First Revision No. 8-NFPA 1033-2025 [Section No. 1.3.2.8]

1.3.2.8

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

(1) Be at least age 18

(2) Have a high school diploma or equivalent

(3) 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

(4) Have completed a minimum of 32 hours of tested training related to the requisite knowledge listed in this standard

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Tue Jan 07 18:58:48 EST 2025

Committee Statement

Committee Statement: The technical committee recognizes that a candidate for professional qualification for fire investigator should have a certain amount of relevant training to accomplish to JPRs as well as understand fire scenes they have contact with. The TC encourages a candidate to understand the chapters in NFPA 921 on basic methodology, basic fire science, and fire investigator safety, health, and wellness.

Response Message: FR-8-NFPA 1033-2025

Public Input No. 36-NFPA 1033-2024 [Section No. 1.3.2.8]

Public Input No. 37-NFPA 1033-2024 [New Section after 4.1.1]

First Revision No. 22-NFPA 1033-2025 [Section No. 2.4]

2.4 References for Extracts in Mandatory Sections.

NFPA 101®, *Life Safety Code®*, ~~2021~~ 2024 edition.

NFPA 901, *Standard Classifications for Fire and Emergency Services Incident Reporting ~~and Fire Protection Data~~* , 2021 edition.

NFPA 921, *Guide for Fire and Explosion Investigations,* ~~2021~~ 2024 edition.

NFPA 1030, *Standard for Professional Qualifications for Fire Prevention Program Positions* , 2024 edition.

~~NFPA 1031, *Standard for Professional Qualifications for Fire Inspector and Plan Examiner* , 2014 edition.~~

Supplemental Information

File Name	Description	Approved
1033_FR-22_2.4_legislative_changes.docx	for prod use	

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Wed Jan 08 13:36:45 EST 2025

Committee Statement

Committee Statement: The TC identified updates to refenced NFPA Standards.

Response Message: FR-22-NFPA 1033-2025

Public Input No. 15-NFPA 1033-2024 [Section No. 2.4]

Public Input No. 40-NFPA 1033-2024 [Section No. 2.4]

First Revision No. 9-NFPA 1033-2025 [Section No. 4.1.7 [Excluding any Sub-Sections]]

In order to successfully complete the tasks identified in the JPRs of Sections 4.2 through 4.7, the fire investigator shall remain current in the subjects listed as “requisite knowledge” as they relate to fire investigations, which include the following:

(1) Fire science, including the following :

- (a) Fire chemistry
- (b) Thermodynamics
- (c) Fire dynamics
- (d) Explosion dynamics

(2) Fire investigation, including the following :

- (a) Fire analysis
- (b) Fire investigation methodology
- (c) Fire investigation technology
- (d) Evidence documentation, collection, and preservation
- (e) Failure analysis and analytical tools

(3) Fire scene safety, including the following :

- (a) Hazard recognition, evaluation, and basic mitigation procedures
- (b) Hazardous materials
- (c) Safety ~~regulations~~ procedures

(4) Building and utility systems, including the following :

- (a) Types of construction
- (b) Fire protection systems
- (c) Electricity and electrical systems
- (d) Fuel gas systems

Submitter Information Verification

Committee: PQU-FIV
Submittal Date: Tue Jan 07 19:07:12 EST 2025

Committee Statement

Committee Statement: The TC accepts the recommendation to change regulation to procedure. Procedures allow for a more encompassing fire safety actions on a fire scene. The TC also expanded building systems to include utilities.

Response Message: FR-9-NFPA 1033-2025

Public Input No. 27-NFPA 1033-2024 [Section No. 4.1.7 [Excluding any Sub-Sections]]

Public Input No. 28-NFPA 1033-2024 [Section No. 4.1.7 [Excluding any Sub-Sections]]

First Revision No. 28-NFPA 1033-2025 [Section No. 4.2.2]

4.2.2*

Conduct an exterior or perimeter survey, given standard equipment and tools, so that evidence is identified and preserved, fire damage is interpreted and analyzed, hazards are identified to avoid injuries, accessibility to the property or area is determined, and all potential means of ingress and egress are discovered.

(A) Requisite Knowledge.

The types of building construction and the effects of fire on construction materials, types of evidence commonly found in the perimeter, evidence preservation methods, the effects of fire suppression, fire behavior and spread, weather, topography, fire patterns, and a basic awareness of the dangers of hazardous materials.

(B) Requisite Skills.

Ability to assess fire ground and structural condition, observe the damage from and effects of the fire, and interpret and analyze fire patterns.

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Thu Jan 09 18:35:12 EST 2025

Committee Statement

Committee Statement: The TC changed the text to address outside and wildland fires, along with an exterior survey for structure and vehicle fires. This proposed change adds language to be more inclusive of outside and wildland fires.

Response Message: FR-28-NFPA 1033-2025

Public Input No. 11-NFPA 1033-2024 [Section No. 4.2.2(A)]

Public Input No. 8-NFPA 1033-2024 [Section No. 4.2.2 [Excluding any Sub-Sections]]

First Revision No. 2-NFPA 1033-2025 [Section No. 4.2.4 [Excluding any Sub-Sections]]

Interpret and analyze fire patterns, given standard equipment and tools and some structural ~~or content remains~~ , content, vegetation, or natural material remains , so that each pattern is identified and analyzed with respect to the burning characteristics of the material involved, and the stage of fire development, the effects of ventilation within the context of the scene, the relationship with all patterns ~~observed~~ , ~~and the understanding of~~ the methods of heat transfer that led to the formation of the patterns ~~identified and analyzed~~ , and the sequence in which the patterns were produced is determined.

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Tue Jan 07 16:44:32 EST 2025

Committee Statement

Committee Statement: The TC wanted to make it clear that outside and wildland fires are included in the standard. The TC identified that "understanding" is not a measurable action verb and reworded the JPR to conform with Pro-qual guidelines.

Response Message: FR-2-NFPA 1033-2025

Public Input No. 9-NFPA 1033-2024 [Section No. 4.2.4 [Excluding any Sub-Sections]]

Public Input No. 4-NFPA 1033-2023 [Section No. 4.2.4 [Excluding any Sub-Sections]]

First Revision No. 11-NFPA 1033-2025 [Section No. 4.2.6(B)]

(B) Requisite Skills.

Ability to employ search techniques that further the discovery of fire cause evidence and ignition sources, use search techniques that incorporate documentation, and collect and preserve ~~evidence~~ physical and digital evidence .

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Wed Jan 08 09:49:49 EST 2025

Committee Statement

Committee Statement: The TC recognizes that fire investigators need to have the skill and tools to recognize digital evidence as well as being able to preserve it because digital evidence can be compelling, because Daubert requires consideration of all the evidence and because digital evidence is perishable and needs to be preserved quickly.

Response Message: FR-11-NFPA 1033-2025

Public Input No. 16-NFPA 1033-2024 [Section No. 4.2.6(B)]

First Revision No. 4-NFPA 1033-2025 [Section No. 4.2.8 [Excluding any Sub-Sections]]

Inspect and analyze the performance of building and utility systems, including fire protection, detection, and suppression systems, HVAC, electricity and electrical systems, fuel gas systems, and building compartmentation, given standard and special equipment and tools, so that a determination can be made as to the need for expert resources; an operating system's impact on fire growth and spread is considered in identifying origin areas; defeated and failed systems are identified; and the system's potential as a fire cause is recognized.

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Tue Jan 07 17:18:39 EST 2025

Committee Statement

Committee Statement: The TC modified the section to be more inclusive to outside and wildland fires, while remaining applicable to structural and marine fires.

Response Message: FR-4-NFPA 1033-2025

Public Input No. 10-NFPA 1033-2024 [Section No. 4.2.8 [Excluding any Sub-Sections]]

First Revision No. 3-NFPA 1033-2025 [Section No. 4.4.2(A)]

(A) Requisite Knowledge.

