

MASSACHUSETTS FIRE DISTRICT 14

FIRE INVESTIGATION TEAM

Operation and Management Policy

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Chapter 1 Administration

1.1 Scope

1.1.1

This policy shall specify the minimum requirements relating to the establishment, structure, operation, and management of the Massachusetts Fire District 14 Regional Fire Investigation Team and shall meet the requirements of the National Fire Protection Association (NFPA) 1321 *Standard for Fire Investigation Units*.

1.1.2

In cases where Massachusetts Fire District 14 has existing policies that establish the minimum requirements outlined in NFPA 1321, the Fire Investigation Team shall be considered to have those requirements as part of its unit.

1.1.3

This policy shall not provide requirements relating to fire investigation methodology.

1.1.4

This policy shall not provide requirements relating to the professional qualifications of fire investigators.

1.2 Purpose

This policy shall define the minimum requirements necessary for the effective operation and management of the Massachusetts Fire District 14 Regional Fire Investigation Team and for providing high-quality fire and explosion investigations. This policy is not intended to replace or conflict with existing guidance, such as NFPA 921 and NFPA 1033. Instead, these documents should be utilized to support the Fire Investigation Team's framework established by NFPA 1321.

1.3 Application

This policy shall apply to all members of the Massachusetts Fire District 14 Regional Fire Investigation Team.

Chapter 2 Referenced Publications

2.1 General.

The documents or portions thereof listed in this chapter are referenced within this policy and shall be considered part of the requirements of this document.

2.2 Standard Operating Guidelines.

2.3 NFPA Publications.

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

NFPA 921, Guide for Fire and Explosion Investigations, 2024 Edition

NFPA 1033, *Standard for Professional Qualifications for Fire Investigator*, 2022 Edition.

NFPA 1321, *Standard for Fire Investigation Units*, 2024 Edition.

2.4 Other Publications

Kirk's Fire Investigation, Pearson Education, 8th Edition

Scientific Protocols for Fire Investigation, CRC Press, 3rd Edition

2.4.1 US Government Publications.

US Government Publishing Office, 732 North Capitol Street, NW, Washington, DC 20401- 0001,
www.gpo.gov.

Title 45, Code of Federal Regulations, "Health Insurance Portability and Accountability Act (HIPPA)," 2016.

United States Federal Rules of Evidence, Rule 26, "General provisions governing discovery," as amended through 2011.

2.4.2 Other Publications.

Merriam-Webster's Collegiate Dictionary, 11th edition, Merriam-Webster, Inc., Springfield, MA, 2003

Fire Investigator Principles and Practice, 6th edition, Jones and Bartlett Learning, Burlington, MA, 01803

Massachusetts Vehicle and Traffic Law

Massachusetts Criminal Procedure Law

2.5 References for Extracts in Mandatory Sections.

NFPA 921, *Guide for Fire and Explosion Investigations*, 2024 Edition.

NFPA 1033, *Standard for Professional Qualifications for Fire Investigator*, 2022 Edition.

NFPA 1521, *Standard for Fire Department Safety Officer Professional Qualifications*, 2020 edition.

ASTM E1188 *Standard Practice for Collection and Preservation of Information and Physical Items by a Technical Investigator*

Chapter 3 Definitions

3.1 General.

The Definitions contained in this chapter shall apply to the terms used in this policy. Where items are not defined in this chapter or within another chapter, they shall be defined using their ordinarily accepted meanings within the context in which they are used. *Merriam-Webster's Collegiate Dictionary* shall be the source for the ordinarily accepted meaning.

3.2 Official Definitions

3.2.1 Approved.

Acceptable to the authority having jurisdiction (AHJ). (Massachusetts Fire District 14)

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 (Massachusetts Fire District 14)

3.2.3 Shall.

Indicates a mandatory requirement.

3.2.4 Should.

Indicates a recommendation or that which is advised but not required.

3.3 General Definitions.

3.3.1 Audit.

A systematic, independent, documented process for obtaining records, statements of fact, or other relevant information and assessing them objectively to determine the extent to which specified requirements are fulfilled.

3.3.2 Competency Testing.

A method whereby a newly trained fire investigator demonstrates specialized knowledge, skills, and abilities necessary to conduct examinations prior to performing the actual work

3.3.3 Conflict of Interest.

A conflict between the private interests and official responsibilities of a person in a position of trust.

3.3.4 Cross-Contamination Control Program (CCCP).

Policies and procedures to prevent contamination of work areas, vehicles, evidence, or personnel.

3.3.5 Ethical Principles.

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

3.3.6 Fire Investigation.

The process of determining the origin, cause, and development of a fire or explosion.

3.3.7 Fire Investigation Team.

A public team within the Massachusetts D14 Regional Fire Investigation Team consists of two or more investigators responsible for the origin and cause investigation of fire or explosion incidents.

3.3.8 Fire Investigator (FI1)

An individual who has demonstrated the skills and knowledge necessary to conduct, coordinate, and complete a fire investigation.

3.3.8.1 Fire Investigator 2 (FI2)

A member of the Massachusetts Fire District 14 Regional Investigation Team who has earned the **Fire Investigation Technician (FIT)** designation from the International Association of Arson Investigators (IAAI) and satisfactorily completed their probationary period and competency testing. Members promoted to FI2 are eligible to be Mentors for newly appointed Fire Investigators (FI1).

3.3.8.2 Fire Investigator 3 (FI3)

A member of the Massachusetts Fire District 14 Regional Investigation Team who has been certified to be a fire investigator by the National Association of Fire Investigators (NAFI) or the International Association of Arson Investigators (IAAI) to the minimum level of Certified Fire and Explosion Investigator (**CFEI**) and Certified Fire Investigator (**CFI**), respectively. Members promoted to FI3 are eligible to be Mentors and/or Evaluators for newly appointed Fire Investigators (FI1).

3.3.9 Lead Investigator.

The Massachusetts Fire District 14 Regional Fire Investigation Team member, who will be in charge of a given fire investigation and produce the Fire Investigation Report. The Lead Investigator should be, at a minimum, designated FI2.

3.3.10 Mission Statement.

A written declaration of the Fire Investigation Team's core purpose and focus that normally remains unchanged over time.

3.3.10 Professional Development.

A process that improves and increases the capabilities of personnel operating within the Fire Investigation Team, through access to educational opportunities and practical training both inside and outside the workplace.

3.3.11 Proficiency Testing.

A quality assurance measure used to monitor the performance, quality, and abilities of an individual fire investigator to perform analyses, tasks, and/or entire fire/explosion investigations, and is designed to reflect the knowledge, skills, and training necessary to fulfill the fire investigator's Job Performance Requirements established in NFPA 1033.

3.3.13 Records Management System (RMS).

A set of activities required for systematically controlling the creation, distribution, use, maintenance, and disposition of recorded information maintained as evidence of business activities and transactions.

3.3.14 Report.

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

3.3.15 Scope of Work.

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

Chapter 4 Management System.

4.1 Organization System.

4.1.1 Administrative Requirements.

4.1.1.1 Organizational Structure.

The Massachusetts Fire District 14 Regional Fire Investigation Team was established to provide mutual aid response to communities situated within Fire District 14 that require assistance in determining the origin and cause of fire and explosive incidents.

4.1.1.1.2 Organizational chain of supervision and accountability.

The Fire Investigation Team is under the supervision and control of the Massachusetts Fire District 14 Chiefs Association and reports directly to the Chiefs' Liaison.

4.1.1.2 Scope of Work.

Massachusetts General Law (MGL) Chapter 148, Section 2 requires the fire chief to *"shall investigate the cause and circumstances thereof in order to determine if such fire or explosion was caused by carelessness or design."* The Fire Investigation Team shall respond and assist the fire chief with, or perform for them, a high-quality origin and cause investigation of the fire or explosion.

4.1.1.2.1 Services Provided.

Fire Investigation Team members shall provide services including, but not limited to, inspecting, evaluating, and analyzing the fire scene or evidence of the scene, and conducting comprehensive review of documentation generated during the examination(s), 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 in accordance with NFPA 1033, Section 4.2, 2022 Edition. Additional services include scene documentation to include photographs and scene sketches, witness interviews, evidence collection, and completion of a written report of findings.

4.1.1.2.2 Support and Resources.

A minimum of two (2) members of the Fire Investigation Team should be assigned to each request for investigative assistance. All members of the Team shall be dispatched, and the Massachusetts State Police Fire and Explosion Unit shall be requested in the event of a fire/explosion resulting in a fatality, or for any incident requiring additional assistance.

4.2 Ethical Principles.

4.3 Impartiality.

The compilation of factual data, as well as an analysis of those facts, should be accomplished objectively, truthfully, and without expectation bias, preconception, or prejudice in accordance with NFPA 921 Section 4.1, 2024 Edition.

4.4 Conflict of Interest.

Any member of the Fire Investigation Team shall disqualify themselves from an investigation that involves a member of their family, or a person with whom they are personally or closely involved, either through business or friendship.

4.5 Investigation Information Management.

Any information developed as part of an investigation shall be considered confidential and shall not be released to an unauthorized person by any member of the Fire Investigation Team without the consent of the Team Coordinator.

4.6 Investigation Information Retention.

All investigation information, including final report of findings, field notes, photographs, video, sketches, and/or diagrams, shall be maintained in individual case folders and/or by electronic storage medium(s), secured within the D14 Record Management System.

4.7 Case Information Retention Timeframe.

All investigation information, including final report of findings, field notes, photographs, video, sketches, and/or diagrams, shall be maintained for a timeframe in accordance with Massachusetts D14 Regional Fire Investigation Team document retention policies.

4.8 Procedures for Handling Complaints.

Any complaint lodged against a member of the Fire Investigation Team related to their conduct or investigation shall be directed to the Team Coordinator.

4.9 Process Systems.

4.9.1 Personnel Management.

Massachusetts Fire District 14 does not financially compensate members of the Fire Investigation Team. They respond under a qualified mutual aid agreement (See Appendix G).

4.10 Hiring Procedures.

Vacancies for the position of fire investigator shall be advertised in accordance with Massachusetts Fire District 14 policies and at the direction of the Massachusetts Fire District 14 Chiefs Association.

4.11 Job Description.

See Appendix H.

4.12

People interested in joining the Fire Investigation Team must file an application with a cover letter and a curriculum vitae with the Massachusetts Fire District 14 Regional Fire Investigation Team.

4.13 Minimum Qualifications

Prior to appointment to the Fire Investigation Team, personnel shall meet the following requirements:

1. Be at least 18 years of age.
2. Have a high school diploma or equivalent.
3. Be an active member of a fire or police department operating within Massachusetts Fire District 14.
4. Satisfactory completions of, at minimum, **Principles of Fire Investigation** Multi-program certificate (*CFITrainer.net*) and, preferably, **Fire Investigator 1** (*Massachusetts Fire Academy*) or **R0772 Fire Investigator Essentials** (*National Fire Academy*).

As required by NFPA 1033, section 1.3.2.8.

4.13.1

Qualified applicants shall be interviewed by the members of the Fire Investigation Team Coordinators and the Chiefs' Liaison, who will then make recommendations to the Massachusetts Fire District 14 Chiefs Association.

4.14

All members of the Fire Investigation Team shall be appointed by and serve at the pleasure of the Massachusetts Fire District 14 Regional Fire Investigation Team Coordinators.

4.15 Probationary Period.

Newly appointed members of the Fire Investigation Team will serve a probationary period.

During the probational period, competency testing shall be conducted whereby a newly appointed fire investigator demonstrates specialized knowledge, skills, and abilities necessary to conduct examinations prior to performing the actual work in accordance with section 7.2.8 of this document. Probation concludes upon satisfactory completion of competency testing.

4.16

A new member of the Fire Investigation Team must work with a designated mentor for ten incidents. Mentors will be designated FI2 at a minimum. A list of Mentors will be furnished in the D14 Records Management System and updated regularly.

4.17

Within a reasonable time frame after appointment, the fire investigator must complete **Fire Investigator 1** and **Fire Investigator 2** (*Massachusetts Fire Academy*) or **R0772 Fire Investigation Essentials** (*National Fire Academy*) or **Fundamentals of Fire Investigation (IAAI)** to remain on the team. The reasonableness will be based on the availability of the courses. No member of the Fire Investigation Team shall act as the Lead Investigator until they have completed the above-noted courses and obtained the Fire Investigation Technician (FIT) designation.

