Edition

- 28 JPR's that fall under 6 Groups
 - 4.2 Scene Examination (9)
 - 4.3 Documenting the Scene (3)
 - 4.4 Evidence Collection / Preservation (5)
 - 4.5 Interviews (3)
 - 4.6 Post-Incident Investigation (5)
 - 4.7 Presentation (3)



Proficiency vs. Competency Testing



- **Competency Testing** is a comprehensive test of technical skills as part of basic training prior to performing the actual work. It does not address the agency's overall quality system or performance, procedures, etc.
- **Proficiency Testing** evaluates, staff, training and methodology. Proficiency Testing is a measure of quality and the systems that maintain quality within an organization.

Proficiency Testing

- More specifically, proficiency testing is a means to evaluate the skills and abilities of individual fire investigators to perform analyses or tasks against pre-established criteria.
- It is realized through annual testing of individual fire investigators.
- The test requires investigators to examine and interpret data set(s) which have been previously characterized.
- This examination/interpretation requires investigators to use recommended methodologies (NFPA 921).



Examples of Proficiency Testing

Full case review?

Methods?

arc mapping,

electrical safety

post blast debris sifting

IAAI Evidence Collection
Technician

Tracking results – discoverable
track record that lasts forever!



Documenting Proficiency Testing

- Annual testing.
- Scored test – can be pass/fail.
- Can be re-tested if needed.
- Documented and provided to chain of command. You may not see documentation of your results.
- There is a legal mandate to preserve as discovery. Results may be turned over at every or some proceedings? The results are “forever documents”

Performance-Based Proficiency Testing

Purpose: This form collects proficiency testing information for all personnel attending the various programs/courses offered by the National Center for Explosives Training and Research (NCETR) or personnel assigned to the National Response Team (NRT). When completed, this form fulfills the documented information (record) requirements of NCETR's Quality Management System, including the requirements of ISO/IEC 17020, ISO/IEC 17024 and other international or national standards.

Instructions: For additional information on use of this form see NCETR-SOP – Performance-Based Proficiency Testing. Hardcopies of this form may be considered a "transitory document" or worksheet if the information is subsequently transcribed to a database, spreadsheet, or other record management system.

Notice: This is a "controlled document/form." The most current and official version of this form is maintained in the "Forms and Template (FT)" workspace on NCETR Huddle (<https://ncetr.huddle.com>). Printed or downloaded versions of this form should be considered an "uncontrolled copy." You are responsible for verifying any printed or downloaded versions of this form is current before use. When printed, an "UNCONTROLLED COPY" warning will appear in the footer of each page of this form. Version control, change history, tasks, reviews and approvals of this and all other controlled documents/forms is managed using NCETR Huddle.

PERSON TESTED				
Last Name	First Name	Middle Name or Initial	E-mail Address (ATF)	Phone Number (ATF)

STANDARDS OF TEST		
Date of Proficiency Test	Location of Proficiency Test	
February 25, 2020	NCETR, Huntsville, Alabama	
Course or Program		
National Response Team		
Subject, Topic, Process or Procedure of Proficiency Test		
Fire Scene Safety - Electricity		
Condition of Test		
Students shall be provided the necessary tools and PPE to enter a fire scene and to identify and avoid potential safety hazards associated with the electrical system, identify proper usage of the Lock Out/Tag Out system, and demonstrate proper usage of safety equipment on energized and de-energized electrical circuits. Each student shall be introduced to a fire scene staged by the evaluator. Each student must don appropriate PPE and then successfully assess and identify 4 safety hazards associated with the electrical distribution system such as exposed receptacle wires, exposed and damaged batteries, hanging and damaged light fixtures, and damaged extension cords. Students will have to assess a Circuit Break Box to determine if the Lock Out/Tag Out system has been properly applied. Students will have to use their safety equipment to assess one energized and one de-energized circuit to identify which is energized. There is no time limit for this evaluation.		
Evaluation Criteria	Potential Max Points	Points
Inspect and test AC Volt Detector	20	20
Utilize AC Volt Detector to examine two circuits.	20	20
Identify which of the two circuits is energized.	20	20
Don necessary PPE	10	10
Assess if LO/TO system has been properly applied to Circuit Breaker Box	10	10
Identify four electrical hazards. Each hazard is worth 5 points and awarded to the student if identified during the process.	20	20
TOTAL POINTS for all evaluation criteria (must always equal 100 points) ➡	100	100
Note: A TOTAL SCORE (SUM of all evaluation criteria above) of 80% or higher is passing/successful. For a TOTAL SCORE of less than 80%, see EVALUATOR COMMENTS below for remediation testing or other recommendations.		TOTAL SCORE ⚡
EVALUATOR COMMENTS		
PASSED.		