Types of evidence, authority requirements, and impact of removing evidentiary items on civil or criminal proceedings (exclusionary or fire-cause supportive evidence); types, capabilities, and limitations of standard and special tools used to locate evidence; types of laboratory tests available; packaging techniques and materials; ~~and impact~~ tools, techniques, and procedures for preserving digital evidence; and the impact of evidence collection on the investigation.

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Tue Jan 07 17:10:47 EST 2025

Committee Statement

Committee Statement: The TC recognizes that collection of digital evidence is a different skill set than typical physical evidence and the fire investigator needs to have the knowledge to do so correctly.

Response Message: FR-3-NFPA 1033-2025

Public Input No. 18-NFPA 1033-2024 [Section No. 4.4.2(A)]

First Revision No. 6-NFPA 1033-2025 [Section No. 4.7.1 [Excluding any Sub-Sections]]

Prepare a written report, given investigative findings, so that the report accurately reflects the facts, data, and scientific principles on which the investigator relied; clearly identifies the hypotheses formed and analyzed; clearly identifies and expresses the ~~investigator's opinions~~ 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).

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Tue Jan 07 18:18:36 EST 2025

Committee Statement

Committee Statement: The TC recognizes that a fire investigation report needs to present the hypotheses considered and ruled out or in to present a complete representation and documentation of the scientific method used by the fire investigator to arrive at a determination. Not listing and describing the hypotheses considered results in an incomplete report. The 2024 edition of NFPA 921 was changed to reflect this need as well.

Response Message: FR-6-NFPA 1033-2025

Public Input No. 19-NFPA 1033-2024 [Section No. 4.7.1 [Excluding any Sub-Sections]]

First Revision No. 27-NFPA 1033-2025 [Section No. 4.7.3]

4.7.3*

Testify during legal proceedings, given investigative findings, so that the testimony accurately reflects the facts, data, and scientific principles on which the investigator relied; clearly identifies and expresses the investigator's opinions and conclusions; and contains the reasoning by which each opinion or conclusion was reached.

A.4.7.3

For guidance on expressing opinions, including in testimony, see Sections 4.5 and 16.5 of NFPA 921 .

(A) Requisite Knowledge.

Types of investigative findings, types of legal proceedings, professional demeanor requirements, and an understanding of due process and legal proceedings.

(B) Requisite Skills.

Communication and listening skills and ability to differentiate facts from opinion and determine accepted procedures, practices, and etiquette during legal proceedings.

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Wed Jan 08 16:39:09 EST 2025

Committee Statement

Committee Statement: The TC identified this explanatory material for proposed changes to s. 4.7.3 concerning testimony, which highlight changes in the 2024 ed. of NFPA 921.

Response Message: FR-27-NFPA 1033-2025

Public Input No. 49-NFPA 1033-2024 [New Section after A.4.7.1]

First Revision No. 12-NFPA 1033-2025 [Section No. A.4.1.7]

A.4.1.7

Up-to-date information on these topics can be found in the current edition of NFPA 921, which is written on a basic level for competency in fire and explosion investigation and updated on a three-year cycle. As stated in NFPA 921, “The purpose of [the] document is to establish guidelines and recommendations for the safe and systematic investigation or analysis of fire and explosion incidents.” . . . “[The] document is designed to produce a systematic, working framework or outline by which effective fire and explosion investigation and origin and cause analysis can be accomplished.” NFPA 921 also states, “[It] is not intended as a comprehensive scientific or engineering text. Although many scientific and engineering concepts are presented within the text, the user is cautioned that ~~these concepts are presented at an elementary level and additional~~ additional scientific or technical ~~sources~~ resources , training, and education may often need to be utilized in an investigation.”. . .“The documents or portions thereof listed in this [document] are referenced within this guide.”

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Wed Jan 08 11:34:23 EST 2025

Committee Statement

Committee Statement: The revision brings the quote from NFPA 921, subsection 1.3.5 into line with the revised wording from the 2024 edition.

Response Message: FR-12-NFPA 1033-2025

Public Input No. 38-NFPA 1033-2024 [Section No. A.4.1.7]

First Revision No. 13-NFPA 1033-2025 [Section No. A.4.2]

A.4.2

Documents and files reviewed when a scene is not otherwise available can include but not be limited to incident reports, notes, photographs, videos and other digital evidence including smart phones and motor vehicle data, diagrams and sketches, evidence, witness statements, test results, laboratory reports, and other information that would assist in the determination of the origin and cause.

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Wed Jan 08 11:38:34 EST 2025

Committee Statement

Committee Statement: The TC identifies that the prevalence of video cameras, mobile smart phones and vehicle data systems and the importance of these digital evidence dictates the need to include digital evidence in this list.

Response Message: FR-13-NFPA 1033-2025

Public Input No. 20-NFPA 1033-2024 [Section No. A.4.2]

First Revision No. 7-NFPA 1033-2025 [Section No. A.4.3.3]

A.4.3.3

For more information and sample forms for scene documentation, see Figure A.16.3.2(a) through Figure A.16.3.2(k) of NFPA 921~~, Figure A.16.3.2(a) through Figure A.16.3.2(k)~~ . For sample forms for documentation of compartment fire modeling data, see Figure A.16.3.2(k) of NFPA 921~~, Figure A.16.3.2(k)~~ .

For information on using process maps for coordinating and documenting the steps involved in a fire investigation, see the Organization of Scientific Area Committees' (OSAC's) "Fire Investigation Process Map (Current Practice)."

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Tue Jan 07 18:44:43 EST 2025

Committee Statement

Committee Statement: The technical committee determined there is value in referencing the OSAC process map. The article as submitted is beyond what the TC believes is necessary.

Response Message: FR-7-NFPA 1033-2025

Public Input No. 44-NFPA 1033-2024 [Section No. A.4.3.3]

First Revision No. 14-NFPA 1033-2025 [Section No. A.4.4.2]

A.4.4.2

Fire investigators should determine and identify in advance what authority and specific need each may have to seize and hold ~~item(s)~~ items considered to be evidence. Where such authority or need is lacking, items should not be seized.

For additional information regarding evidence collection methods, see ASTM E860, *Standard Practice for Examining and Preparing Items that Are or May Become Involved in Criminal or Civil Litigation*.

For additional information regarding evidence collection methods, see ASTM E1188, *Standard Practice for Collection and Preservation of Information and Physical Items by a Technical Investigator*.

For additional information regarding evidence labeling methods, see ASTM E1459, *Standard Practice for Physical Evidence Labeling and Related Documentation* .

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Wed Jan 08 11:41:46 EST 2025

Committee Statement

Committee Statement: The TC recognizes that all fire investigators need to be aware of this ASTM as well as the others that are already referenced in this section.

Response Message: FR-14-NFPA 1033-2025

Public Input No. 31-NFPA 1033-2024 [Section No. A.4.4.2]

First Revision No. 5-NFPA 1033-2025 [Section No. A.4.6.5]

A.4.6.5

For additional information regarding evaluation methods, see ASTM E678, *Standard Practice for Evaluation of Scientific or Technical Data*.

For instructions on formulating and expressing expert opinions, see Sections 4.5 and 16.5 of NFPA 921 .

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Tue Jan 07 17:42:49 EST 2025

Committee Statement

Committee Statement: The TC recognizes that NFPA 921, 2024 ed. substantially revised s. 4.5 on Expert Opinions and s.16.5 Reports and Testimony, and the TC added this annex text as a reference.

Response Message: FR-5-NFPA 1033-2025

Public Input No. 46-NFPA 1033-2024 [Section No. A.4.6.5]

First Revision No. 25-NFPA 1033-2025 [Section No. A.4.7.1]

A.4.7.1

For additional information regarding the contents of a written report and evaluation methods, see ASTM E620, *Standard Practice for Reporting Opinions of Scientific or Technical Experts*, and ASTM E678, *Standard Practice for Evaluation of Scientific or Technical Data*.