4.18 Performance Evaluations.

4.18.1

Performance will be evaluated by members' attendance at training, responses to incidents, and general participation. Consideration will be given to members having unique circumstances preventing their participation. A request for reprieve should be submitted in writing to the Team Coordinator, explaining the circumstances with an estimation of expected duration.

4.18.2 Critique of Investigations.

A general critique of the investigation shall be conducted by the fire Investigation team during regularly scheduled meetings.

4.18.3 Administrative Review.

An administrative review of the Fire Investigation Report shall be conducted to ensure the investigator's work product meets District 14's quality assurance requirements. An administrative reviewer will ensure that District 14's policies have been followed, that all documentation is present in the file, and check for typographical or grammatical errors in accordance with NFPA 921, section 4.6.1, 2024 Edition.

4.18.4 Technical Review.

A technical review is a critique of all aspects of the fire investigator's work product by coworkers, supervisors, or investigators from agencies conducting investigations of the same incident. A technical review shall ensure the report reflects all the aspects of the investigation in accordance with NFPA 921 and shall be an evaluation of the sufficiency of a case record with regard to the tests that were conducted and the observations and conclusions in the report. The technical review shall prove that there is sufficient basis for the scientific conclusions contained in the report and 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 report contains all the required information.

(4) The results are scientifically valid.

In accordance with NFPA 921, section 4.6.2 and 4.6.3, 2024 Edition, and NFPA 1321, section 8.4.2, 2024 Edition.

4.19 Supervision Discipline.

4.19.1

Members of the Fire Investigation Team may be dismissed by the Team Coordinator for cause.

4.19.2

Discipline will be administered by Massachusetts Fire District 14 Fire Regional Investigation Team Coordinators and Chiefs' Liaison with the support of the Massachusetts Fire District 14 Chiefs Association.

4.20 Discrimination and Harassment.

4.20.1

All members of the Fire Investigation Team shall comply with the policies against Discrimination and Harassment in accordance with their respective departments.

4.20.2 Sexual Harassment.

All members of the Fire Investigation Team are expected to conduct themselves professionally. Sexual harassment will not be tolerated.

4.21 Continuing Education.

4.21.1

All members of the Fire Investigation Team shall complete a minimum of twelve (12) hours of tested instruction related to fire investigation annually.

4.21.2

All members of the Fire Investigation Team shall complete and document a minimum of forty (40) hours of continuing education training every five (5) years in accordance with NFPA 1033, section 4.1.7.3, 2022. The requirements of 4.22.2 shall be met by compliance with section 4.22.1 of this document.

4.22 Curriculum Vitae.

All members of the Fire Investigation Team shall maintain an up-to-date curriculum vitae (CV). The CV should be updated after each training class and court appearance. An up-to-date copy of the CV shall be kept on file within the D14 Records Management System.

4.23 Personnel Records.

All members of the Fire Investigation Team shall have an individual personnel file maintained within the D14 Records Management System. Personnel records can include a curriculum vitae, training, education, certifications, exposure reports, and merits.

4.24 Document Control.

4.24.1

The D14 Records Management System shall be the repository for all investigative reports, sketches, interview statements, diagrams, photographs, and field notes created by members of the Fire Investigation Team. Records will be saved as space allows; the oldest files will be deleted when necessary. All records will be reviewed before deletion, and no record in the process of litigation will be deleted.

4.24.2

All investigation information, including investigation reports, sketches, interview statements, diagrams, photographs, and field notes, shall be maintained in individual case folders and/or by electronic storage medium(s) secured within the D14 Records Management System.

4.24.3

Any information developed as part of an investigation shall be considered confidential and shall not be released to an unauthorized person by any member of the Fire Investigation Team without the consent of the Team Coordinator.

4.25 Periodic Reviews of Policies.

Guided documents and management systems shall be reviewed at predefined intervals to make appropriate changes and ensure continued effectiveness.

4.25.1

The Team Coordinator will conduct monthly meetings with the members of the Fire Investigation Team to review the overall results being obtained, flexibility of the policies and provide any suggestions for improvement.

4.25.2

The D14 Chiefs Association will be provided with an annual report of the Fire Investigation Team's yearly activity.

4.26

Any member of the Fire Investigation Team who is medically unfit for duty shall not respond to an investigation.

4.27 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.

4.27.1 Safety and Health Training and Education.

All members of the Fire Investigation Team 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.

4.27.2 Site Safety Assessment.

All scenes shall undergo a site safety assessment, and local and national safety standards shall be followed in accordance with NFPA 1033 Section 4.1.3, 2022 Edition.

4.27.4

The site safety assessment shall be documented in writing in the “site safety survey” portion of the investigator’s workbook.

4.28 Reserved for Future Inclusion.

4.29 Purchasing.

All supplies, equipment, and services purchased for the Fire Investigation Team shall be in accordance with Massachusetts Fire District 14 policies.

4.30 Facilities and Equipment.

The MA Fire District 14 Regional Fire Investigation Team does not own or operate facilities. Team Coordinators shall direct the procurement of facilities and equipment with guidance and permission from the Massachusetts Fire District 14 Chiefs Association.

4.31 Workload Analysis.

The Team Coordinator shall develop and maintain a system as a means of measuring the effectiveness of programs, procedures, performance outcomes, and trends for each of the following:

- (1) Case status
- (2) Resource evaluation
- (3) Benchmarking
- (4) Time and productivity of personnel

4.31.1 Monthly Review.

Members of the Fire Investigation Team shall meet regularly to review responses and rules and regulations.

4.31.2 Annual Reporting.

A report of the Fire Investigation Team's effectiveness of programs and procedures, performance outcomes, and trends for the year shall be completed annually.

4.32 Fire Investigation Forms.

All fire and explosion scenes shall be documented using forms indicated in the context of this policy and those found in the Appendix of this document.

4.32.1

The Lead Investigator for the incident shall ensure the completion of the Fire Investigation Workbook before leaving the scene. The Workbook shall become part of the permanent investigation case file.

4.33 Management Systems.

4.33.1 Budget.

The Fire Investigation Team's budget is derived through the budget process of the Massachusetts Fire District 14.

4.34 Strategic Planning.

Fire Investigation Team Coordinators shall review the mission, goals, objectives, and effectiveness of the Unit. That review shall occur on an annual basis as a minimum.

4.35 Quality Assurance – Management and Internal Reviews.

Fire Investigation Team Coordinators shall review all guiding documents to make appropriate changes and/or updates to ensure the team's effectiveness and ability to conduct investigations. That review shall occur on an annual basis at a minimum, but can be conducted more frequently if necessary.

Chapter 5 Outside Resources, Facilities, and Equipment.

5.1 Planning the Investigation.

Regardless of the number of people involved, the need to preplan investigations remains constant. Considerations for determining the number of investigators assigned include budgetary constraints,

available staffing, complexity, loss of life, and the size of the scene to be investigated. NFPA 921 section 15.1.1, 2024 Edition.

5.1.1 Staffing

Two investigators should respond to each incident when possible.

5.1.2 Fatal Fires

An “all-hands fire” shall be enacted, and the Massachusetts State Police Fire and Explosion Unit shall be notified for any fire scene fatality or incidents causing serious injury.

5.2 Outside Resources.

During the planning of an investigation, specialized personnel may be needed to provide assistance. There are many facets to a fire investigation. If the Fire Investigation Team member is unfamiliar with a particular aspect, or the event exceeds the Fire Investigation Team’s capabilities or resources, they should never hesitate to call in another investigative expert who has more knowledge or experience in a particular aspect of the investigation. NFPA 921 section 15.5.1, 2024 Edition. Examples of when additional resources should be considered include, but are not limited to:

- (1) Severe injuries/fatalities to civilians
- (2) Severe injuries or line-of-duty death of an emergency responder
- (3) Evidence of another crime not directly related to the origin and cause of the fire or explosion
- (4) Significant financial fire damage
- (5) Political, religious, high-profile location or person(s)

5.2.1 Multi-Agency Investigation.

Some investigations are complex due to their size, scope, or duration. Complex investigations include fire or explosion incidents resulting in serious injury/death, indications of foul play, or the type and use of the vehicle or structure involved, and will require investigation by Multiple agencies. (*NFPA 921 Chapter 15, 2024 Edition*).

5.2.2

Multi-agency investigations may include representatives from law enforcement, coroner, district attorney, local, state, or federal government agencies, and the military. In some cases, there are legal

and procedural requirements for notifying authorities. It is the responsibility of the Fire Investigation Team members to understand these requirements prior to beginning their investigation. (*NFPA 921, Section 24.5.3), 2024 Edition.*

5.2.3

The Fire Investigation Team will attempt to identify special personnel and resources in advance so that the expert's competencies are matched to the specific investigation needs, conflicts of interest are avoided, financial expenditures are justified, and utilization clearly furthers the investigation in accordance with NFPA 1033 Section 4.6.3, 2022 Edition and NFPA 921 Section Chapter 15, 2024 Edition.

5.2.4

Resources the Fire Investigation Team needs to consider include, but are not limited to;

(1) Governmental agencies

- a. Local fire department
- b. Massachusetts District Attorney
- c. Medical Examiner
- d. Local Police Departments, Massachusetts State Police
- e. Massachusetts State Police Forensic Investigation Center (State Police Lab)
- f. Federal Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF)
- g. Town Supervisors
- h. Mayors
- i. County and local Code Enforcement Officers
- j. City or town Highway Department, Department of Transportation (DOT)
- k. United States Postal Service

(2) Private companies

- a. Regional power company
- b. Regional telephone and cable television service provider
- c. Involved insurance companies
- d. Heavy equipment companies

In accordance with NFPA 921, Chapter 15, 2024 Edition.

5.2.5 Team Investigation Concept.

Multi-agency investigations should be conducted as a joint team effort. The Fire Investigation Team's Lead Investigator should establish a team. A team meeting should take place prior to the on-scene investigation. The Lead Investigator should address questions of jurisdictional boundaries and assign specific responsibilities. All personnel should be advised of the condition of the scene and the safety precautions required. *(NFPA 921 Section 24.5.3) 2024 Edition.*

5.2.6

All team members and parties should be prepared to collaborate to ensure that all data and evidence are documented and recovered. *(NFPA 921 Section 24.5.3) 2024 Edition.*

5.2.7 Sequential Operations.

Consideration must be given to establishing a prioritized sequence of investigative actions by the Multiple agencies involved to prevent any one agency's responsibilities from interfering with or preventing another agency's ability to address their specific responsibilities. The fire investigator should establish specific goals for each operational time period.

5.3 Facilities,

5.3.1

NFPA 1321 requires the Fire Investigation Team to develop a written policy for the collection, intake, storage, security, processing, and evaluation of all evidence.

5.3.2

The Massachusetts Fire District 14 Regional Fire Investigation Team does not have or operate a facility designed for or capable of storing, processing, or evaluating evidence.

5.3.3

Members of the Fire Investigation Team will be responsible for collecting evidence. All evidence shall be turned over to the Law Enforcement Agency having jurisdiction. That agency shall be responsible for the storage, preservation, and security of the evidence.

5.4 Physical Evidence Collection.

5.4.1

During the course of any fire investigation, the fire investigators are likely to be responsible for locating, identifying, collecting, and arranging for the testing of physical evidence. *NFPA 921 section 17.1, 2024 Edition*

5.4.2

Physical evidence is any physical or tangible item that tends to prove or disprove a particular fact or issue. Physical evidence at the fire scene may be relevant to the issues of the origin, cause, spread, or responsibility for the fire. *NFPA 921 section 17.2.1, 2024 Edition.*

5.4.3

The decision on what physical evidence to collect at the incident scene for submission to a laboratory for examination or testing rests with the fire investigator. This decision may be based on a variety of considerations, such as the scope of the investigation, legal requirements, or prohibition(s). *NFPA 921 section 17.2.2, 2024 Edition.*

5.4.4

Evidence at the fire scene should be considered not only in a criminal context, such as in traditional forensic evidence (e.g., weapons, bodily fluids, footprints), but also should not be limited to arson-related evidence, items, or artifacts, such as incendiary devices or containers. Potential evidence at the fire scene and surrounding areas can include the physical structure or vehicle, the contents, the artifacts, and any materials ignited or any material on which fire patterns appear, as well as electronic evidence. *NFPA 921 section 17.3.1.3, 2024 Edition.*

5.4.5 Role and Responsibilities of the Fire Investigation Team Member.

If the firefighters or law enforcement agency have not taken the preliminary steps to preserve or protect the fire scene, the Fire Investigation Team Member shall assume the responsibility to do so or have it done in accordance with NFPA 921, section 17.3.6, 2024 Edition, and NFPA 1033, section 4.2.1, 2022 Edition.