EVALUATOR				
Last Name	First Name	Middle Name or Initial	E-mail Address (ATF)	Phone Number (ATF)
ROBIN	MELVIN	D.	MELVIN.ROBIN@ATF.GOV	
Position or Title			Instructor Level	
NRT SUPERVISOR			Not Applicable	

PROGRAM MANAGER REVIEW				
Last Name	First Name	Middle Name or Initial	E-mail Address (ATF)	Phone Number (ATF)

UNCONTROLLED COPY: Printed on August 21, 2019. Destroy when no longer needed.

Page 1 of 2

NCETR-Form – Performance-Based Proficiency Testing page 1 of 2

■ Competency Testing:

- An example of competency testing would be passing your IAAI-CFI exam or the exam for this class. By passing that exam, you have demonstrated competency in the knowledge.

■ Proficiency Testing

- Proficiency defined as an advancement in knowledge or skill – Progress.
- This is ongoing testing to demonstrate knowledge or skill. An example would be taking the ECT class. By passing that test you have demonstrated proficiency in doing the work.

NFPA 1321 Fire Investigation Units

■ Chapter 7 Education, Training, and Certification

7.2 – Certification

7.2.1 – Fire investigators in an FIU shall be certified as meeting the requirement of NFPA 1033.

7.2.2 – The FIU management shall require personnel to maintain their certifications (or professional designations) in their respective disciplines through continuing education as determined by the FIU.

7.3 - Professional Development

7.3.1 – The FIU shall establish written protocol for all personnel operating within the FIU to attend ongoing professional development.

7.3.2 – The FIU shall have a policy to provide funding, support and opportunities for continuing professional development.

7.3.3 – The FIU shall establish a written policy for minimum hourly training requirements.

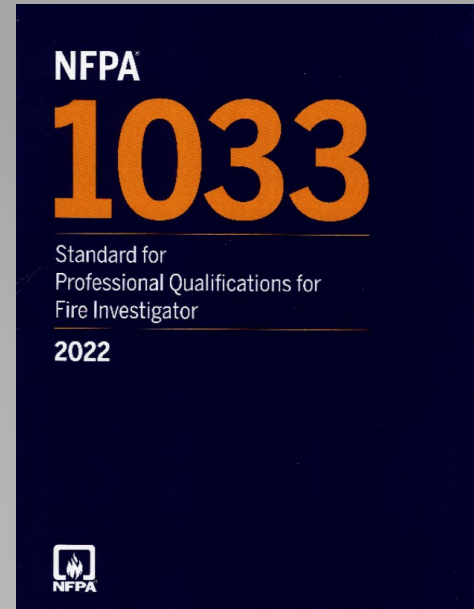
(“Certified” – Webster’s – To confirm formally, verified)

NFPA 1033 2022 Edition

4.1.7.1 – The fire investigator shall remain current in the subjects listed as “requisite knowledge” for the JPRs and as summarized in 4.1.7.

4.1.7.2 – The fire investigator shall remain current by attending formal education courses, workshops, in-person or online seminars, and/or through professional publications, journals, and treatises.

4.1.7.3 – 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.



NFPA 1033 2022 Edition – Proposed changes

4.1.7.3 – 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.