For guidance on expressing expert opinions, including in reports, see Sections 4.5 and 16.5 of NFPA 921 .

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Wed Jan 08 16:01:36 EST 2025

Committee Statement

Committee Statement: The TC recognizes that NFPA 921, 2024 ed., was significantly revised in dealing with reports, so this reference points the user of NFPA 1033 to this important new information.

Response Message: FR-25-NFPA 1033-2025

Public Input No. 47-NFPA 1033-2024 [Section No. A.4.7.1]

First Revision No. 31-NFPA 1033-2025 [Chapter B]

Annex B ~~Explanation of the~~ Understanding Professional Qualifications Standards and ~~Concepts of~~ Job Performance Requirements (JPRs)

This annex is not a part of the requirements of this NFPA document but is included for informational purposes only.

B.1 Definitions.

Accrediting Body. A voluntary, nongovernmental association that administers accrediting procedures for entities that certify individuals to fire service professional qualifications standards, or programs granting degrees in nonengineering fire/emergency services–related fields. [**1000,** 2022]

Certifying Entity. An organization that is accredited to award certification to individuals. [**1000,** 2022]

Cognitive Assessment Methodology. Cognitive written (knowledge) assessment methodology is used to evaluate a candidate's subject matter knowledge using a written test in which the candidate is required to provide specific answers to specific questions related to the job performance requirement (JPR), requisite knowledge (RK), or requisite skill (RS), of the standard and level to which the candidate is seeking certification. These responses are then securely scored in relation to the answer that has been determined to be correct through the local validation process.

Document Review. A process by which records are evaluated by an accredited agency to ensure a candidate meets RK and RS prior to, or concurrent with, JPR evaluation. This process can be used in lieu of testing the RK or RS. The following can be utilized to fulfill RK and RS under a document review protocol: certifications (accredited or nonaccredited), proof of completion of training (course completion or training records), licenses (FAA, EMS, others), experience (life learning), or other (subject to stakeholder approval).

Educators. Individuals and/or groups that provide instruction in a higher educational environment. This includes vocational/technical schools, community colleges, and colleges/universities, for the purpose of providing courses that satisfy degree or certificate requirements.

Portfolio Verification. A process used to determine compliance with the JPRs or objectives of the appropriate standard/level by verifying documentation of the candidate's experience, training, and education. A list of acceptable documents or items for each JPR would be predetermined. Examples include coursework at an educational center, participation in a certain number of investigations, and testifying at court.

Publisher. An organization that produces and/or releases for distribution textbooks, curricula, test items, and so forth in multiple media formats for education and training purposes.

Process Assessment Methodology. Used to evaluate a candidate's ability to use mental activity to perform a cognitive skill. An evaluator cannot directly observe this mental process. The trained evaluator grades the student in real time, using identified scoring criteria such as a rubric that can facilitate interrater reliability by allowing the evaluator to differentiate consistently between different degrees of candidate performance. There could be more than one acceptable outcome.

Product Assessment Methodology. Used to evaluate a candidate's ability to perform a cognitive skill that cannot be directly observed but is evaluated on how an individual completes the task outcome. The student is given an assignment that requires the application of knowledge to yield a product. A trained evaluator scores this product after it is submitted. The product is graded using identified scoring criteria such as a rubric.

Psychomotor Assessment Methodology. Used to evaluate a candidate's ability to perform physical tasks in a real-time skills performance evaluation. Candidates are required to correctly perform the physical task/skill identified by the critical components of the JPR and are evaluated on their directly observed performance. Correct performance outcome of the skill is normally indicated as part of the yes/no or pass/fail scoring checklist.

Requisite Knowledge and Requisite Skills (RK and RS). The necessary knowledge and skills the individual should have prior to or concurrently with being able to perform the task. Requisite knowledge and skills are the foundation for task performance.

Recertification. The process by which an individual maintains proficiency or certifies again, prior to the expiration of his/her certification. [**1000,** 2022]

Renewal. The process by which an individual certifies again, after the expiration of his/her certification. [**1000,** 2022]

Rubric. A scoring guide used to evaluate the quality of candidates' constructed responses listing as a minimum the criteria or characteristics that a candidate's performance should exhibit and describing specific quality levels for those criteria.

Trainer. Individuals or groups that provide instruction of knowledge and skills in a technical and/or vocational environment. This includes state fire training systems, county/regional training systems, and local fire department training units, for the purpose of providing basic and advanced level training.

B.2 ~~Explanation of the~~ Professional Qualifications Standards and the Concepts of ~~Job Performance Requirements (~~ JPRs~~)~~ .

The primary benefit of establishing national professional qualifications standards is to provide both public and private sectors with a framework of the job requirements for ~~the fire service~~ emergency services personnel . Other benefits include enhancement of the profession, individual as well as organizational growth and development, and standardization of practices.

NFPA professional qualifications standards identify the minimum job performance requirements (JPRs) for specific emergency services levels and positions. The standards can be used for training design and evaluation, certification, measuring and critiquing on-the-job performance, defining hiring practices, job descriptions, and setting organizational policies, procedures, and goals.

Professional qualifications standards for specific jobs are organized by major areas of responsibility defined as *duties*. For example, the firefighter's duties might include fire department communications, fireground operations, and preparedness and maintenance, whereas the fire and life safety educator's duties might include education and implementation, planning and development, and evaluation. Duties are major functional areas of responsibility within a specific job.

The professional qualifications standards are written as JPRs. JPRs describe the performance required for a specific job and are grouped according to the duties of the job. The complete list of JPRs for each duty defines what an individual must be able to do in order to perform and achieve that duty.

B.3 The Parts of a JPR.

B.3.1 Critical Components.

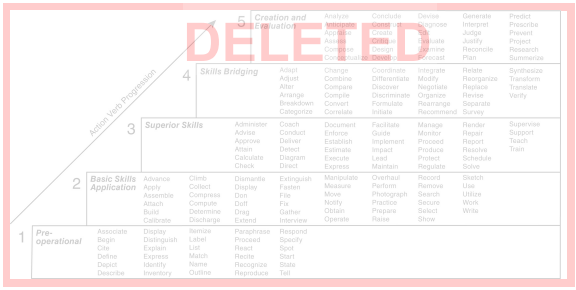
The JPR comprises three critical components, which are as follows:

(1) Task to be performed, partial description using an action verb *(See Figure B.3.1 for examples of action verbs used in the creation of JPRs.)*

(2) Tools, equipment, or materials that are to be provided to complete the task

(3) Evaluation parameters and performance outcomes

Figure B.3.1 Examples of Action Verbs.



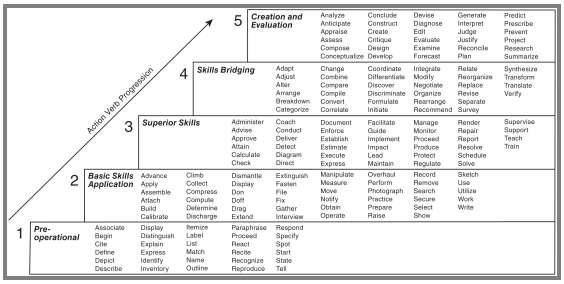


Table B.3.1 gives an example of the critical components of a JPR.

Table B.3.1 ~~Component~~ Example of a JPR

(1) Task to be performed	(1) ~~Perform overhaul at~~ Overhaul a fire scene,
(2) Tools, equipment, or materials	(2) given PPE, an attack line, hand tools, flashlight, and an assignment,
(3) Evaluation parameters and performance outcomes	(3) so that structural integrity is not compromised, all hidden fires are discovered, fire cause evidence is preserved, and the fire is extinguished.

B.3.1.1 The Task to Be Performed.

The first component is a concise statement of what the ~~individual~~ person is required to do. A significant aspect of that phrase is the use of an action verb, which sets the expectation for what is to be accomplished. The action verb must be used in context with the rest of the JPR.