5.4.5.1

The fire scene shall be secured with marking devices, sufficient personnel (e.g., law enforcement, firefighters, fire police), and special tools and equipment (e.g. fire scene tape, barricades), 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 in accordance with NFPA 1033, section 4.2.1, 2022 Edition.

5.4.6 Legal Considerations.

All members of the Fire Investigation Team are bound by constitutional limitations under search and seizure law. Under the Fourth Amendment of the U.S. Constitution and parallel provisions under MA State Law, every entry onto a fire scene must be justified.

5.4.6.1

All members of the Fire Investigation Team shall determine that they have the legal authority and right of entry to be on the fire scene prior to the commencement of the fire investigation or collection of evidence. *NFPA 921 sections 12.3.1 and 12.3.2, 2024 Edition.*

5.4.6.2

There are four general circumstances that justify a search and seizure to conduct a fire investigation:

- (1) Exigent Circumstances
- (2) A criminal search warrant
- (3) An administrative search warrant
- (4) Consent

NFPA 921 sections 12.3.3 through 12.3.3.4, 2024 Edition

5.4.6.3 Exigent Circumstance.

It is recognized that the fire department has the legal authority to enter a property to control and extinguish a hostile fire. It has also been held that the fire department has an obligation to determine the origin and cause of the fire in the interest of the public good and general welfare. *NFPA 921, section 12.3.3.2.1, 2024 Edition, United States Supreme Court decision (Michigan v. Tyler, 436 U.S. 499).*

5.4.6.4 Search Warrants.

If a fire investigation is to be conducted under the authority of a Criminal Search Warrant or Administrative Search Warrant, the lead fire investigator shall ensure that the “Members of the Massachusetts Fire District 14 Regional Fire Investigation Team” are listed on the warrant prior to commencement of any portion of the investigation and collection of evidence. The Lead Investigator

shall also ensure that a copy of the warrant is included in the fire investigation case folder in the Records Management System.

5.4.6.5 Consent Search.

If a fire investigation is to be conducted under the authority of the owner/occupant's consent, the lead fire investigator shall ensure that the consent is documented in writing using the "Consent to Search" form found in the Appendices of this document.

5.4.6.6

Strict requirements apply when obtaining lawful consent to search. Consent must be obtained from the proper party:

- (1) Property that has been leased or rented to an individual requires consent from the tenant or occupant rather than the owner. The owner can only give consent to a search of the structure's common areas.
- (2) In the case of roommates, one roommate cannot authorize a search of the other roommate's private areas, such as a separate bedroom or personal closet.
- (3) The person who gives consent may limit the scope of the search and can legally revoke consent at any time.

5.4.7 Legal Limitation.

Members of the Fire Investigation Team are considered "Public Fire Investigators," and as such, their authority to collect, seize, or remove evidence from a fire scene is limited to arson-related evidence, items, or artifacts, such as incendiary devices, containers, and ignitable liquid residue.

5.4.7.1

Physical evidence identified at the fire scene by members of the Fire Investigation Team relevant to the issues of the origin, cause, spread, or responsibility for an accidental fire shall be left in place for examination, collection, and testing by insurance representatives, manufacturer's representatives, owners, and occupants. *NFPA 921, section 17.3.1.3, 2024 Edition, NFPA 1033, section A.4.4.2, 2022 Edition.*

5.4.8 Evidence Collection Procedures.

If a determination is made to collect physical evidence from the fire scene, the Lead Investigator shall request a representative from the law enforcement agency having jurisdiction to the scene to take

custody of the sample(s). The Lead Fire Investigator shall obtain a receipt that documents the date and time the evidence was turned over, as well as the name of the law enforcement officer and agency.

5.4.8.1

The Lead Investigator shall ensure that any physical evidence is collected by a certified fire investigator or team member with appropriate qualifications. Traditional “forensic evidence” such as finger/hand prints, blood, DNA, footwear impressions, tool marks, and questioned documents should be collected by a law enforcement officer or an Evidence Collection Technician.

5.4.8.2 Documentation of Evidence.

Physical evidence shall be thoroughly documented prior to being moved or collected. This documentation should be accomplished through:

- (1) Field notes and scene sketches with accurate measurements recorded in contemporaneous notes
- (2) Photographs
- (3) Evidence log.

NFPA 921, section 17.5.2, 2024 Edition.

5.4.8.3 Collection Methods.

The method of collection to be used is determined by factors including:

- (1) Physical state of the evidence (e.g., solid, liquid, vapor)
- (2) Physical Characteristics (e.g., size, shape, weight)
- (3) Fragility – how easily the sample may be broken, damaged, or altered
- (4) Volatility – how easily the physical evidence may evaporate

5.4.8.3.1 Evidence Containers

The selection of an appropriate evidence container also depends on the physical state, physical characteristics, fragility, and volatility. The Lead Investigator shall ensure that the evidence container will preserve the integrity of the evidence and prevent any change or contamination of the evidence. *NFPA 921, section 17.6.1.1, 2024 Edition.*

5.4.8.3.2

Evidence containers used for fire debris evidence may include new, clean, unused bags specifically designed for fire debris evidence, glass containers, or metal cans.

5.4.9 Collection Tools and Equipment.

Any member of the Fire Investigation Team involved in the collection of physical evidence shall don a pair of disposable medical examination-type gloves prior to handling the evidence.

5.4.9.1

The investigator collecting evidence shall change the disposable gloves and don a new pair between the collection of each individual evidence sample to prevent cross-contamination. The gloves shall be disposed of properly and not placed inside the evidence container with the evidence sample.

5.4.9.2

Any hand or power tools used by members of the Fire Investigation Team for evidence collection shall be washed with soap and water before and after each individual evidence sample is collected to prevent cross-contamination.

5.4.9.3

Members of the Fire Investigation Team should use hand-operated, electric, or battery-powered tools to collect evidence samples. Gasoline or diesel-fueled equipment should be avoided.

5.4.9.3.1

If gasoline—or diesel-fueled equipment cannot be avoided, the lead fire investigator shall collect a liquid sample of the fuel and any lubricating oils used by the equipment for submission to the laboratory as a comparison sample.

5.4.10 Collection.

When collecting evidence for the purpose of identifying the presence of ignitable liquid or accelerant residue, the investigator shall separate unlike materials into separate evidence containers, such as:

(1) A suspect sample of floor covering, such as carpet, carpet pad, and flooring, should be separated into three containers rather than submitted together in one container.

(2) A suspect sample of gypsum/sheetrock and wooden trim, e.g., the gypsum and trim should be separated into two containers rather than submitted together in one container.

5.4.10.1 Comparison Samples.

When collecting evidence to identify the presence of ignitable liquid or accelerant residue, the investigator shall, whenever possible, obtain a comparison sample of similar material collected as the suspect sample. *NFPA 921, section 17.5.4.6.1, 2024 Edition.*

5.4.10.2

The comparison sample should be collected from an area that the investigator believes is free of such ignitable liquid or accelerant, or in an area that has not been involved in fire.

5.4.11 Identification of Physical Evidence.

All evidence shall be marked or labeled for identification at the time of collection, as required by ASTM E1188 *Standard Practice for Collection and Preservation of Information and Physical Items by a Technical Investigator*, and NFPA 921, section 17.8, 2024 Edition.

5.5.11.1

Identification of Evidence includes the name of the investigator collecting the physical evidence, the date and time of collection, an identification name or number, the case number, and where the physical evidence was located. This can be accomplished directly on the container or on a preprinted label securely attached to the container. *NFPA 921 section 17.8.1, 2024 Edition.*

5.4.11.2 Evidence Log

The lead fire investigator shall ensure that an "Evidence Log" form is completed. *NFPA 921, section 17.8.3, 2024 Edition.*

5.4.11.3 Evidence Tape.

Once the physical evidence is secured in the container and the top is affixed to it or the bag is sealed, a piece of "evidence" tape shall be affixed across the top of the container or seal. The tape shall extend across the top of the cover and over a portion of the sides to demonstrate that once sealed, the container was not reopened.

5.4.12 Evidence Security and Transfer.

The fire investigator responsible for collecting physical evidence shall maintain custody of the evidence containers to prevent unauthorized access and/or tampering. Consideration should be given to securing evidence in a locked vehicle with limited/restricted access.

5.4.12.1

Once all physical evidence has been secured and identified, and the evidence log is completed, the custody of the item(s) should be transferred to a representative of the law enforcement agency for submission to the New York State Police Forensic Investigation Center for analysis. The date, time, and name of the person taking custody of the item(s) shall be documented in writing.

5.4.13 Evidence Analysis.

The investigator transferring the physical evidence to law enforcement should advise them that the Fire Investigation Team is requesting the item(s) be analyzed for the presence of ignitable liquids.

Chapter 6

Health and Safety.

6.1 The Fire Investigation Team shall have a health and safety program. *NFPA 1321, 2024 Edition*

6.2 A health and safety program is an essential element for operating the Fire Investigation Team and safeguarding members.

6.2.1 The members of the Fire Investigation Team shall comply with the requirements set forth in Chapter 13 of NFPA 921, 2024 Edition, sections 4.2.2 and 4.2.3 of NFPA 1033, 2022 Edition.

6.2.2 Personal Protective Equipment.

Each member of the Fire Investigation Team shall be issued personal safety equipment, including:

- (1) Eye protection
- (2) Gloves
- (3) Helmet
- (4) Respiratory protection (type depending on exposure)

NFPA 921, section 15.4.2, 2024 Edition

6.2.3 Tools and Equipment.

Additional specialized tools and equipment might be needed based on the hazards present and the evaluation of the work conditions. Tools and equipment will be provided as needed by Massachusetts Fire District 14. Members of the Fire Investigation Team should know where to obtain tools and equipment when needed. *NFPA 921, section 15.4.1, 2024 Edition.*

6.2.4

Members of the Fire Investigation Team shall be trained in the proper donning, doffing, limitations, use, and documentation of such equipment prior to its use by the member in compliance with NFPA 921, section 13.7.1.1, 2024 Edition.

6.2.5 Respiratory Protection.

Appropriate respiratory protection is necessary at most fire scenes. Members of the Fire Investigation Team should utilize an appropriate level of protection. Members should recognize that air-purifying respirators should not be utilized in oxygen-deficient atmospheres (below 19.5 %) or in Immediately Dangerous to Life and Health (IDLH) atmospheres. *NFPA 921, section 13.7.2.7, 2024 Edition.*

6.2.6 Fit Testing.

Fire Investigation Team members shall receive fit testing, medical clearance, and be trained in the proper donning, doffing, limitations, use, and documentation of such equipment prior to use of respiratory equipment.

6.2.7

All members of the Fire Investigation Team are expected to comply with all OSHA regulations, standards, and practices applicable to the tasks and activities conducted at fire and explosion scenes.

6.2.8

The Lead Investigator shall be responsible for ensuring all Fire Investigation Team members are using the proper level of personal protection equipment throughout the investigation.

6.2.9 Reporting of Injuries or Illnesses.

Any member of the Fire Investigation Team who becomes injured or ill on the job must notify their supervisor and the Team Coordinator immediately and seek treatment.

6.2.10 Baseline Medical Screening:

Pre-employment physicals are not required for most employees. However, employees who are required to have an annual physical pursuant to laws, rules, and regulations governing the department for which they work will be advised by their department head.

6.2.10.1 Scene Safety Plan(s).

Members of the Fire Investigation Team are required to develop safety plans as part of the investigative process. The complexity of the plan and the topics included will vary depending on the hazards and risks identified on the scene in accordance with NFPA 921, section 13.4, 2024 Edition, and NFPA 1321, section 6.3.5, 2024 Edition.

6.2.10.2 Control of Safety Hazards.

Members of the Fire Investigation Team shall utilize a systematic process of hazard identification, evaluation, prevention, and control of potential hazards at a fire or explosion scene, including environmental conditions, weather, and structural integrity. The investigator can utilize several methodologies that include elimination, substitution, engineering controls, and administrative controls for the selection of personal protective equipment (PPE). Members shall be trained in hazard and risk assessment of a scene prior to determination of applicable PPE and other health and safety issues to include interpretation of safety data sheets and interviewing parties most familiar with potentially hazardous sites in accordance with NFPA 1033, sections 4.2.2, 4.2.3, 4.2.9, and 4.5.2, 2022 Edition.