- *For the 2027 edition, there were five public inputs to change this requirement. They include:*
 - *Moving to 80 hours in five years*
 - *Moving to 20 hours annually*
 - *Moving to 40 hours annually*
- *However, the committee chose not to make a change to this during the First Draft.*
- *The Committee did add to 1.3.2.8 on training requirements for qualifications that a minimum of 32 hours of tested training was required.*

NFPA 1321 Fire Investigation Units

■ Chapter 8 Documentation and Reports

8.1 – Introduction

8.1.1 – The FIU shall have a policy for documenting fire scenes and be capable of reporting investigative findings.

8.2 – Documentation

8.2.1 – FIUs shall have a policy for the use of tools necessary to document a fire scene in accordance with NFPA 1033.

8.2.2 – FIUs shall have a policy related to the reception, retention, and security of the data received during and after an investigation.

8.2.3 – FIUs shall have a data and documentation archiving policy.

NFPA 1321 Fire Investigation Units

■ Chapter 8 Documentation and Reports

8.3 – Reports

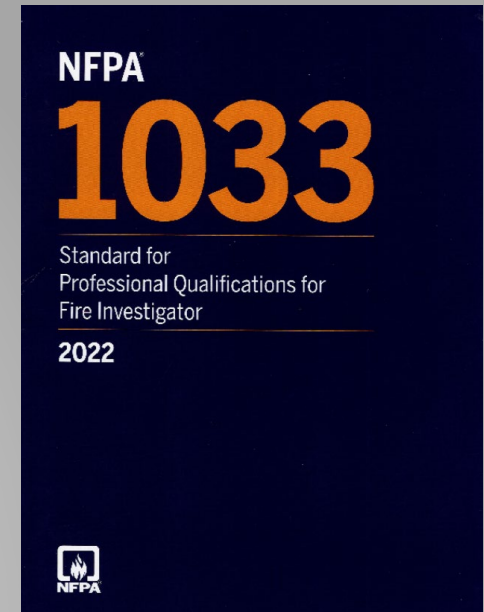
8.3.1* The FIU shall develop a report policy that ensures the reports reflect the investigation in accordance with NFPA 1033 and the FIU's standard operating procedures (SOPs).

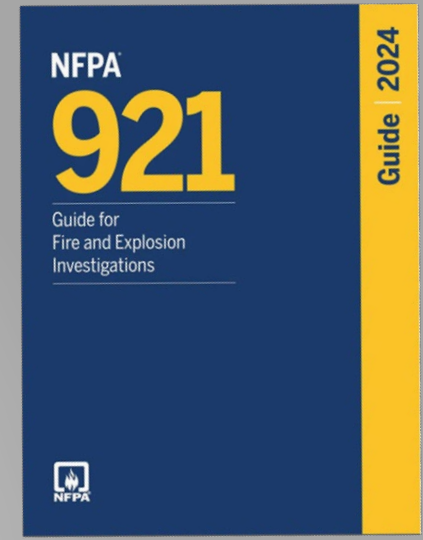
8.3.1.1 - The investigator responsible for the overall report per the FIU, shall ensure that the data is reliable, and its contents and collection are in accordance with NFPA 1033 and the FIU's SOPs.

8.3.2* – The FIU shall develop a policy that to ensure that fire and explosion origin and cause reports are authored by qualified fire investigators with the minimum qualifications outlined in NFPA 1033.

8.3.3.1 – FIUs shall have a policy to check with the appropriate client or agency to ensure that litigation reports meet the necessary requirements.

4.7.1* - Prepare a written report, given investigative finding, so that the report accurately reflects the facts, data, and scientific principles on which the investigator relied; clearly identifies **the hypotheses formed and analyzed; and clearly identifies and** expresses the investigator's opinions and conclusions; and contains the **basis, evidence, and** reasoning by which each opinion or conclusion was reached in order to meet the requirements of the intended audience(s).





16.5 Reports and Testimony

Purpose of Reports – The purpose of a written report is to document an accurate reflection of the investigator's observations, activities, analysis, and conclusions. The report should contain facts and data that the investigator relied upon to reach any opinions or conclusions. The report should also contain the investigator's reasoning of how each opinion was reached.

Tell The Story

NFPA 1321 Fire Investigation Units

All reports are NOT created equal!

- What jurisdiction are you in?
 - Reports for state court?
 - Reports for federal courts?
 - Public entity?
 - Private entity?
- Client expectations
- KNOW where you are and and the requirements!