B.3.1.2 Tools, Equipment, or Materials ~~that~~ That Should Be Provided for Successful Completion of the Task.

This component ensures that all the individuals completing the task are given the same tools, equipment, or materials when they are being evaluated. Both the individual and the evaluator will know what should be provided in order for the individual to complete the task.

B.3.1.3 Evaluation Parameters and Performance Outcomes.

This component defines — for both the performer and the evaluator — how well the individual should perform each task. The JPR guides performance toward successful completion by identifying evaluation parameters and performance outcomes. This portion of the JPR promotes consistency in evaluation by reducing the variables used to gauge performance.

B.3.2 Requisite Knowledge and Skills.

In addition to ~~these~~ the three components of a JPR , ~~a JPR describes~~ there are requisite knowledge and skills. As the term *requisite* suggests, these are the necessary knowledge and skills the individual ~~should~~ would have prior to being able to perform the task. Requisite knowledge and skills are the foundation for task performance.

B.3.3 Examples.

With the components and requisites combined, a JPR might be similar to the two examples in B.3.3.1 and B.3.3.2.

B.3.3.1 Example: Firefighter I.

~~Perform overhaul at~~ Overhaul a fire scene, given PPE, an attack line, hand tools, flashlight, and an assignment, so that structural integrity is not compromised, all hidden fires are discovered, fire cause evidence is preserved, and the fire is extinguished. [**1010:** 6.3.13]

(A) Requisite Knowledge.

~~Knowledge of types~~ Types of fire attack lines and water application devices for overhaul, water application methods for extinguishment that limit water damage, types of tools and methods used to expose hidden fire, dangers associated with overhaul, obvious signs of area of origin or signs of arson, and reasons for protection of fire scene. [**1010:** 6.3.13(A)]

(B) Requisite Skills.

The ability to deploy and operate an attack line; remove flooring, ceiling, and wall components to expose void spaces without compromising structural integrity; apply water for maximum effectiveness; expose and extinguish hidden fires in walls, ceilings, and subfloor spaces; recognize and preserve signs of area of origin and arson; and evaluate for complete extinguishment. [**1010:** 6.3.13(B)]

B.3.3.2 Example: Fire and Life Safety Educator II.

Prepare a written budget proposal for a specific program or activity, given budgetary guidelines, program needs, and delivery expense projections, so that all guidelines are followed and the budget identifies all ~~the~~ program needs. [**1030:** 10.2.1]

(A) Requisite Knowledge.

~~Knowledge of budgetary~~ Budgetary process; governmental accounting procedures; federal, ~~tribal,~~ state, and local laws; organizational bidding process; and organization purchase requests. [**1030:** 10.2.1(A)]

(B) Requisite Skills.

~~The ability to estimate~~ Estimate project costs; complete budget forms; requisition/purchase orders; collect, organize, and format budgetary information; complete program budget proposal; and complete purchase requests. [**1030:** 10.2.1(B)]

B.4 ~~Potential Uses of JPRs.~~ The Use of JPRs by Primary Stakeholders.

B.4.1 Accrediting Bodies.

The accrediting body utilizes JPRs to establish the minimum criteria a certifying entity can utilize in the evaluation of certification candidates at a specific job level.

The accrediting body should also assure the certifying body assesses the JPRs in a manner consistent with the entity's approved methodologies and the requirements found in NFPA 1000.

B.4.2 Certification Entities .

JPRs can be used to establish the evaluation criteria for certification at a specific job level. When used for certification, evaluation ~~should~~ would be based on the successful completion of ~~the~~ JPRs.

The evaluator ~~should~~ would verify the attainment of requisite knowledge and skills prior to, or concurrent with, JPR~~s~~ evaluation. Verification ~~could~~ would be through documentation review or testing.

The individual seeking certification ~~should~~ would be evaluated on the completion of ~~the~~ all or a selection of JPRs. The individual ~~should~~ would perform the task and be evaluated based on the evaluation parameters and~~/or~~ performance outcomes. ~~This performance-based evaluation is based on practical exercises for psychomotor skills and written examinations for cognitive skills.~~

~~Psychomotor skills are those physical skills that can be demonstrated or observed. Cognitive skills cannot be observed but rather are evaluated on how an individual completes a task (process-oriented) or on a task's outcome (product-oriented).~~

This performance-based evaluation would utilize assessment methodologies such as cognitive, psychomotor, product, and process. Other assessment methodologies could be utilized if approved by the accrediting body.

Portfolio verification is not an assessment methodology and can be utilized to fulfill some or all JPRs.

Performance evaluation requires that individuals be given the tools, equipment, or materials listed in the JPRs in order to complete the task.

Table B.4.2 provides examples of how assessment methodologies can be utilized by a certifying body.

Table B.4.2 Assessment Methodology Sample Utilization

Assessment of…	**How Assessed?**	**How Scored?**	**~~Methodology is Likely…~~ Method**
Knowledge/facts	A written test in which the candidate is required to provide specific answers to specific questions related to the JPRs	Responses are scored in relation to the answer that has been determined to be correct.	Cognitive
Action verb examples: identify, define, list, cite, state, choose, name	*Examples:* multiple choice, sequencing, true/false, fill-in-the-blank		
A manipulative skill in real time	A skills test to evaluate a candidate's ability to perform physical tasks in real time	The directly observed performance with the correct performance outcome of the skill is normally indicated as part of the yes/no or pass/fail scoring checklist.	Psychomotor ~~(skills)~~
Action verb examples: climb, build, perform, raise, haul, don	*Examples:* donning SCBA, raising ladders, tying rescue knots		
A cognitive skill that cannot be directly observed; the application of knowledge to yield a product	A work product created by the candidate usually outside of the classroom setting	Scoring rubric for expected responses evaluating how a candidate completes the task outcome after submission.	Product
Action verb examples: develop, create, write	*Examples:* creating a budget, report, proposal, lesson plan, incident action plan	Used to differentiate consistently between different degrees of candidate performance.	

Assessment of…	How Assessed?	How Scored?	~~Methodology is Likely…~~ Method
A mental activity to perform a cognitive skill in real time that cannot be directly observed	Candidate performs the activity in the presence of the evaluator~~; the verbalization of mental thought~~ with the explanation of mental thought, as necessary ~~"First, I…, then I…," etc.~~	Scoring rubric with questions and expected verbal responses.	Process
Action verb examples: inspect, investigate	*Examples:* performing an inspection, conducting an investigation	Used to differentiate consistently between different degrees of candidate performance.	
~~Documentation of the candidate's experience, training, and education against all JPRs~~ ~~*Action verb examples:* attend, participate, testify~~	~~A list of acceptable documents or items for each and every JPR~~ ~~*Examples:* coursework at training or college, participation in a certain number of investigations, testifying at court~~	~~This portfolio is evaluated using criteria that have been identified by the agency.~~	~~Portfolio~~

B.4.3 Curriculum Development and Training Design and Evaluation (Publishers, Trainers, and Educators) .

Publishers develop training materials for the fire and emergency service organizations including but not limited to certification test items and JPR correlation tables. They convert JPRs into instructional objectives and develop content to meet the intent of the standard and the training needs of the intended audience. Requisite knowledge and skills are converted into terminal and enabling objectives that define the material's content.

The publisher's goal is to best meet the training needs by publishing materials that meet the intent of the applicable standard. Subject matter experts (authors) use the objectives developed from the JPR as a roadmap to develop content. Review and validation of the material ensures the appropriate objectives to support those developed by training entities. Textbook content includes best practices within the fire and emergency services and the most up-to-date technology.

The statements contained in this document that refer to job performance were designed and written as JPRs. Although a resemblance to instructional objectives might be present, these statements should not be used in a teaching situation until after they have been modified for instructional use.

JPRs state the behaviors required to perform specific skills on the job, as opposed to a learning situation. These statements ~~should~~ would be converted into instructional objectives with behaviors, conditions, and the degree to be measured within the educational environment.