6.2.10.3 Documentation of Personnel, Equipment, Evidence, Vehicles.

Members of the Fire Investigation Team shall act responsibly with respect to the disposal and transport of used PPE in a manner that will not contaminate vehicles, tools, or clothing worn by members after the scene is cleared and to prevent cross-contamination of personnel.

6.2.10.4 Exposure Reporting.

Any member of the Fire Investigation Team who has been exposed to a chemical, biological, or radiological hazard shall notify their supervisor immediately and seek treatment. An exposure report shall also be completed, with a copy placed in the investigator's personal file.

6.2.10.5 Vehicle Use.

Members of the Fire Investigation Team operating a department-owned or privately-owned vehicle on professional business shall operate in a safe, prudent manner, in accordance with all vehicle and traffic laws. All operators of vehicles on department business must possess a valid driver's license and must

comply with any restrictions imposed by their respective department. Members of the Fire Investigation Team shall be familiar with the provisions of Chapter 90 of the Massachusetts Vehicle and Traffic Law (Emergency Vehicle Operation).

Chapter 7 Education, Training, and Certification.

7.1

The Fire Investigation Team shall have training and continuing education programs and policies to ensure that personnel are trained and that competency is maintained so that they can effectively, efficiently, and safely execute all responsibilities. The Fire Investigation Team Coordinators shall coordinate training, maintain training records, and assist in evaluating the effectiveness of the program.

7.2 Training and continuing education

7.2.1

The Fire Investigation Team consists of individual investigators trained in fire origin and cause determination.

7.2.2

All members of the Fire Investigation Team shall comply with all of the sections of NFPA 1033 that apply to Public Fire Investigators.

7.2.3

Within a reasonable time frame after appointment, the fire investigator must complete **Fire Investigator 1** and **Fire Investigator 2** (*Massachusetts Fire Academy*) or **R0772 Fire Investigation Essentials** (*National Fire Academy*) or **Fundamentals of Fire Investigation** (IAAI) to remain on the team. The reasonableness will be based on the availability of the courses. ***No member of the Fire Investigation Team shall act as the Lead Investigator until they have completed the above-noted courses.***

7.2.4

Fire investigators are encouraged to pursue regular continuing education. This can be accomplished by taking courses from the International Association of Arson Investigators (IAAI), Massachusetts Fire Academy, National Fire Academy, or any outside agency related to fire investigation in accordance with

NFPA 1033, section 4.1.7.2, 2022 Edition. The Massachusetts Fire District 14 Regional Investigation Team will strive to provide regular training to its membership in accordance with NFPA 1033.

7.2.5

In order to successfully complete the tasks identified in the Job Performance Requirements of NFPA 1033 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:

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

(2) Fire Investigation:

- (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:

- (a) Hazard recognition, evaluation, and basic mitigation procedures
- (b) Hazardous materials
- (c) Safety regulations
- (4) Building Systems:
 - (a) Types of construction
 - (b) Fire protection systems
 - (c) Electricity and electrical systems
 - (d) Fuel gas systems

7.2.6

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. *NFPA 1033, section 4.1.7.2, 2022 Edition.*

7.2.7

The fire investigator shall complete and document a minimum of 40 hours of continuing education training every five years by attending formal education courses, workshops, and seminars as required by NFPA 1033, section 4.1.7.3, 2022 Edition.

7.2.8 NFPA 1321 Competency Testing.

Competency testing shall be conducted during the period of a newly appointed fire investigator so that the investigator demonstrates specialized knowledge, skills, and abilities necessary to conduct examinations prior to performing the actual work.

7.2.9 NFPA 1321 Proficiency Testing.

NFPA 1321, Chapter 7 requires an annual evaluation of the proficiency of the Fire Investigation Team personnel designed to reflect the knowledge, skills, and training necessary to fulfill the fire investigator's Job Performance Requirements established in NFPA 1033. The annual proficiency testing shall be documented in writing and kept on file in each investigator's personal file and must be produced during the discovery phase in legal hearings.

7.3 Curriculum Vitae.

Each member of the Fire Investigation Team shall establish and maintain an up-to-date curriculum vitae (CV) that documents the completion of continuing education requirements.

7.3.1 CV Requirements

Each member of the MA Fire District 14 Fire Investigation Team shall establish and maintain an up-to-date curriculum vitae, using a standardized format established by the MA Fire District 14 Regional Fire Investigation Team, which shall include:

- (1) Investigator's name
- (2) Investigators' contact phone number
- (3) Investigator's address (*should be a Department address, not a personal e-mail address*)

- (4) Education level – Highest level of education listing from most recent (*College, Trade School, High School, etc.*)
- (5) Fire Investigation Experience, training related to requirements listed in NFPA 1033 4.1.7 (1-4)
- (6) Professional presentations given by the Investigator
- (7) Expert Testimony – Any time(s) the investigator was recognized and allowed to testify as an “expert” in a court of Law or deposition, including the year, Court, case name, or docket number
- (8) Certifications held – State, National, IAAI, NAFI, etc.
- (9) Annual refresher training, including formal education courses, workshops, in-person or online seminars, and/or through professional publications, journals, and treatises.
- (10) The investigator shall update their CV as a minimum every 6 months and after every training course, or after testifying in a legal matter (*courtroom, grand jury, deposition*)
- (11) An up-to-date CV for each member of the fire investigation team shall be kept on file with the MA D14 Regional Fire Investigation Coordinator and made available in compliance with the Massachusetts State Discovery Laws.

7.4 Certification.

All Investigators of the Fire Investigation Team should strive to obtain and maintain a Fire Investigator certification.

7.4.1

Investigators may, and are encouraged to obtain certification from authorities such as:

- (1) National Board on Fire Science Qualifications (Pro Board)
- (2) International Association of Arson Investigators (IAAI)
- (3) National Association of Fire Investigators (NAFI)

Chapter 8 Documentation and Reports.

8.1 Introduction.

The goal of documenting any fire or explosion investigations is to make an accurate recording of the investigation. Thorough and accurate documentation of the investigations is critical because compilation of factual data is necessary to support and verify investigative opinions and conclusions. *NFPA 921, sections 16.1.1, and 16.1.2, 2024 Edition.*

8.2 Documentation.

All members of the Fire Investigation Team shall document each fire or explosion scene in accordance with the requirements of NFPA 1033, section 4.3 – 4.3.3, 2022 Edition. Duties shall include diagramming the scene, photographing, and taking field notes to be used to document scene findings or to prepare a written report. The Lead Investigator for the incident shall be responsible for completing the Fire Investigation report.

8.2.1 Diagram/Sketch.

A hand-drawn sketch shall be completed so that the scene is accurately represented and evidence, pertinent contents, significant patterns, and area(s) or points(s) of origin are identified. *NFPA 1033, section 4.3.1, 2022 Edition, NFPA 921, section 16.4.1.1, 2024 edition.*

8.2.2 Photographs

The scene shall be photographed so that it is accurately depicted, and the photographs support the scene findings. The photo log portion shall be completed to identify each photograph taken. *NFPA 921, section 16.2, 2024 Edition and NFPA 1033 sections 4.3 – 4.3.2, 2022 Edition.*

8.2.2.1 Photograph Retention.

No member of the Fire Investigation Team shall delete any photograph taken during the investigation for any reason. In the event a photographic image is created accidentally (the photographer inadvertently depresses the Shutter button), the image shall be retained and identified on the Photo Log as “An unintentional photo”.

8.2.2.2 Provided Documentation.

Any documented information provided by someone other than the Fire Investigation Team members, such as photographs, video, or written documents, shall be placed in the permanent case file along with the name and contact information of the person providing the documentation, the date it was received, and the Fire Investigation Unit member who received it.

8.2.3 Investigative Notes.

Construct investigative notes and interview information so that the notes are accurate, provide further documentation of the scene, and represent complete documentation of the scene findings. The Lead Investigator shall ensure that all of the appropriate notes are recorded prior to leaving the scene. *NFPA 1033, section 4.3.3, 2022 Edition and NFPA 921, Chapter 16, 2024 Edition.*

8.2.3.1 Other Field Notes.

Any member of the Fire Investigation Team who makes any written or recorded notes on any medium other than the Fire Investigation Workbook shall date and initial that document and turn it over to the Lead Investigator prior to leaving the scene. The Lead Investigator shall then be responsible for ensuring the document(s) become part of the permanent case file.

8.3 Security and Retention.

All investigation information, including final report of findings, field notes, photographs, video, sketches, and/or diagrams, shall be maintained in individual case folders and/or by electronic storage medium(s), secured within the D14 filing system.

8.3.1 Case Information Retention Time Frame.

All investigation information, including final report of findings, field notes, photographs, video, sketches, and/or diagrams, shall be maintained for a timeframe in accordance with Massachusetts Fire District 14 Regional Investigation Team document retention policies.

8.4 Reports.

(1) The Fire Investigation Team member designated as the Lead Investigator for the incident shall complete a written report. That report shall accurately reflect the facts, data, and scientific principles on which the investigator(s) relied; clearly identifies and expresses the investigator's opinions and conclusions; and contains the reasoning by which each opinion or conclusion was reached in accordance with section 4.7.1 of NFPA 1033, 2022 Edition, and sections 16.5.1 – 16.5.6, 18.1.2, 19.1.1, 19.4.4.2.1, and 19.7.1 of NFPA 921, 2024 Edition.

(2) Upon completion of the fire/explosion scene examination when the lead agency is someone other than the MA Fire District 14 Regional Fire Investigation Team, i.e. an investigation turned over to the Massachusetts State Police Fire and Explosion Unit, the lead Fire Investigation Team member shall complete a short summary report that accurately reflects the fact that an agency outside of the Massachusetts Fire District 14 Regional Fire Investigation Team was designated as the lead agency and any information pertaining to the origin and cause of the incident is referred to that agency's written report.

8.4.1 Report Format.

Members of the Fire Investigation Team authoring written reports shall use a standardized format established and approved by the Fire Coordinator, as attached to this document in Appendix A.

8.4.2 Report Author.

Members of the Fire Investigation Team authoring written reports should be a Certified Fire Investigator with minimum qualifications outlined in sections 4.2 – 4.7 of NFPA 1033, 2022 Edition. If the Lead Investigator does not hold recognized certification, their report should be technically reviewed by an investigator holding qualifications.

8.5 Report Reviews.

A review of the fire investigator's work product (e.g., reports, documentation, notes, diagrams, photos, etc.) by other people shall be completed prior to finalization and release in accordance with NFPA 921, section 4.6, 2024 Edition, and NFPA 1321 section 8.4, 2024 Edition.

8.5.1 Administrative Review.

An administrative review shall be conducted to determine whether the investigator's work product meets District 14's quality assurance requirements. The administrative reviewer will determine whether all steps required by the district's policies have been followed and whether all the appropriate documentation is present in the file, and may check for typographical or grammatical errors. An administrative reviewer may not necessarily possess all the knowledge, skills, and abilities of a fire investigator in accordance with NFPA 921 sections 4.6.1 and 4.6.1.1, 2024 Edition.

8.5.2 Technical Review.

A technical review is a critique of all aspects of the fire investigator's work product by coworkers, supervisors, or investigators from agencies conducting investigations of the same incident. A technical review shall ensure the report reflects all the aspects of the investigation in accordance with NFPA 1033 and shall be an evaluation of the sufficiency of a case record with regard to the tests that were conducted and the observations and conclusions in the report. The technical review shall prove that there is sufficient basis for the scientific conclusions contained in the report and shall ensure, at a minimum, the following:

- (5) The results, opinions, and interpretations are accurate, properly qualified, and supported by the case records.
- (6) The applicable policies and procedures were used.
- (7) The written report contains all the required information.
- (8) The results are scientifically valid.

In accordance with NFPA 921, section 4.6.2 and 4.6.3, 2024 Edition, and NFPA 1321, section 8.4.2, 2024 Edition.

8.5.2.1 Technical Reviewer.

The person performing the technical review shall be qualified as a fire investigator and technically competent in the areas specific to the scenario. In accordance with NFPA 1321, section XXXX, 2024 Edition, the person shall not be the author(s) of the report.

8.5.2.2 Resolution of Disagreements.

Disagreements between the investigator/report author and the technical reviewer shall be resolved through discussion and additional research prior to finalization of the report in accordance with NFPA 1321, section 8.4.2.6, 2024 Edition.