NFPA 1321 Fire Investigation Units

All reports are NOT created equal!

— Federal Court – Rule 26 – Expert Reports

- Statement of qualifications.
- List of all opinions and basis for those opinions.
- The facts or data considered by the witness in forming opinions.
- List of all exhibits which may be used at trial.
- List of deposition or trial testimony for the last four years.
- List of all articles published in the last ten years.
- Compensation (This generally applies to the hourly rate on the private side.)

State courts may or may not follow the federal rules.

Methodology

■ Review Procedure – 4.6

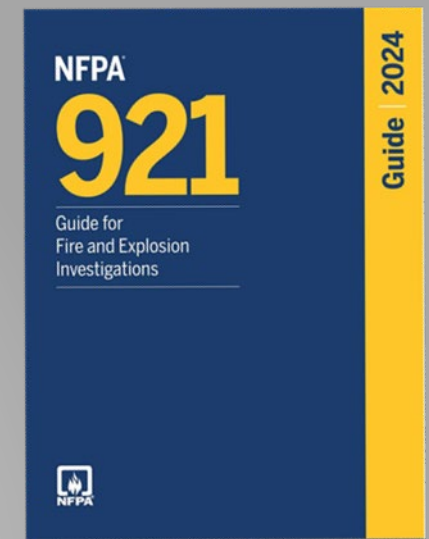
Having a review procedure for the investigators work can serve as an additional test of the various aspects of the investigators work product.

Types of Review

- Administrative Review
- Technical Review
- Peer Review

Methodology

- Review Procedure (4.6)



- Administrative Review

An administrative review is conducted to make sure the investigator's work product meets the organizations quality and assurance requirements.

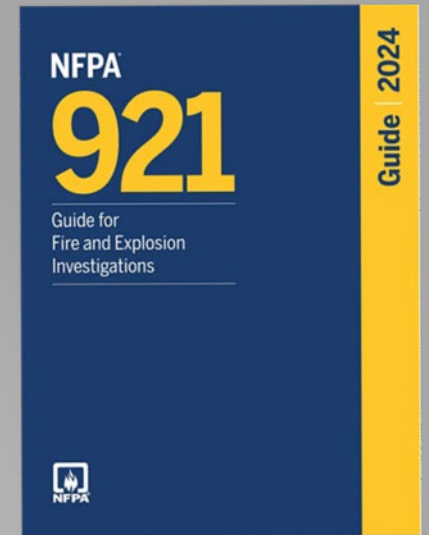
However, an administrative review may not provide the investigator with a critique of the technical aspects of the investigation.

Methodology

- Review Procedure (4.6)
 - Technical Review

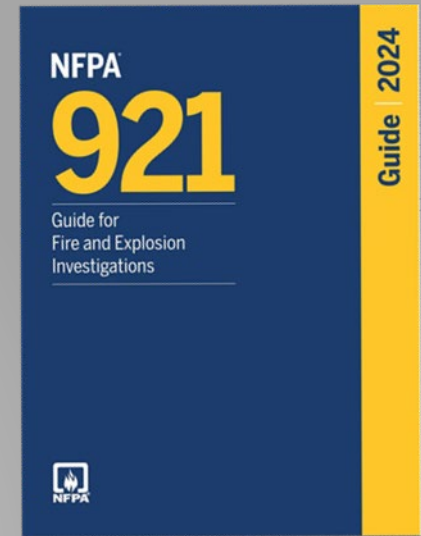
A technical review can have many facets. It may be a review of the entire investigation, or only a specific part of the investigation, such as the report.

A technical review is often conducted by a colleague. The reviewer should not let the relationship influence conducting a serious and critical review.



Methodology

- Review Procedure (4.6)



- Peer Review

Peer review is generally a formal procedure used in prepublication of documents. Both the author and reviewer are generally unknown to each other.

This is not the type of review generally conducted in the fire investigation industry.