While the differences between JPRs and instructional objectives are subtle in appearance, their purposes differ. JPRs state what is necessary to perform the job in practical and actual experience. Instructional objectives, on the other hand, are used to identify what students ~~should~~ would do at the end of a training session and are stated in behavioral terms that are measurable in the training environment.

By converting JPRs into instructional objectives, instructors would be able to clarify performance expectations and avoid confusion caused by ~~the use~~ using ~~of~~ statements designed for purposes other than teaching. Instructors would also be able to add jurisdictional elements of performance into the learning objectives as intended by the developers.

Requisite skills and knowledge could be converted into enabling objectives, which would help to define the course content. The course content would include each item of the requisite knowledge and skills~~,~~ ensuring that the course content supports the terminal objective.

B.4.3.1 Example: Converting a Firefighter I JPR into an Instructional Objective.

The instructional objectives are ~~just~~ two of several instructional objectives that would be written to support the terminal objective based on the JPR.

JPR: ~~Perform overhaul at~~ Overhaul a fire scene, given PPE, attack line, hand tools, flashlight, and an assignment, so that structural integrity is not compromised, all hidden fires are discovered, fire cause evidence is preserved, and the fire is extinguished.

Instructional Objective (Cognitive): ~~The Firefighter I will identify~~ Identify and describe five safety considerations associated with structural integrity compromise during overhaul as part of a written examination.

Instructional Objective (Psychomotor): ~~The Firefighter I will demonstrate~~ Demonstrate the designed use of tools and equipment during overhaul to locate and extinguish hidden fires without compromising structural integrity.

B.4.3.2 Example: Converting a Fire and Life Safety Educator II JPR into an Instructional Objective.

~~This~~ These instructional ~~objectiveis just one~~ objectives are two of several instructional objectives that ~~could~~ would be written to support the terminal objective based on the JPR.

JPR: Prepare a written budget proposal for a specific program or activity, given budgetary guidelines, program needs, and delivery expense projections, so that all guidelines are followed and the budget identifies all program needs.

Instructional Objective (Cognitive): ~~The Fire and Life Safety Educator II will list~~ List and describe the bidding process for the purchase of a published program using budgetary guidelines, program needs, and the guidelines established by local organizational procedures as part of a written examination.

Instructional Objective (~~Psychomotor~~ Process): ~~The Fire and Life Safety Educator II will lead~~ Lead in the purchase of a specific fire and life safety educational program by following the bidding process to completion, using local organizational guidelines, including budgetary procedures, program needs, and delivery expense projections.

B.5 Other Uses ~~of~~ for JPRs.

While the professional qualifications standards are used to establish minimum JPRs for qualification, they have been recognized as guides for the development of training and certification programs~~,~~ as well as ~~a number of~~ other potential uses.

These areas might include the following:

(1) *Employee Evaluation/Performance Critiquing.* The professional qualifications standards can be used as a guide by both the supervisor and the employee during an evaluation. The JPRs for a specific job define tasks that are essential to perform on the job as well as the evaluation criteria to measure completion of the tasks.

(2) *Establishing Hiring Criteria.* The professional qualifications standards can be helpful in a number of ways to further the establishment of hiring criteria. The appointing/hiring authority ~~having jurisdiction (AHJ)~~ could simply require certification at a specific ~~job~~ level — for example, Firefighter I. The JPRs could also be used as the basis for pre-employment screening to establish essential minimal tasks and the related evaluation criteria. An added benefit is that individuals interested in employment can work toward the minimal hiring criteria at local ~~colleges~~ educational centers .

(3) *Employee Development.* The professional qualifications standards can be practical for both the employee and the employer in developing a plan for the employee's growth within the organization. The JPRs and the associated requisite knowledge and skills can be used as a guide to determine the additional training and education required for the employee to master the job or profession.

(4) *Succession Planning.* Succession planning addresses the efficient placement of individuals into jobs in response to current needs and anticipated future needs. A career development path can be established for targeted employees to prepare them for growth within the organization. The JPRs and requisite knowledge and skills could then be used to develop an educational path to aid in the employee's advancement within the organization or profession.

(5) *Establishing Organizational Policies, Procedures, and Goals.* The professional qualifications standards can be functional for incorporating policies, procedures, and goals into the organization or agency.

(6) *Maintenance of Proficiency Program.* The professional qualification standards can be utilized to assure minimum JPRs are upheld through evaluation, retraining/education, renewal, or recertification.

B.6 Bibliography.

Annett, J., and N. E. Stanton, *Task Analysis.* London and New York: Taylor and Francis, 2000.

Dubois, D. D., *Competency-Based Performance Improvement: A Strategy for Organizational Change.* Amherst, MA: HRD Press, ~~1999~~ 1993 .

Fine, S. A., and S. F. Cronshaw, *Functional Job Analysis: A Foundation for Human Resources Management(Applied Psychology Series)*. Mahwah, NJ: Lawrence Erlbaum Associates, 1999.

Fire Protection Research Foundation, NFPA, *Fire and Emergency Service Personnel Knowledge and Skills Proficiency* , 2019.

Gupta, K., C. M. Sleezer (editor), and D. F. Russ-Eft (editor), *A Practical Guide to Needs Assessment,* 3rd edition. San Francisco: ~~Jossey-Bass/~~ Pfeiffer, ~~2007~~ 2014 .

Hartley, D. E., *Job Analysis at the Speed of Reality.* Amherst, MA: HRD Press, ~~1999~~ 2014 .

Hodell, C., *ISD from the Ground Up: A No-Nonsense Approach to Instructional Design,* 3rd edition. Alexandria, VA: American Society for Training & Development, 2011.

Jonassen, D. H., M. Tessmer, and W. H. Hannum, *Task Analysis Methods for Instructional Design.* Mahwah, NJ: Lawrence Erlbaum Associates, 1999.

McArdle, G., *Conducting a Needs Analysis* (Fifty-Minute Book). Boston: Crisp Learning, 1998.

McCain, D. V., *Creating Training Courses (When You're Not a Trainer).* Alexandria, VA: American Society for Training & Development, 1999.

Morgeson, F. P., M. T. Brannick, ~~M. T.,~~ and E. L. Levine, *Job and Work Analysis: Methods, Research, and Applications for Human Resource Management ~~in the New Millennium~~* , 3rd edition. Thousand Oaks, CA: Sage Publications, ~~2002~~ 2019 .

~~NFPA 1001 , *Standard for Fire Fighter Professional Qualifications,* 2019 edition.~~

NFPA 1010, *Standard on Professional Qualifications for Firefighters* , 2024 edition.

NFPA 1030, *Standard for Professional Qualifications for Fire Prevention Program Positions* , 2024 edition.

~~NFPA 1035 , *Standard on Fire and Life Safety Educator, Public Information Officer, Youth Firesetter Intervention Specialist, and Youth Firesetter Program Manager Professional Qualifications,* 2015 edition.~~

Phillips, J. J., *In Action: Performance Analysis and Consulting.* Alexandria, VA: American Society for Training & Development, 2000.

~~Phillips, J. J., and E. F. Holton III, *In Action: Conducting Needs Assessment.* Alexandria, VA: American Society for Training & Development, 1995.~~

Robinson, D. G., and J. C. Robinson (editors), *Moving from Training to Performance: A Practical Guidebook.* Alexandria, VA: American Society for Training & Development; San Francisco: Berrett-Koehler, 1998.

Schippmann, J. S., *Strategic Job Modeling: Working at the Core of Integrated Human Resources.* Mahwah, NJ: Lawrence Erlbaum Associates, 1999.

Shepherd, A., *Hierarchical Task Analysis.* London and New York: Taylor and Francis, 2000.

Zemke, R., and T. Kramlinger, *Figuring Things Out: A Trainer's Guide to Needs and Task Analysis.* New York: Perseus Books, ~~1993~~ 1982 .

B.6.1 References for Extracts.

NFPA 1000, *Standard for Fire Service Professional Qualifications Accreditation and Certification Systems* , 2022 edition.