8.5.3 Scientific Method and Amended Reports.

Members of the Fire Investigation Team are reminded that the Scientific Method *“requires that all data collected be analyzed.”* Therefore, if additional information(data) or a hypothesis becomes available or known to the investigator after a report has been finalized, the investigators are required to analyze that information and test the hypothesis. If the new data results in a change in the investigator’s original findings, an “Amended” report shall be authored documenting those findings.

8.5.4 Reports Related to a Criminal Investigation.

Reports generated by members of the Fire Investigation Team related to a criminal investigation (i.e., an Incendiary fire or intentional explosion) shall be submitted to the District Attorney’s Office by the Fire Coordinator or his/her designee, PRIOR to finalization and release of the report to ensure the report meets the necessary requirements for litigation.

Appendix

Appendix A:

Structure Report Form

Appendix A1:

Vehicle Report Form

Appendix B:

Consent Form

Appendix C:

Evidence Placarding

Appendix D:

Evidence Collection Documents

Appendix E:

Investigation Workbook

Appendix F:

Training Task Book

Appendix G:

Mutual Aid Agreement

Appendix H:

Job Description

Appendix I:

CV Template

Appendix J:

Contact List

MA FIRE DISTRICT 14 FIRE INVESTIGATION TEAM

STRUCTURE REPORT

Incident Number: 08102025 (2day,2month,4year)

Street Name

Town, ST 12345

Date of Examination: DATE

Lead Investigator: First, Last, Credentials

Summary

On DATE, an examination was made on the hose at the above-referenced location. The purpose of the exam was to determine the origin and cause of a fire that occurred on DATE. In summary, based on what is known at this time, I have the following opinion(s):

This summary is meant to convey the information the reader needs to understand the incident. Type a paragraph or two describing where the fire originated and identify any evidence available and/or witness statements which identify the factors/parties that contributed to the most plausible fire cause, if they exist. If this report will conclusively define the cause of the fire, this section should contain the origin and cause of the fire and the witness statement(s) that support it.

Example: The fire originated on the cooktop of the Whirlpool electric range on the north side of the kitchen. The burned remains of an air fryer were observed on the front left range heating element. The tenants, Ms. Denise Reed, her son, and her grandson, have occupied the house for approximately three years. They said they did not use the range for at least two days prior to the fire. The tenants left the house at about 8:00 a.m. on August 21, 2023, and the fire was discovered by a neighbor at approximately 8:40 a.m.

Delete all this green text before sending your report to peer review.

August 17, 2025

First Last (Author)
Fire Department

Property Owner
Street
Town, Massachusetts Zip Code

Incident Number: 08102025
Date of Examination: DATE

Summary of Conclusions

In summary, based on what is known at this time, I am of the opinion that:

- The origin of the fire is INSERT.
- The first fuel ignited is INSERT.
- The ignition source is INSERT .
- The oxidant is INSERT.
- The ignition sequence is INSERT .

Incident Details

Loss Location: Name of Owner
Street
Town, Massachusetts Zip Code

On DATE, an examination was conducted on the type of property at the above-referenced location. The purpose of the exam was to determine the origin and cause of a fire that occurred on DATE. This report, with the enclosed photographs, is the abbreviated summary of conclusions.

Property Description

For purposes of this report, the building is considered to face **cardinal direction** toward **street**. The building is a **single-story, wood-framed** structure built over a **foundation**. The exterior walls are clad with **siding**, and the roof is covered with **roof**. According to public records, the house was built in **year**, and **property owner** has owned it since **year/date** (Figure 1).

Front Elevation Photo (REPLACE W/PHOTO)
Format photo 3.75 wide x 2.5 high

Figure 1: Cardinal Direction (Front) Elevation of Structure

Background

WITNESS/STATEMENTS about the events leading up to the fire. Any recent repairs/renovations, IF APPLICABLE. ADDITIONAL WITNESSES statement if the fire was discovered by someone other than the owner.

Responding Fire Department

Responding fire department details; Date, Time, Apparatus, Number of Alarms, etc.

Summary of Observations

Following the systematic approach, the examination begins on **direction** (front) exterior of the house and continues (**clockwise/anticlockwise**) followed by an interior study, working from the areas of least damage to the area of greatest fire damage.¹ Fire patterns, fire dynamics, a comparative fire damage analysis,

¹ Technical Committee on Fire Investigations, *NFPA 921, Guide for Fire and Explosion Investigations*, 2024 (Quincy, MA: National Fire Protection Association, January 10, 2024), Chapter 4.2 **Systematic Approach**. The systematic approach recommended is based on the scientific method, which is used in the physical sciences. The method provides an organizational and analytical process that is desirable and necessary in a successful fire investigation.

and witness statements and/or electronic data indicate the fire originated in the **AREA OF FIRE ORIGIN** (Figure 2).²

A/O Photo (REPLACE W/PHOTO)
Format photo **3.75 wide x 2.5 high**

Figure 2: Area of Fire Origin

² Technical Committee on Fire Investigations, *NFPA 921, Guide for Fire and Explosion Investigations*, 2024 (Quincy, MA: National Fire Protection Association, January 10, 2024), Chapter 18.1.2 **Origin Determination**. Determination of the origin of the fire involves the coordination of information derived from one or more of the following: *Witness Information and/or Electronic Data, Fire Patterns, Fire Dynamics*.

Type a paragraph describing fuel load and ignition source(s) in the area of origin, ***no description of other items not in the area of origin if they did not cause or contribute to the cause of the fire.*** It is permissible to list the items that were eliminated if the exact ignition sources cannot be determined (Figure 3).

Ignition Source Photo (REPLACE W/PHOTO)
Format photo **3.75 wide x 2.5 high**

Figure 3: Ignition Source

Research

The literature reviewed includes:

1. LITERATURE

Evidence/Sample Collection

The evidence collected includes:

1. ITEM

Conclusion

AREA OF ORIGIN. The cause of the fire is **IGNITION SEQUENCE FROM PAGE 2.**

This report is not intended to convey all of the facts, circumstances, or data utilized to formulate the conclusions herein. A complete investigation was conducted utilizing recognized and accepted procedures and practices for fire investigations as outlined in the National Fire Protection Association (NFPA) 921, Guide for Fire and Explosion Investigations, 2024 edition. Additional information will be retained in the District 14 Regional Fire Investigation Team file. This summary is based on information known to fire investigators at the time it is issued. The Massachusetts Fire District 14 Regional Fire Investigation Team reserves the right to amend or supplement this report if additional relevant information becomes available.

Sincerely,

First Last, Credentials
Certified Fire Investigator

Attachments

Appendix A:

Appendix B:

Appendix A

INSERT **10 PHOTOS** WITH A SIMPLE CAPTION BENEATH.
(2 Photos/page)

Format photo to be **5.25 wide x 3.5 high**

MA FIRE DISTRICT 14 FIRE INVESTIGATION TEAM

VEHICLE REPORT

Incident Number: 08102025 (2day,2month,4year)

Street Name

Town, ST 12345

Date of Examination: DATE

Lead Investigator: First Last, Credentials

Summary

On DATE, an examination was conducted at the above-referenced loss location address. The purpose of the exam was to determine the origin and cause of a fire that occurred on DATE. In summary, based on what is known at this time, I have the following opinion(s):

This summary is meant to convey the information the reader needs to understand what happened. Type a paragraph or two describing where the fire originated and identify any evidence available and/or witness statements which identify the factors/parties that contributed to the most plausible fire cause, if they exist. If this report will conclusively define the cause of the fire, this section should contain the origin and cause of the fire and the witness statement(s) that support it.

Example: The fire originated in the engine compartment of the 2014 Volkswagen Tiguan 2.0 TSI 4Motion. Mr. James Smith purchased the new vehicle in 2015 from Johnson Motorworks in Maynard, Massachusetts. Mr. Smith stated the vehicle was not driven much and only had approximately 32,000 miles. Mr. Smith said the engine oil was changed approximately three hours prior to the fire at Jiffy Lube in South Acton, Massachusetts. Mr. Smith's 24-year-old daughter, Ms. Jennifer Smith, took the vehicle for the oil change and was driving the vehicle home when the check engine light came on, and within seconds, the vehicle would not accelerate above 40 miles per hour (MPH). She pulled to the side of the road, smoke filled the passenger compartment, and the hood began to change colors.

Delete all this green text before sending your report to peer review.

August 17, 2025

First Last (Author)
Fire Department

Vehicle Owner
Street
Town, Massachusetts Zip Code

Incident Number: 08102025
Date of Examination: DATE

Summary of Conclusions

In summary, based on what is known at this time, I am of the opinion that:

- The vehicle type is a *INSERT*.
- The vehicle brand and model is *INSERT*.
- The origin of the fire is *INSERT*.
- The first fuel ignited is *INSERT*.
- The ignition source is *INSERT*.
- The oxidant is *atmospheric air*.
- The ignition sequence is *INSERT*.

Incident Details

Loss Location: **Name of Owner**
 # Street
 Town, Massachusetts Zip Code

On **DATE**, an examination was conducted on the **type of vehicle** at the above-referenced location. The purpose of the exam was to determine the origin and cause of a fire that occurred on **DATE**. This report, with the enclosed photographs, is a summary of conclusions.

Vehicle Description

For purposes of this report, the driver's side of the vehicle is considered the left and the hood the front. The vehicle is a **COLOR YEAR BRAND MODEL** and has **STATE** license plate **PLATE**. The vehicle identification number (VIN) is **VIN**. At the time of this study, the vehicle's odometer read **MILES** miles.

Front of Vehicle Photo
Format photo 3.75 wide x 2.5 high

Figure 1: Front of Vehicle

Background

WITNESS/STATEMENTS about the events leading up to the fire. Any recent repairs/renovations, **IF APPLICABLE**. **ADDITIONAL WITNESSES** statement if the fire was discovered by someone other than the owner.

Responding Fire Department

Responding fire department details; Date, Time, Apparatus, Number of Alarms, etc.

Summary of Observations

Following the systematic approach, the examination begins at the front exterior of the vehicle and continues **(clockwise/anticlockwise)**, followed by an interior study of the vehicle compartments, working from the areas of least

damage to the area of greatest fire damage.³ Fire patterns, fire dynamics, comparative fire damage analysis, witness statements, and/or electronic data indicate the fire originated in the **AREA OF FIRE ORIGIN** (Figure 2).⁴

A/O Photo (REPLACE W/PHOTO)
Format photo **3.75 wide x 2.5 high**

Figure 2: Area of Fire Origin

Type a paragraph describing fuel load and ignition source(s) in the area of origin, ***no description of other items not in the area of origin if they did not cause or contribute to the cause of the fire.*** It is permissible to list the items that were eliminated if the exact ignition sources cannot be determined (Figure 3).

Ignition Source Photo (REPLACE W/PHOTO)
Format photo **3.75 wide x 2.5 high**

Figure 3: Ignition Source

Research

The literature reviewed includes:

2. LITERATURE

Evidence/Sample Collection

The evidence collected includes:

2. ITEM

³ Technical Committee on Fire Investigations, *921, Guide for Fire and Explosion Investigations*, 2024 (Quincy, MA: National Fire Protection Association, January 10, 2024), Chapter 4.2 **Systematic Approach**. The systematic approach recommended is based on the scientific method, which is used in the physical sciences. The method provides an organizational and analytical process that is desirable and necessary in a successful fire investigation.

⁴ Technical Committee on Fire Investigations, *921, Guide for Fire and Explosion Investigations*, 2024 (Quincy, MA: National Fire Protection Association, January 10, 2024), Chapter 18.1.2 **Origin Determination**. Determination of the origin of the fire involves the coordination of information derived from one or more of the following: *Witness Information and/or Electronic Data, Fire Patterns, Fire Dynamics*.

Conclusion

AREA OF ORIGIN. The cause of the fire is **IGNITION SEQUENCE FROM PAGE 2.**

This report is not intended to convey all of the facts, circumstances, or data utilized to formulate the conclusions herein. A complete investigation was conducted utilizing recognized and accepted procedures and practices for fire investigations as outlined in the National Fire Protection Association (NFPA) 921, Guide for Fire and Explosion Investigations, 2024 edition. Additional information will be retained in the District 14 Regional Fire Investigation Team file. This summary is based on information known to fire investigators at the time it is issued. The Massachusetts Fire District 14 Regional Fire Investigation Team reserves the right to amend or supplement this report if additional relevant information becomes available.