NFPA 1321 Fire Investigation Units

■ Chapter 8 Documentation and Reports

8.4 - Quality Assurance / Quality Control

8.4.2.3 – The scope of the technical review shall ensure, at a minimum, the following:

- (1) The results, opinions, and interpretations are accurate, properly qualified, and supported by the case records.
- (2) The applicable policies and procedures were used.
- (3) The written reports contain all the required information.
- (4) The results are scientifically valid.

NFPA 1321 Fire Investigation Units

■ Chapter 8 Documentation and Reports

8.4 - Quality Assurance / Quality Control

8.4.2.4 – The person performing the technical review shall be qualified as a fire investigator and be technically competent in the areas specific to the scenario.

8.4.2.5 – The person performing the technical review shall not be the author(s) of the report.

8.4.2.6 – The technical review procedures shall include provisions for resolution of disagreements.

8.4.2.7 – The technical reviewer shall document the scope of the review and specifically detail any limitations or restrictions placed on the reviewer that could adversely affect the review.

8.4.2.8 – The FIU shall develop a policy to review expert witness testimony given by its investigators at a court or other proceeding.

8.5 – Audit - To ensure that the expressed policy is being implemented.

An Audit should be viewed as a process to evaluate where you are and how to get better!

NFPA 1321 Fire Investigation Units

■ Annex's

- **Annex B – Template Standard Operating Procedures/Guidelines**
- **B.1 – Purpose**
- **B.2 – Outline**
 - **B.2.1 – Title**
 - **B.2.2 – Introduction**
 - **B.2.3 – Scope**
 - **B.2.4 – Reference Documents**
 - **B.2.5 – Definitions**
 - **B.2.6 – Safety**
 - **B.2.7 – Procedure**
 - **B.2.8 – Deployment**
 - **B.2.9 – Documentation**
 - **B.2.10 – Recording Keeping**
 - **B.2.11 – Report**
 - **B.2.12 – Amendments**

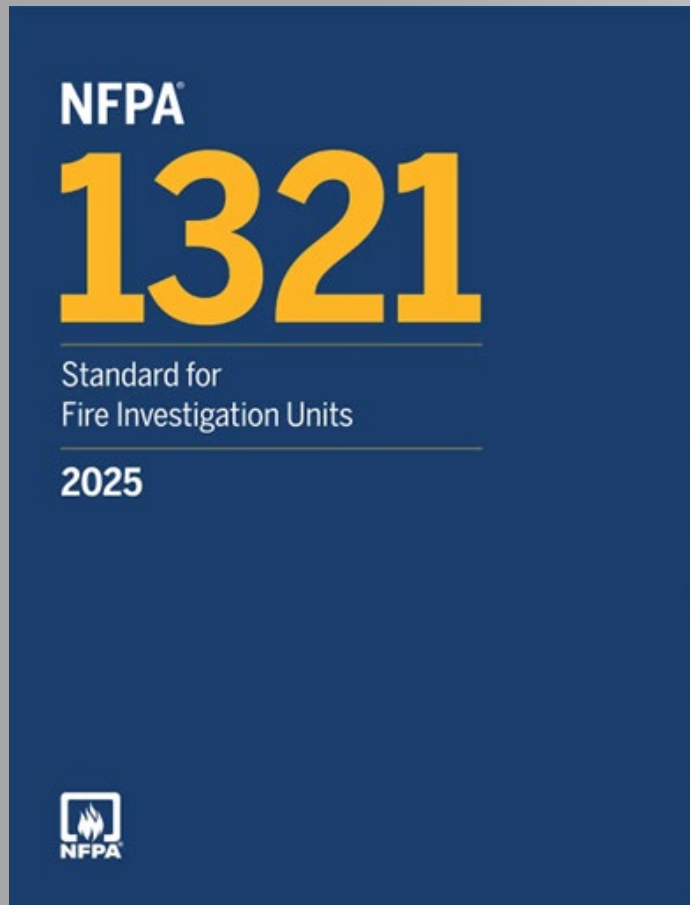
*Rise up Together,
Strive for Excellence*



**Tomorrow is the most
important thing in life,
comes into us at
midnight very clean.
Its perfect when
it arrives and it puts
itself in our hands.
It hopes we've
learned something
from yesterday.**



—John Wayne



Randy Watson,

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