NFPA 1010, *Standard on Professional Qualifications for Firefighters* , 2024 edition.

NFPA 1030, *Standard for Professional Qualifications for Fire Prevention Program Positions* , 2024 edition.

Supplemental Information

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Submitter Information Verification

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Submittal Date: Fri Jan 17 21:22:33 EST 2025

Committee Statement

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Response Message: FR-31-NFPA 1033-2025

First Revision No. 29-NFPA 1033-2025 [Section No. C.1]

C.1 Fire Investigators.

The matrices shown in Table C.1 are included to provide the user of the standard with an overview of the JPRs for fire investigators and the progression of the various levels found in the document. They are intended to assist the user of the document with the implementation of the requirements and the development of training programs using the JPRs.

Table C.1 Fire Investigator

	Fire Investigator
	4.2 Scene Examination.
	Duties shall include inspecting, evaluating, and analyzing the fire scene or evidence of the scene, and 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, material(s) ignited, and action or activity that brought the ignition source and materials together and to assess the subsequent progression, extinguishment, and containment of the fire.
4.2.1	Secure the fire ground, given marking devices, sufficient personnel, and special tools and equipment, so that unauthorized persons can recognize the perimeters of the investigative scene and are kept from restricted areas and all evidence or potential evidence is protected from damage or destruction.
4.2.2	Conduct an exterior or perimeter survey, given standard equipment and tools, so that evidence is identified and preserved, fire damage is interpreted and analyzed, hazards are identified to avoid injuries, accessibility to the property or area is determined, and all potential means of ingress and egress are discovered.
4.2.3	Conduct an interior survey, given standard equipment and tools, so that areas of potential evidentiary value requiring further examination are identified and preserved, the evidentiary value of contents is determined, and hazards are identified in order to avoid injuries.
4.2.4	Interpret and analyze fire patterns, given standard equipment and tools and some structural ~~or~~ , content, vegetation, or natural material remains, so that each pattern is identified and analyzed with respect to the burning characteristics of the material involved, and the stage of fire development, the effects of ventilation within the context of the scene, the relationship with all patterns ~~observed~~ , ~~and the understanding of~~ the methods of heat transfer that led to the formation of the patterns ~~identified and analyzed~~ , and the sequence in which the patterns were produced is determined.
4.2.5	Interpret and analyze fire patterns, given standard equipment and tools and some structural or content remains, so that fire development, fire spread, and the sequence in which fire patterns were developed (i.e., sequential pattern analysis) are determined; methods and effects of suppression are analyzed; fire patterns and effects indicating a hypothetical area or areas of origin are recognized and tested; false or refuted hypothetical areas of origin are eliminated; and all fire patterns are tested against the data, such that the area(s) of origin is correctly identified.
4.2.6	Examine and remove fire debris, given standard or, if necessary, special equipment and tools, so that fire patterns and fire effects concealed by debris are discovered and analyzed; all debris within the potential area(s) of origin is checked for fire cause evidence; potential ignition source(s) is identified; and evidence is preserved without investigator-inflicted damage or contamination.
4.2.7	Reconstruct potential area(s) of origin, given standard and, if needed, special equipment and tools as well as sufficient personnel, so that all protected areas and fire patterns are identified and correlated to contents or structural remains; and items potentially critical to cause determination are returned to their prefire location as a means of hypothesis testing, such that the area(s) or point(s) of origin is discovered.
4.2.8	Inspect and analyze the performance of building and utility systems, including fire protection, detection, and suppression systems, HVAC, electricity and electrical systems, fuel gas systems, and building compartmentation, given standard and special equipment and tools, so that a determination can be made as to the need for expert resources; an operating system's impact on fire growth and spread is considered in identifying origin areas; defeated and failed systems are identified; and the system's potential as a fire cause is recognized.

	Fire Investigator
4.2.9	Discriminate the effects of explosions from other types of damage, given standard equipment and tools, so that an explosion is identified and its evidence is preserved.
	4.3 Documenting the Scene.
Duties shall include diagramming the scene, photographing, and taking field notes to be used to document scene findings, or to prepare a written report.	
4.3.1	Diagram the scene, given standard tools and equipment, so that the scene is accurately represented and evidence, pertinent contents, significant patterns, and area(s) or point(s) of origin are identified.
4.3.2	Photographically document the scene, given standard tools and equipment, so that the scene is accurately depicted and the photographs support scene findings.
4.3.3	Construct investigative notes, given a fire scene, available documents (e.g., prefire plans and inspection reports), and interview information, so that the notes are accurate, provide further documentation of the scene, and represent complete documentation of the scene findings.
	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.	
4.4.1	Utilize proper procedures for managing victims and fatalities, given a protocol and appropriate personnel, so that all evidence is discovered and preserved and the protocol procedures are followed.
4.4.2	Locate, document, collect, label, package, and store evidence, given standard or special tools and equipment and evidence collection materials, so that evidence 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 are avoided; and the chain of custody is established.
4.4.3	Select evidence for analysis, given all information from the investigation, so that items for analysis support specific investigation needs.
4.4.4	Maintain a chain of custody, given standard investigative tools, marking tools, and evidence tags or logs, so that written documentation exists for each piece of evidence and evidence is secured.
4.4.5	Dispose of evidence, given jurisdictional or agency regulations and file information, so that the disposal is timely, safely conducted, and in compliance with jurisdictional or agency requirements.
	4.5 Interview.
Duties shall include obtaining information regarding the overall fire investigation from others through verbal communication.	
4.5.1	Develop an interview plan, given no special tools or equipment, so that the plan reflects a strategy to further determine the fire cause and affix responsibility and includes a relevant questioning strategy for each individual to be interviewed that promotes the efficient use of the investigator’s time.
4.5.2	Conduct interviews, given incident information, so that pertinent information is obtained, follow-up questions are asked, responses to all questions are elicited, and the response to each question is documented accurately.
4.5.3	Evaluate interview information, given interview transcripts or notes and incident data, so that all interview data is individually analyzed and correlated with all other interviews, corroborative and conflictive information is documented, and new leads are developed.
	4.6 Post-Incident Investigation.
Duties shall include the investigation of all factors beyond the fire scene at the time of the origin and cause determination.	

	Fire Investigator
4.6.1	Gather reports and records, given no special tools, equipment, or materials, so that all gathered documents are applicable to the investigation, complete, and authentic; the chain of custody is maintained; and the material is admissible in a legal proceeding.
4.6.2	Evaluate the investigative file, given all available file information, so that areas for further investigation are identified, the relationship between gathered documents and information is interpreted, and corroborative evidence and information discrepancies are discovered.
4.6.3	Coordinate expert resources, given the investigative file, reports, and documents, so that the expert's competencies are matched to the specific investigation needs, financial expenditures are justified, and utilization clearly furthers the investigative goals of determining cause or affixing responsibility.
4.6.4	Establish evidence as to motive and/or opportunity, given an incendiary fire, so that the evidence is supported by documentation and meets the evidentiary requirements of the jurisdiction.
4.6.5	Formulate an opinion concerning origin, cause, or responsibility for the fire, given all investigative findings, so that the opinion regarding origin, cause, or responsibility for a fire is supported by the data, facts, records, reports, documents, scientific references, and evidence.
	4.7 Presentations.
Duties shall include the presentation of findings to those individuals not involved in the actual investigations.	
4.7.1	Prepare a written report, given investigative findings, so that the report accurately reflects the facts, data, and scientific principles on which the investigator relied; clearly identifies the hypotheses formed and analyzed; 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).
4.7.2	Express investigative findings verbally, given investigative findings, notes, a time allotment, and a specific audience, so that the information is accurate, the presentation is completed within the allotted time, and the presentation includes only need-to-know information for the intended audience.
4.7.3	Testify during legal proceedings, given investigative findings, so that the testimony accurately reflects the facts, data, and scientific principles on which the investigator relied; clearly identifies and expresses the investigator's opinions and conclusions; and contains the reasoning by which each opinion or conclusion was reached.