Sincerely,

First Last, Credentials
Certified Fire Investigator

Attachments

Appendix A:

Appendix B:

APPENDIX A1

INSERT **10 PHOTOS** WITH A SIMPLE CAPTION BENEATH.
(2 Photos/page)

Format photo to be **5.25 wide x 3.5 high**

MA FIRE DISTRICT 14 FIRE INVESTIGATION TEAM

CONSENT TO SEARCH

DATE: _____

LOCATION: _____

INCIDENT: _____

I, _____ (owner, occupant) consent to search by members/officers of the Acton Fire Department and its delegated Affiliates, of the property located at _____ to determine the origin and cause of the fire occurring on _____. It is understood that items may be removed from this property to further establish origin and cause of the fire.

I am giving this written permission to the Acton Fire Department freely and voluntarily, without any threats or promises having been made to me. I further understand I may withdraw my consent at any time during the scene examination.

Signature: _____

Printed: _____

Address: _____

Date: _____ Time: _____

Witness Signature: _____

Witness Printed: _____

**MA FIRE DISTRICT 14
FIRE INVESTIGATION TEAM**

NOTICE

**THE ITEMS LISTED BELOW AND/OR LOCATED IN THIS AREA ARE
BEING EVALUATED AS TO THEIR POTENTIAL ASSOCIATION WITH
THIS INCIDENT.**

**DO NOT REMOVE, ALTER, DESTROY, DISTURB OR TAMPER WITH
ANY ITEM(S) OR MATERIAL(S) IN THIS AREA.**

**IF YOU REQUIRE ACCESS TO THIS AREA OR THE MATERIALS
PRESENT, PLEASE CONTACT THE FIRE INVESTIGATOR LISTED
BELOW.**

SPECIFIC AREA(S) / ITEM(S) INCLUDE BUT MAY NOT BE LIMITED TO:

INCIDENT LOCATION:	
DATE POSTED:	
INVESTIGATOR:	
PHONE NUMBER:	

APPENDIX D

Appendix D

APPENDIX E

Appendix E



Purpose

The purpose of this task book is an evaluative tool designed to document that a candidate has successfully demonstrated certain requisite skills to meet the specific job performance outcomes. The skills required herein are based on those listed in the 2022 edition of the National Fire Protection Association 1033 “Standard for Professional Qualifications for Fire Investigators” (NFPA 1033). Selected skill objectives in this task book supplement the trainee learning outcomes and objectives met by successfully completing the Fire Investigator Training Program.

Expectation of Candidate

The candidate is solely responsible for maintaining, completing, and submitting this task book. Any loss or damage to this task book must be immediately reported to the Team Coordinator.

Requirement to Conduct On-Scene Activities

The candidate shall participate in a minimum of 5 fire scene investigations. The candidate shall observe, describe, or perform the tasks described herein. The candidate shall receive a score of 3 in all categories in order to pass.

Expectations of Evaluators



An evaluator may verify satisfactory execution through the following methods:

- First-hand observation
- Review of documentation that verifies satisfactory execution
- Training-based scenarios

Team Coordinators will designate qualified evaluators, who will be certified, at a minimum, as Certified Fire Investigator (CFI) or Certified Fire and Explosion Investigator (CFEI). A certified fire investigator's (FI3) authorization is required for the final signature of completion. A certification task book may have more than one evaluator. If a designated evaluator is not present, an FI2 may evaluate skills. An FI3 is required for the final signature of competency.

All evaluators shall:

1. Review and understand the candidate's certification task book requirements and responsibilities.
2. Verify the candidate's successful completion of one or more job performance requirements through observation or review.
3. Not evaluate any job performance requirement (JPR) until after the full task is completed
4. Sign all appropriate lines in the certification task book with a handwritten signature to record demonstrated performance of tasks.

By signing below, you acknowledge that you have completed the CFITrainer "Principles of Fire Investigation" certificate and are on the Massachusetts Fire District 14 Regional Fire Investigation Team as a member in training. You are not responsible for conducting any scene examination, and cannot participate in a scene examination without at least one FI2-level team member present. Once you have completed this training book, you will deliver it to the Team Coordinator for review.



*Please type or print legibly

Name: First		Last		MI
Department		Address		
Email		Phone number		
Date Initiated		Date Completed		

Chief's Name	First	Last
Signature		Date



Task Requirements:

1. Initial Scene Examination (see section 4.2.1, NFPA 1033).

The trainee shall perform the following tasks at a fire scene:

1. The trainee shall conduct an initial inspection and evaluation of the fire scene.
2. The trainee shall determine the area or point of origin, source of ignition, and the material(s) ignited.
3. The trainee shall determine the act or activity that brought the ignition source and materials together.
4. The trainee shall assess the subsequent progression, extinguishment, and containment of the fire.
5. The trainee shall secure the fire ground using marking devices, specialized tools, and equipment.

2. Conducting an Exterior Survey (see section 4.2.2, NFPA 1033).

The trainee shall perform the following tasks at a fire scene:

1. The trainee shall demonstrate evidence identification and preservation techniques.
2. The trainee shall identify on-scene hazards to avoid injuries to investigators.
3. The trainee shall determine safe access and egress routes to the property.

3. Conducting an Interior Survey (see section 4.2.3, NFPA 1033).

The trainee shall perform the following tasks at a fire scene:

1. The trainee shall identify and preserve areas of potential evidentiary value requiring further examination.
2. The trainee shall determine the evidentiary value of the contents.
3. The trainee shall identify hazards to avoid injuries to investigators.
4. The trainee shall assess the structural conditions of the building.
5. The trainee shall identify and describe the damage and effects of the fire.
6. The trainee shall identify and describe the impact of fire suppression efforts on fire.
7. The trainee shall evaluate the remaining protected areas and determine the presence or absence of contents.



4. Interpreting Fire Patterns (see section 4.2.4, NFPA 1033).

The trainee shall perform the following tasks at a fire scene:

1. The trainee shall interpret fire patterns so that each individual pattern is evaluated with respect to burning characteristics on different types of materials involved, in context, and in relationship with all patterns observed and mechanisms of heat transfer that led to the formation of the pattern.

5. Interpreting Fire Patterns (see section 4.2.5, NFPA 1033).

The trainee shall perform the following tasks at a fire scene:

1. The trainee shall identify possible phases of fire development.
2. The trainee shall evaluate methods and effects of fire suppression.
3. The trainee shall recognize potential false origin area patterns.
4. The trainee shall identify possible areas of fire origin.
5. The trainee shall identify the damage and effects of the fire event.
6. The trainee shall identify and interpret variations of fire patterns on different materials concerning heat release rates, form, and ignitability.
7. The trainee shall distinguish the impact of different types of fuel loads and fuel trails.

6. Examine and Remove Fire Debris (see section 4.2.6, NFPA 1033).

The trainee shall perform the following tasks at a fire scene:

1. The trainee shall examine debris for cause evidence.
2. The trainee shall identify potential ignition sources.
3. The trainee shall preserve evidence without inflicting damage or contamination.
4. The trainee shall employ search techniques that further the discovery of fire cause evidence and ignition sources.
5. The trainee shall use search techniques that incorporate documentation, collection, and preservation of evidence.



7. Reconstruct the Area of Origin (see section 4.2.7, NFPA 1033).

The trainee shall perform the following tasks at a fire scene:

1. The trainee shall reconstruct the area of origin so that all protected areas and fire patterns, as they correlate to contents or structural remains, items potentially critical to cause determination, and photo documentation are returned to their pre- fire location, to determine the point of origin.
2. The trainee shall return materials to their original positions.
3. The trainee shall examine all materials to determine the effects of fire and distinguish among different types of fire damaged contents

8. Inspects the Performance of Building Systems (see section 4.2.8, NFPA 1033).

The trainee shall perform the following tasks at a fire scene:

1. The trainee shall inspect the detection, suppression, HVAC, utilities, and building documentation.
2. The trainee shall determine the operating system's impact on fire growth and spread when identifying the origin areas.
3. The trainee shall identify defeated and/or failed systems.
4. The trainee shall recognize the system's potential as a fire cause.
5. The trainee shall determine any alterations to and failure indicators of building systems.
6. The trainee shall evaluate the suppression efforts on building systems.

9. Effects of Explosions (see section 4.2.9, NFPA 1033).

The trainee shall perform the following tasks at a fire scene that contains evidence of an explosion:

1. The trainee shall discriminate the effects of explosions from other types of damage.
2. The trainee shall identify and preserve explosion evidence.
3. The trainee shall identify explosive effects on glass, walls, foundations, and other building materials.
4. The trainee shall analyze damage to document blast zone and origin.



10. Documenting the Scene (see section 4.3, NFPA 1033).

The trainee shall perform the following tasks at a fire scene:

1. The trainee shall diagram the scene to accurately represent the scene, evidence, pertinent contents, significant patterns, and area(s) or point(s) of origin.
2. The trainee shall sketch the scene using basic drafting skills and evidence recognition and observation skills.
3. The trainee shall photograph and document the scene to accurately depict and support scene findings.
1. The trainee shall construct investigative notes from available documents and interview information, making sure the notes are accurate.
2. The trainee shall construct investigative notes that are accurate, provide further documentation of the scene, and represent complete documentation of the scene findings.
3. The trainee shall demonstrate data- reduction skills, note-taking skills, and observational and correlating skills.

11. Evidence Collection & Preservation – Locate, Collect, and Package Evidence (see section 4.4.2, NFPA 1033).

The trainee shall perform the following tasks at a fire scene:

1. The trainee shall locate, document, collect, label, package, and store evidence so that it is properly identified, preserved, collected, packaged, and stored for use in testing, legal, or other proceedings and examinations, ensuring cross-contamination and investigator-inflicted damage to evidentiary items are avoided and the chain of custody is established.
2. The trainee shall recognize different types of evidence and determine whether evidence is critical to the investigation.
3. The trainee shall abide by legal procedures to retain evidence required within the investigation.
4. The trainee shall abide by legal procedures for managing victims and fatalities so that all evidence is discovered and preserved and the procedures are followed.

12. Evidence Collection & Preservation – Evidence for Analysis (see section 4.4.3, NFPA 1033).

The trainee shall perform the following tasks at a fire scene:



The trainee shall select items for analysis that support the specific needs of the investigation and evaluate the fire incident to determine any additional forensic, engineering, or laboratory resource needs.

13. Evidence Collection & Preservation – Chain of Custody (see section 4.4.4, NFPA 1033).

The trainee shall perform the following tasks at a fire scene:

The trainee shall maintain a chain of custody so that written documentation exists for each piece of evidence and ensure evidence is secured.

14. Evidence Collection & Preservation – Evidence Disposal (see section 4.4.5, NFPA 1033).

The trainee shall perform the following tasks at a fire scene:

The trainee shall dispose of evidence, based on jurisdictional or agency regulations, and file information so that the disposal is timely, safely conducted, and in compliance with jurisdictional or agency requirements.

15. Conducting Interviews (see section 4.5.2, NFPA 1033).

The trainee shall perform the following tasks:

The trainee shall obtain information, ask follow-up questions, elicit responses to all questions, document the response to each question, and adjust interviewing strategies based on deductive reasoning and interpretation of verbal and nonverbal communications.

16. Conducting Interviews – Evaluation of Information (see section 4.5.3, NFPA 1033).

The trainee shall perform the following tasks:

1. The trainee shall evaluate interview information so that all interview data is individually analyzed and correlated with all other interviews.
2. The trainee shall document corroborative and conflicting information.
3. The trainee shall develop new leads.
4. The trainee shall demonstrate correlation skills

17. Post Incident Investigations – Investigate File (see section 4.6.2, NFPA 1033).

The trainee shall perform the following tasks:

1. The trainee shall Identify areas of further investigation, interpret the relationship between gathered documents and information, and identify corroborative evidence and discrepancies.
2. The trainee shall demonstrate information assessment, correlation, and organizational skills.

18. Post Incident Investigations – Coordination of Expert Resources (see section 4.6.3, NFPA 1033).

The trainee shall perform the following task:

The trainee shall demonstrate an understanding of the importance of ensuring that expert competencies are matched to specific investigation needs, that financial expenditures are justified, and that utilization of experts clearly furthers the investigative goals of determining cause or affixing responsibility

19. Post Incident Investigations – Motive and Opportunity (see section 4.6.4, NFPA 1033).

The trainee shall perform the following tasks:

1. The trainee shall demonstrate an understanding of how to establish evidence as to motive and/or opportunity to commit a crime.
2. The trainee shall demonstrate an understanding of how to conduct a financial analysis of evidence related to the case.
3. The trainee shall demonstrate an understanding of how to gather and analyze records that may show motive to commit a crime.

20. Post Incident Investigations – Determination of Investigative Opinion (see section 4.6.5, NFPA 1033).

The trainee shall perform the following task:

The trainee shall formulate an opinion concerning origin, cause, or responsibility for the fire, supported by the data, facts, records, reports, documents, and evidence.



21. Presentation of Information (see sections 4.7 and 4.7.1, NFPA 1033). The trainee shall perform the following tasks:

1. The trainee shall present the findings to the designated evaluator who is not involved in the actual investigation.
2. The trainee shall prepare a written report that accurately reflects the investigative findings, is concise, expresses the investigator's opinion, contains facts and data that the investigator relied on in rendering an opinion, contains the investigator's reasoning for his or her opinion, and meets the needs or requirements of the intended audience.

22. Presentation of Investigative Findings (see section 4.7.2, NFPA 1033). The trainee shall perform the following tasks:

1. The trainee shall present the investigative findings verbally to an audience.
2. The trainee shall complete the presentation within an allotted time.
3. The trainee shall demonstrate communication skills.
4. The trainee shall determine the audience's needs and correlate the content of findings to deliver information to meet the needs of the audience.

23. Presentation of Testimony (see section 4.7.3, NFPA 1033).

The trainee shall perform the following tasks:

1. The trainee shall testify during simulated legal proceedings in a manner that conveys all pertinent investigative information and ensures that evidence is presented clearly and accurately.
2. The trainee shall demonstrate the ability to differentiate facts from opinion and determine accepted procedures, practices, and etiquette during a simulated legal proceeding.



TASK	POSSIBLE POINTS			POINTS AWARDED	EVALUATOR SIGNATURE & DATE
	1	2	3		
In accordance with NFPA 1033					
1. INITIAL SCENE EXAMINATION SECTION 4.2.1	• No system used • Proceeds to the interior without first examining the exterior • Does not observe exterior damage • Does not identify potential evidence • Does not determine areas to be protected • Does not mark the perimeter	• Uses a systematic approach • Observes fire damage but is unable to correlate it to the area of origin • Does not identify the perimeter or does not mark the perimeter • Misses potential evidence	• Uses a system to observe from least to most damaged, exterior to interior • Observes fire damage and utilizes information to locate the general area of origin • Marks items of potential evidence • Determines the need for scene security and restricts the scene to authorized personnel • Uses tools and equipment appropriately • Describes spoliation concerns		
2. CONDUCTING EXTERIOR SURVEY SECTION 4.2.2	• Does not recognize hazardous or potential injury areas • Unable to determine the room of origin • Does not recognize building construction factors • Misses potential evidence • Does not photograph the scene	• Recognizes hazardous areas but gets involved in the investigation, resulting in potential injury • Difficulty in determining the area of origin	• Observes surroundings for hazards and potential injury locations and avoids the same • Locates the fire scene • Recognizes building construction and its relation to fire behavior and fire flow		



	• Does not begin documentation • Does not understand fire behavior	• Recognizes building construction but cannot apply fire behavior to construction • Documentation is not thorough • Misinterprets fire behavior and flow paths	• Conducts an exterior survey of the entire outside of the fire scene • Identifies any potential evidence, photographs, documents, location, and marks for preservation and collection • Documents effects of fire suppression, fire behavior and spread, and burn and smoke patterns		
3. CONDUCTING INTERIOR SURVEY SECTION 4.2.3	• Does not relate structural conditions to fire behavior • Does not apply concepts of fire behavior, flow paths, and fire suppression efforts to fire scene damage • Misses potential evidence • Does not understand the value of evidence	• Able to find the fire area • Difficulty assessing structural conditions • Difficulty relating fire damage to fire behavior, fire flow path, and suppression efforts • Misses some hazardous conditions • Finds most evidentiary items and understands their value	• Locates the potential fire area • Assesses structural conditions • Observes the damage and effects of the fire • Identifies fire flow paths • Observes the scene for potential hazards, including structural collapse, electrical hazards, contamination, and a toxic atmosphere. • Identifies interior building construction characteristics and their impact on fire growth and spread • Identifies and preserves potential evidence		



			requiring further examination (i.e., financial records, unusual burn patterns on floors and/or walls, low burn levels, absence of furnishings, etc.) • Determines the evidentiary value of contents.		
4. INTERPRETING FIRE PATTERNS SECTION 4.2.4	• Misses or inappropriately analyzes fire patterns • Unfamiliar with the burning characteristics of normal fuels found in the structure • Unable to explain fire spread according to the chemistry and physics of fire	• Locates fire patterns and has a little difficulty analyzing patterns in relation to fire behavior • Familiar with the burning characteristics of most items commonly found in a structure • Able to explain most of the fire spread according to the chemistry and physics of fire	• Observes and documents burn patterns and charring in relation to fire behavior, burning characteristics of fuels, proximity of fuels, and effects of fire suppression • Relates fire chemistry and physics to fire behavior and spread • Determines and documents fire development		
5. INTERPRETING FIRE PATTERNS	• Unfamiliar with the phases of fire and burn patterns associated with each	• Familiar with the phases of fire and can distinguish most patterns	• Identifies phases and fire and burn patterns associated with the phase		



SECTION 4.2.5	• Unable to distinguish the effects of fire suppression efforts • Unable to determine between origin and false origins • Does not understand varying degrees of heat release • Misses fuel trails	associated with the phases • Ability to determine most of the fire suppression efforts and the effects on fire and patterns • Able to identify most false origins • Observes fuel but doesn't apply it to the fire scene	• Evaluates and documents the effects of suppression • Recognizes and documents false origin area patterns • Correctly identifies all areas of origin • Identifies different materials involved and the effects of heat release rates and ignitability • Identifies fuel trails and their relation to patterns • Identifies how fuel loads impact fire behavior and fire patterns		
6. EXAMINE AND REMOVE FIRE DEBRIS SECTION 4.2.6	• Does not use a systematic method for debris removal • Allows contamination of evidence • Misses ignition sources • Unable to determine the fire cause • Does not document the scene • Does not choose a proper collection container	• Uses a systematic method • Allows for some cross-contamination (does not clean tools, forgets to change gloves, etc.) • Locates most of the ignition sources. • Determines the fire cause • Documentation needs to be more thorough	• Properly removes fire debris in layers for further examination • Cleans tools before, during, and after use • Checks all debris for fire cause evidence • Identified possible ignition sources and searched for evidence to support or refute • Assures evidence is not damaged during discovery • Correctly locates and identifies the ignition		



		• Properly chooses the collection container	source(s) and determines the fire cause • Documents evidence by photographing in place, documenting, and choosing an appropriate collection device • Changes gloves and maintains proper techniques to avoid contamination of evidence		
7. RECONSTRUCT THE AREA OF ORIGIN SECTION 4.2.7	• Cannot relate the contents to the structural remains • Does not photograph the scene • Does not document activities • Unable to determine point of origin • Does not observe furnishings	• Identifies most of the relationships between content and structural remains • Photographs most of the scene • Documents activities, but needs to provide more thorough documentation • Narrows the point of origin down to two possibilities • Observes effects of fire on furnishings but has difficulty explaining damage in relation to fire dynamics	• Identifies protected areas and fire patterns and correlates them to contents or structural remains • Returns furnishings to pre-fire locations • Photographs the scene prior to the return of furnishings and after the return • Document reconstruction activities • Use reconstructed scene, fire patterns, and knowledge of fire behavior to determine the point of origin • Examines furnishings and materials for		



			consistency with fire dynamics		
8. INSPECTS THE PERFORMANCE OF BUILDING SYSTEMS SECTION 4.2.8	• Does not consider outside utilities • No inspections completed • Detection systems not checked for functionality or signs of tampering • HVAC system not inspected • Suppression systems observed but not inspected • Lack of documentation	• Does not account for all outside utilities or does not inspect • Observes systems but does not fully understand how to check for functionality or signs of tampering • Does not consider services as a potential fire source • Documents, but needs to be more thorough	• Identifies and inspects exterior utilities for functionality and signs of tampering (closed valves, FDC caps removed and blocked, etc.) • Locates and inspects detection systems for functionality and signs of tampering • Locate and inspect the HVAC system • Locate and inspect suppression systems for functionality and signs of tampering (valves closed, alarms silenced, power systems interrupted, etc.) • Identifies the need for expert resources • Documents findings of inspections, including any that were defective and/or defective • Recognizes the system as a possible fire cause		
9. EFFECTS OF EXPLOSION	• Unable to distinguish between fire patterns and explosion patterns	• Distinguishes between fire and explosion patterns,	• Identifies patterns created by explosions		

SECTION 4.2.9

- Unable to determine the impact of the explosion on structural elements
- Misses unexploded fuels/materials
- Does not thoroughly recognize the debris field
- Misses potential evidence
- Does not observe explosion effects on glass, structural elements, and building materials

- but is unable to determine pre-blast and post-blast fire damage
- Identifies unexploded materials
 - Has difficulty determining the debris field
 - Observes structural elements but cannot apply to the determination of damage pre- or post-blast

- Determines effects of percussion, blast, and impact on structural elements and fire patterns
- Identifies the heat of the explosive event
- Identifies any unexploded materials, gases, or liquids
- Identifies the debris field and marks the area
- Identifies and preserves evidence that can be minuscule
- Identifies pre-blast versus post-blast fire damage
- Identifies if soot is present on glass windows
- Observes structural elements to determine explosive effects
- Determines blast zone and origin

10.
DOCUMENTING
THE SCENE

SECTION 4.3

- Does not diagram accurately or does not include evidence locations, burn patterns, etc.
- Fails to depict the scene accurately

- Scene is documented but misses several items
- Depicts the scene adequately but needs more detail

- Diagrams scene to scale showing evidence locations, significant burn patterns, and area or point of origin
- Photographs are taken to depict the scene,

- Investigative notes are not organized or do not identify conflicting information
- Has difficulty determining what additional information is needed
- Does not process the scene appropriately to preserve evidence
- Field notes are not comprehensive

- Investigative notes are organized but may need additional documentation
- Identifies areas that need further information
- Process scene but misses some evidence or mishandles some evidence
- Field notes need more detail

- evidence, and support findings accurately
- Documents photos in the log book and on a photo rough sketch
 - Constructs accurate investigative notes of a systematic approach, evidence discovery and collection, chain of custody, reconstruction, and discovery of the area of origin
 - Provides accurate notes
 - Identifies conflicting information
 - Determines and recommends follow-up information to corroborate or dispute investigative findings
 - Represents complete documentation of the scene findings
 - Uses proper procedures to manage victims and fatalities
 - Properly discovers and preserves all evidence
 - Fills out crime lab analysis request forms, indicating specific analysis requested
 - Document the process in field notes.