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Fri Jan 10 14:40:58 EST 2025

Committee Statement

Committee Statement: Technical committee updated to match proposed changes in chapter 4.

Response Message: FR-29-NFPA 1033-2025

First Revision No. 16-NFPA 1033-2025 [Section No. D.1.1.1]

D.1.1.1

Information regarding the subjects in D.1.1 is summarized in the appropriate chapters of NFPA 921 as follows:

(1) *Fire chemistry* — Chapter 5 of NFPA 921~~, Chapter 5, Basic Fire Science~~

(2) *Fire dynamics* — Chapters 5, 6, and 21 of NFPA 921~~, Chapter 5, Basic Fire Science; Chapter 6, Fire Patterns; and Chapter 22, Failure Analysis and Analytical Tools~~

(3) *Explosion dynamics* — Chapter 22 of NFPA 921~~, Chapter 23, Explosions~~

Submitter Information Verification

Committee: PQU-FIV

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Committee Statement

Committee Statement: The TC identified revisions to correlate with the 2024 edition of NFPA 921.

Response Message: FR-16-NFPA 1033-2025

Public Input No. 21-NFPA 1033-2024 [Section No. D.1.1.1]

First Revision No. 17-NFPA 1033-2025 [Section No. D.1.2.1]

D.1.2.1

Information regarding the subjects in D.1.2 is summarized in the following resources:

(1) *Fire investigation methodology* — Chapters 4, 12, 18, and 19 of NFPA 921~~, Chapter 4, Basic Methodology; Chapter 12, Legal Considerations; Chapter 18, Origin Determination; and Chapter 19, Fire Cause Determination.~~

(2) *Evidence* — Chapters 12, 16, and 17 of NFPA 921~~, Chapter 12, Legal Considerations; Chapter 16, Documentation of the Investigation; and Chapter 17, Physical Evidence.~~ *(see ASTM ~~Standards~~ E860, ASTM E1188, ASTM E1459, and ASTM E1492 ~~define~~ for requirements ~~for~~ on evidence topics)* ~~.~~

(3) *Failure analysis and analytical tools* — Chapter 21 of NFPA 921~~, Chapter 22, Failure Analysis and Analytical Tools.~~

Submitter Information Verification

Committee: PQU-FIV

Submittal Date: Wed Jan 08 12:52:23 EST 2025

Committee Statement

Committee Statement: The TC revised to correlate with the 2024 edition of NFPA 921.

Response Message: FR-17-NFPA 1033-2025

Public Input No. 22-NFPA 1033-2024 [Section No. D.1.2.1]

First Revision No. 19-NFPA 1033-2025 [Section No. D.1.3 [Excluding any Sub-Sections]]

The term *fire* scene *safety* as used in this standard refers to a group of interrelated subjects listed in D.1.3(1) through D.1.3(3).

(1) *Hazard recognition, evaluation, and mitigation*, as follows :

- (a) How to conduct a site safety assessment
- (b) Recognition and evaluation of hazards (structural, mechanical, electrical, chemical, biological, confined space, and physical)
- (c) ~~The procedures~~ Procedures to mitigate hazards
- (d) Lockout/tagout
- (e) Recognition of incident command system (ICS)
- (f) Assignment of a safety officer
- (g) Selection, donning and doffing, and maintenance of PPE
- (h) Proper decontamination

(2) *Hazardous materials*, as follows :

- (a) How to evaluate safety data sheets (SDS)
- (b) How to select proper PPE, given the hazardous material identified
- (c) ~~The level~~ Level of training required to operate in a hazardous environment
- (d) Decontamination procedures
- (e) Placard systems *[For NFPA and globally harmonized systems (GHS), see NFPA 704.]*
- (f) Collection, transportation (DOT), storage, and disposal of hazardous evidence
- (g) EPA and other jurisdictional regulations related to disposal

(3) *Safety regulations*, as follows :

- (a) Jurisdictional safety requirements
- (b) Transportation of hazardous evidence
- (c) Jurisdictional environmental regulations

Submitter Information Verification

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Committee Statement

Committee Statement: The TC added "scene" to correlate to the title of the section.
Response Message: FR-19-NFPA 1033-2025

First Revision No. 18-NFPA 1033-2025 [Section No. D.1.3.1]

D.1.3.1

Information regarding the subjects in D.1.3 can be found in the following resources:

(1) *Hazard recognition* — Chapter 13 of NFPA 921~~, Chapter 13,Safety~~ .

(2) *Hazardous materials* — Chapter 13 of NFPA 921~~, Chapter 13, Safety~~ . (NFPA 400 contains requirements regarding hazardous materials. Operating around hazardous material is often covered by state and federal laws, which must be understood by investigators working in different jurisdictions. Knowledge and skills in this area are taught in professional training courses and seminars provided by a variety of sources.)

(3) *Safety ~~regulations~~ procedures* — Chapter 13 of NFPA 921~~, Chapter 13, Safety~~ ; 29 CFR 1910; and 29 CFR 1926~~.~~ (This information is taught in professional training courses and seminars provided by a variety of sources.)

Submitter Information Verification

Committee: PQU-FIV

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Committee Statement

Committee Statement: The TC revised to correlate with the 2024 edition of NFPA 921. Additionally recognized the change from regulations to procedures.

Response Message: FR-18-NFPA 1033-2025

Public Input No. 23-NFPA 1033-2024 [Section No. D.1.3.1]

First Revision No. 26-NFPA 1033-2025 [Section No. D.1.4]

D.1.4 Building and Utility Systems.

The term *building and utility systems* as used in this standard refers to a group of interrelated subjects listed in D.1.4(1) through D.1.4(4):

(1) *Types of construction*, as follows :

(a) Recognizing different classifications of building construction

(b) How ~~the~~ features of the building will influence fire growth and spread

(2) *Fire protection systems*, as follows :

(a) Passive and active fire protection and how they influence fire dynamics

(b) ~~How~~ Ability to recognize and collect ~~the~~ data available from fire protection systems

(c) ~~How~~ Ability to avoid spoliation in examining and documenting the systems and prevent the loss of volatile data

(d) ~~The differences~~ Differences between initiating and notification devices

(e) Smoke management systems

(f) ~~How~~ Ability to document ~~the~~ systems and their activation

(g) ~~How~~ Ability to identify when ~~such~~ systems perform or fail to perform their intended functions

(h) In cases of failures, knowledge of what steps to take to understand the cause of the failure or reach out to a subject matter expert

(i) ~~Note: Examination~~ Recognize whether examination , analysis, and documentation of fire protection systems ~~could~~ requires the assistance of a fire protection professional~~.~~

(3) *Electricity and electrical systems*, as follows :

(a) Function and components of electrical transmission and distribution systems

(b) ~~The design~~ Design , function, and components of residential electrical systems

(c) ~~How~~ Ability to determine whether the electrical system was energized at the time of the fire

(d) ~~How~~ Ability to determine whether the electrical system played a part in the initiation or spread of a fire, which includes the ability to distinguish electrical damage from environmental damage

(e) ~~The ability~~ Ability to decide when it is necessary to call in someone with more advanced electrical knowledge

(f) ~~How~~ Ability to conduct and interpret an arc survey

(g) ~~How~~ Ability to describe and identify how electrical energy can cause heating, which can be the ignition source of the fire (e.g., high-resistance heating, arcing through char, ~~and~~ overloading)

(4) *Fuel gas systems*, as follows :

(a) ~~The design~~ Design and components of a gas system

(b) ~~The differences~~ Differences between propane gas and natural gas

(c) ~~How~~ Ability to document the gas source and its distribution to the appliances

(d) ~~How~~ Ability to document the combustion air supply and flue gas exhaust

(e) ~~The operation~~ Operation of residential gas appliances

(f) ~~The distribution~~ Distribution system of gas to the structure

(g) ~~How~~ Ability to determine the source of the fugitive fuel gas

D.1.4.1

Information regarding the subjects in D.1.4 can be found in the following resources:

(1) *Types of construction* — NFPA 921 and NFPA 220~~.~~

(2) *Fire protection systems* — Chapter 8 of NFPA 921~~, Chapter 8, Active Fire Protection Systems.~~

(3) *Electricity and electrical systems* — Chapters 9 and 18 of NFPA 921~~, Chapter 9, Electricity and Fire, and Chapter 18, Origin and Determination.~~ (This information is taught in community college courses and in electrician apprenticeships.)

Submitter Information Verification

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Committee Statement

Committee Statement: The TC made these changes to be consistent with adding “utility” in the main body of the document. Additionally, the TC recognizes that a fire investigator should have an understanding of electrical transmission and distribution systems which maybe important relative to wildland investigations.

Response Message: FR-26-NFPA 1033-2025

Public Input No. 30-NFPA 1033-2024 [Section No. D.1.4]

First Revision No. 20-NFPA 1033-2025 [Section No. E.1.1]

E.1.1 NFPA Publications.

National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169-7471.

NFPA 220, *Standard on Types of Building Construction*, ~~2021~~ 2027 edition.

NFPA 400, *Hazardous Materials Code*, ~~2022~~ 2025 edition.

NFPA 470, *Hazardous Materials/Weapons of Mass Destruction (WMD) Standard* ~~*Standards for Responders*~~, ~~2022~~ 2027 edition.

NFPA 704, *Standard System for the Identification of the Hazards of Materials for Emergency Response*, ~~2022~~ 2027 edition.

NFPA 921, *Guide for Fire and Explosion Investigations*, ~~2021~~ 2024 edition.

~~NFPA 1001 , *Standard for Fire Fighter Professional Qualifications* , 2019 edition.~~

NFPA 1000 , *Standard for Fire Service Professional Qualifications Accreditation and Certification Systems* , 2022 edition.

NFPA 1010 , *Standard on Professional Qualifications for Firefighters* , 2024 edition.

~~NFPA 1035 , *Standard on Fire and Life Safety Educator, Public Information Officer, Youth Firesetter Intervention Specialist, and Youth Firesetter Program Manager Professional Qualifications* , 2015 edition.~~

NFPA 1030, *Standard for Professional Qualifications for Fire Prevention Program Positions* , 2024 edition.

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First Revision No. 21-NFPA 1033-2025 [Section No. E.1.2.1]

E.1.2.1 ASTM Publications.

ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959.

ASTM E620, *Standard Practice for Reporting Opinions of Scientific or Technical Experts,* 2018.

ASTM E678, *Standard Practice for Evaluation of Scientific or Technical Data,* 2013 (withdrawn 2022) .

ASTM E860, *Standard Practice for Examining and Preparing Items That Are or May Become Involved in Criminal or Civil Litigation,* ~~2013e2~~ 2022 .

ASTM E1188, *Standard Practice for Collection and Preservation of Information and Physical Items by a Technical Investigator,* ~~2015~~ 2023 .

ASTM E1459, *Standard ~~Guide~~ Practice for Physical Evidence Labeling and Related Documentation*, ~~2013~~ 2024 .

ASTM E1492, *Standard Practice for Receiving, Documenting, Storing, and Retrieving Evidence in a Forensic Science Laboratory*, 2011, reapproved ~~(2017)~~ .

Submitter Information Verification

Committee: PQU-FIV

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Committee Statement

Committee Statement: Updating citations for ASTM documents to their most current edition.

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Public Input No. 39-NFPA 1033-2024 [Section No. E.1.2.1]

First Revision No. 30-NFPA 1033-2025 [Section No. E.1.2.2]

E.1.2.2 IAAI Publications.

International Association of Arson Investigators, ~~16901 Melford Boulevard, Suite 101 Bowie~~ 2331 Rock Spring Road, Forest Hill , MD ~~20715~~ 21050 .

Fire Investigator Health and Safety Best Practices, ~~May 4, 2020~~ 3rd edition, April 13, 2022 .

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E.1.2.4 Other Publications.

Annett, J., and N. E. Stanton, *Task Analysis.* London and New York: Taylor and Francis, 2000.

~~Brannick, M. T., and E. L. Levine, *Job Analysis: Methods, Research, and Applications for Human Resource Management in the New Millennium* . Thousand Oaks, CA: Sage Publications, 2002.~~

Dubois, D. D., *Competency-Based Performance Improvement: A Strategy for Organizational Change.* Amherst, MA: HRD Press, ~~1999~~ 1993 .

Fine, S. A., and S. F. Cronshaw, *Functional Job Analysis: A Foundation for Human Resources Management* (Applied Psychology Series). Mahwah, NJ: Lawrence Erlbaum Associates, 1999.

"Fire Investigation Process Map (Current Practice)," *Organization of Scientific Area Committees (OSAC), National Institute of Standards and Technology (NIST)* , March 2023.

Fire Protection Research Foundation, NFPA, *Fire and Emergency Service Personnel Knowledge and Skills Proficiency* , 2019.

Gupta, K., C. M. Sleezer (editor), and D. F. Russ-Eft (editor), *A Practical Guide to Needs Assessment*, 3rd edition . San Francisco: ~~Jossey-Bass/~~ Pfeiffer, ~~2007~~ 2014 .

Hartley, D. E., *Job Analysis at the Speed of Reality.* Amherst, MA: HRD Press, ~~1999~~ 2014 .

Hodell, C., *ISD from the Ground Up: A No-Nonsense Approach to Instructional Design,* 3rd edition. Alexandria, VA: American Society for Training & Development, 2011.

Jonassen, D. H., M. Tessmer, and W. H. Hannum, *Task Analysis Methods for Instructional Design.* Mahwah, NJ: Lawrence Erlbaum Associates, 1999.

McArdle, G., *Conducting a Needs Analysis (Fifty-Minute Book).* Boston: Crisp Learning, 1998.

McCain, D. V., *Creating Training Courses (When You're Not a Trainer).* Alexandria, VA: American Society for Training & Development, 1999.

Munday, J. W., *Safety at Scenes of Fire and Related Incidents*. London: Fire Protection Association, 1994.

~~Phillips, J. J., *In Action: Performance Analysis and Consulting.* Alexandria, VA: American Society for Training & Development, 2000.~~

Morgeson, F. P., M. T. Brannick, and E. L. Levine, *Job and Work Analysis: Methods, Research, and Applications for Human Resource Management* , 3rd edition. Thousand Oaks, CA: Sage Publications, 2019.

Phillips, J. J., ~~and E. F. Holton III,~~ *In Action: ~~Conducting Needs Assessment~~ Performance Analysis and Consulting* . Alexandria, VA: American Society for Training & Development, ~~1995~~ 2000 .

Robinson, D. G., and J. C. Robinson (Eds.), *Moving from Training to Performance: A Practical Guidebook*. Alexandria, VA: American Society for Training & Development; San Francisco: Berrett-Koehler, 1998.

Schippmann, J. S., *Strategic Job Modeling: Working at the Core of Integrated Human Resources.* Mahwah, NJ: Lawrence Erlbaum Associates, 1999.

Shepherd, A., *Hierarchical Task Analysis.* London and New York: Taylor and Francis, 2000.

Zemke, R., and T. Kramlinger, *Figuring Things Out: A Trainer's Guide to Needs and Task Analysis.* New York: Perseus Books, ~~1993~~ 1982 .

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Committee Statement

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E.3 References for Extracts in Informational Sections. ~~(Reserved)~~

NFPA 1000, *Standard for Fire Service Professional Qualifications Accreditation and Certification Systems*, 2022 edition.

NFPA 1010, *Standard on Professional Qualifications for Firefighters*, 2024 edition.

NFPA 1030, *Standard for Professional Qualifications for Fire Prevention Program Positions*, 2024 edition.

Supplemental Information

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