11. EVIDENCE COLLECTION AND PRESERVATION (LOCATE, COLLECT, PACKAGE) SECTION 4.4.2	• Evidence is contaminated • Adequate samples were not obtained • Property tags not filled out • Cannot distinguish between critical evidence • Chain of custody forms not completed or chain of custody not maintained • Victims/fatalities processed inappropriately	• Allows some contamination of evidence • Tags evidence but does not complete the form • Identifies most items of critical evidence • Establishes a chain of custody but has some difficulty with documentation of maintenance • Unsure of proper processing techniques for victims/fatalities	• Uses appropriate handling techniques to ensure evidence is not contaminated • Locates and selects appropriate samples and evidence items • Properly marks and/or tags and packages evidence • Recognizes different types of evidence and determines if evidence is critical to the investigation • Maintains chain of custody using appropriate forms and/or logs • Uses appropriate techniques when dealing with fatalities and victims, preserving evidence, and working with medical examiners		
12. EVIDENCE COLLECTION AND PRESERVATION (ANALYSIS)	• Does not use appropriate forms/logs for submitting items to the lab • Does not maintain a chain of custody	• Logs/forms not filled out • Chain of custody not followed strictly • Leaves details of information out	• Submits items to the lab utilizing appropriate forms and /or logs • Maintains chain of custody		



SECTION 4.4.3	• Inaccurate information provided		• Assures accuracy of information received and provided to the lab.		
13. EVIDENCE COLLECTION AND PRESERVATION (CHAIN OF CUSTODY) SECTION 4.4.4	• Evidence not secured properly following established guidelines • Chain of custody compromised	• Evidence secured, but is not clearly marked or isolated as needed • Chain of custody issues during transport or removal (not logged out, personnel having access to evidence, etc.)	• Properly completes chain of custody forms/documents • Maintains chain of custody of evidence throughout investigation and legal proceedings • Secures evidence to assure it is not tampered with.		
14. EVIDENCE COLLECTION AND PRESERVATION (DISPOSAL) SECTION 4.4.5	• Disposes of property improperly • Disposes of property before legal proceedings are complete • Does not dispose of property in a timely manner • Disposal not documented.	• Property disposed of following model guidelines, but not AHJ guidelines • Disposed of unsafely • Documented disposal but not thoroughly (i.e, date and time, who disposed; method of disposal, etc.)	• Identifies evidence subject to disposal • Disposes of evidence according to the model evidence policy • Disposes of evidence in a timely, safe manner • Documents the disposal using the appropriate form/document		

15. CONDUCTING INTERVIEWS

SECTION 4.5.2

- Does not fully identify information that needs to be discovered during the interview process
- Does not request additional information
- Does not develop an interview plan
- Questions not fully developed
- Does not obtain pertinent information during the interview
- Documentation is not thorough and inaccurate
- Unable to adjust interview strategies
- Does not have good communication and listening skills

- Misses some information required before interviews
- Identifies most of the information that needs to be discovered during interviews
- Interview plan developed but not thorough
- Questions developed
- Documents responses but needs to be more thorough and accurate
- Has some skills in using different interview techniques
- Moderate communication and listening skills.

- Reviews provided information and requests additional information if needed
- Develops an interview plan that reflects a strategy to determine the fire cause further
- Assigns responsibilities
- Documents interview strategies by listing relevant questions
- Obtains pertinent information from interviewees
- Elicits responses to all questions
- Documents all responses accurately
- Able to adjust interview strategy based on deductive reasoning
- Interprets verbal and nonverbal communications and exhibits strong listening skills

16. CONDUCTING INTERVIEWS (EVALUATION OF INFORMATION)

- Cannot analyze and organize information into corroborating and conflicting groups
- Does not recognize new investigative leads

- Difficulty analyzing and organizing information into corroborating and conflicting groups

- Reviews provided information
- Analyzes and correlates information from sources into



SECTION 4.5.3	discovered during interviews • Unable to evaluate source information	• Identifies most of the new investigative leads discovered during interviews • Able to evaluate source information	corroborative or conflicting groups • Documents new investigative leads discovered during interviews • Lists follow-up names and contacts • Able to evaluate source information (first responders, neighbors, witnesses, etc.)		
17. POST-INCIDENT INVESTIGATION (FILES) SECTION 4.6.2	• Cannot correlate and organize information • Unable to select acceptable documents for legal proceedings • Does not identify additional resource materials	• Difficulty correlating and organizing information • Difficulty determining which documents are acceptable for legal proceedings • Identifies most of the needed resource materials	• Gathers all documents, records, and reports applicable to the investigation • Maintain chain of custody • Selects documentation acceptable in legal proceedings • Reviews information, requests, and documents needed for additional resources/materials • Identifies area for further investigation (financial records, insurance documents, others involved in possible arson, additional lab results, etc.)		



			• Correlates gathered documents and information (investigative notes, interviews, photographs/sketches, etc.) • Discovers and documents evidence and information discrepancies • Able to correlate and organize information		
18. POST-INCIDENT INVESTIGATION (COORDINATION OF EXPERT RESOURCES) SECTION 4.6.3	• Does not recognize or document the need for experts • Does not justify the cost of an expert in relation to investigative goals or the determination of cause or responsibility • Does not network to determine qualified experts • Does not research experts' qualifications	• Able to recognize the need for experts, but does not know how to obtain or find one • Does not know how to determine the qualifications of an expert	• Reviews materials • Identifies and documents the need for specific experts • Justifies costs for each expert witness selected • Documents cost-benefit and impact on investigative goals, or determining cause or assigning responsibility • Networks with other investigators to identify experts • Questions experts relative to their qualifications		

19.
POST-INCIDENT
INVESTIGATION
(MOTIVE AND
OPPORTUNITY)

SECTION 4.6.4

- Does not understand concepts of financial analysis
- Does not relate evidence to motive and/or opportunity
- Does not correlate documents and evidence to motive
- Does not document findings, motive, or legal value of evidence

- Somewhat understands concepts of financial analysis, can gather information and evidence, but has difficulty relating to motive or opportunity
- Difficulty correlating documents and evidence to support the motive
- Needs additional or more thorough documentation

- Understands financial analysis and its impact on the case
- Gathers records and analysis, reviews interviews, and interprets fire scene information and evidence to establish a relationship to motive and/or opportunity
- Lists supporting documents that establish motive findings
- Documents evidence used to determine motive
- Documents the legal value of the evidence provided.

20.
POST-INCIDENT
INVESTIGATION
(DETERMINATION
OF
INVESTIGATIVE
OPINION)

SECTION 4.6.5

- Does not possess analytical or assimilation skills to formulate an opinion
- Unable to correlate data and evidence to support opinion

- Has difficulty with analytical or assimilation skills to formulate an opinion
- Difficulty correlating data and evidence to support an opinion

- Uses analytical and assimilation skills to formulate an opinion on origin, cause, or responsibility for the fire
- Correlates data, facts, records, reports, documents, and evidence that support the opinion



21. PRESENTATION OF INFORMATION SECTIONS 4.7 AND 4.7.1	• Cannot distinguish between various types of audiences • Does not present findings to the evaluator prior to presenting to the audience • Does not have good grammar or report writing skills • The report is not thorough and is missing facts, data, and the opinion of the fire	• Difficulty distinguishing between various types of audiences • Presents findings to the evaluator • Moderate grammar and report writing skills • The report is complete but could use additional or more thorough details.	• Identifies types of audiences and their needs/requirements • Presents findings to the evaluator • Composes a report including the investigator's opinion of the fire cause, facts, and data used to render the opinion • Reviews the report for accuracy and grammar • Submits a report to the audience.		
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**22.
PRESENTATION
OF
INVESTIGATIVE
FINDINGS**

SECTION 4.7.2

- Cannot verbally present an investigative report and accurate information
- Presents information not relevant or confusing to the case
- Has difficulty with time constraints
- Cannot answer follow-up questions thoroughly and without error.

- Difficulty presenting investigative report and accurate information
- Presents complete, relevant information, but in a confusing method
- Rambles
- Difficulty answering follow-up questions

- Obtains and reviews investigative report and other information
- Identifies audience members
- Verbally presents accurate information
- Presents only pertinent information for the intended audience
- Completes presentation within allotted time
- Answers follow-up questions from the audience without error.

**23.
PRESENTATION
OF TESTIMONY**

SECTION 4.7.3

- Cannot differentiate facts from opinions
- Unfamiliar with procedures, practices, and etiquette during legal proceedings
- Presents confusing information
- Demeanor and/or attire not appropriate for proceedings.

- Difficulty differentiating facts from opinions
- Unfamiliar with some of the procedures, practices, and etiquette during legal proceedings
- Presents accurate information, but not in clear, understandable terms

- Differentiates facts from opinions
- Utilizes appropriate procedures, practices, and etiquette during legal proceedings
- Presents information and evidence clearly and accurately
- Exhibits demeanor and attire appropriate to proceedings



		• Demeanor and/or attire are mostly appropriate for proceedings.			
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DRAFT

RESOLUTION OF ENACTMENT
(As revised on January 19, 2023)

The following pages represent the resolution of enactment and mutual aid Agreement signed by the Head of the Fire Department of the twenty-three members of Massachusetts Fire District Fourteen and agreed to by the Head of the Fire Department.

These documents provide the legal basis of Massachusetts Fire District Fourteen.

RESOLUTION

Whereas the Fire Chiefs of the cities and towns of Acton, Ashland, Boxborough, Carlisle, Concord, Framingham, Holliston, Hopedale, Hopkinton, Hudson, Lincoln, Marlborough, Maynard, Milford, Natick, Northborough, Sherborn, Shrewsbury, Southborough, Stow, Sudbury, Wayland, and Westborough desire to establish and maintain an expanded fire mutual aid system for the area covered by District Fourteen, and

Whereas, Massachusetts General Laws, Chapter 48, Section 59A as amended, enables cities, towns, and districts to come to the aid of other cities, towns, and districts to extinguish fires, and

Whereas, Massachusetts General Laws, Chapter 40, Section 4A, as amended, enables a governmental unit to enter into an Agreement with another governmental unit to provide joint fire service, and

Whereas, the above listed communities agree with the provisions of the fire mutual aid Agreement attached to and made a part of this resolution.

Now, Therefore Be It Resolved, that Massachusetts Fire District Fourteen do hereby join together for the purpose of providing expanded fire mutual aid assistance in the Central MetroWest area.

Be It Further Resolved that Massachusetts Fire District Fourteen shall be organized and operated in accordance with the fire mutual aid agreement, operational plan, and bylaws attached to this resolution.

MASSACHUSETTS FIRE DISTRICT FOURTEEN
MUTUAL AID AGREEMENT
FOR JOINT FIRE, RESCUE, AND/OR AMBULANCE SERVICE

THIS AGREEMENT, made and entered into this THIRTEENTH day of OCTOBER, 1987 between and among the parties signatory hereto.

WITNESSETH:

WHEREAS, it has been determined that the provisions of fire, rescue, and ambulance service across jurisdictional lines in emergencies will increase the ability to preserve the safety and welfare of the entire area, and

WHEREAS, Massachusetts General Laws, Chapter 40, Section 4A provides for one governmental unit to enter into an Agreement with one or more governmental units to perform jointly for such other unit or units any service, activity, or undertaking which each contracting unit is authorized by law to perform, and

WHEREAS, the parties to this Agreement agree to establish and carry into effect a plan to provide mutual aid fire, rescue, and ambulance service assistance.

NOW, THEREFORE, the parties hereto do mutually agree as follows:

1. **DECLARATION OF NEED FOR EXPANDED MUTUAL AID**

When a need for expanded mutual aid exists within the boundaries of any of the parties hereto, as the result of, or due to the imminence of, or occurrence of fire, emergency, or other public disaster, the party or parties shall notify the District Fourteen Control Point established by the Operational Plan appended to this Agreement of its need for fire, rescue, or ambulance assistance. Assistance shall be rendered according to the procedures set forth in the Operational Plan developed and agreed to by all the parties to this Agreement and described in Paragraph 2 below. Each party shall designate the appropriate official empowered to request assistance under this Agreement.

2. **OPERATION PLAN**

The mutual assistance to be rendered under this Agreement shall be available upon the development and approval by the parties hereto of an Operational Plan. The plan shall outline the exact procedures to be followed in responding to a request for assistance. Upon execution of this Agreement, the parties shall designate the appropriate official in their jurisdiction who shall participate in the development and implementation of the Operational Plan for Massachusetts Fire District Fourteen. The parties shall meet at least annually to review and, if necessary, to propose revisions to the Operational Plan. Any such revision shall become effective upon written assent of the Fire Department Chiefs, following a review by the Chief Executive Officers, of all the communities participating in this Agreement.

3. **GOVERNMENTAL IMMUNITY**

(A) The services performed and expenditures made under this Agreement shall be deemed for public and governmental purposes and all privileges, and immunities from liability, enjoyed by the local government within its boundaries shall extend to its participation under this Agreement in rendering fire, rescue, and ambulance service outside its boundaries to the extent the law provides.

(B) During the course of rendering mutual aid assistance as provided for by this Agreement, the municipality rendering such aid shall be responsible for the operation of its equipment and for any damage thereto, and, subject to the limitations of municipal liability, for personal injury sustained or caused by a member of its fire department, and for any payments it is required to make to a member of said department or to his widow or other dependents on account of injuries or death, notwithstanding Paragraph (b) of Subdivision (4) of Section 7 of Chapter 32.

(C) Each party shall waive any and all claims against all other parties hereto, which may arise out of their activities while rendering aid under this Agreement outside their respective jurisdictions, to the extent that each party may legally waive such claims.

(D) AID TO OTHER MUNICIPALITIES; AUTHORIZATION, FIRE DEPARTMENTS, DEFINED; PAYMENT OR REIMBURSEMENT FOR DAMAGES (MGL CHAPTER 48, SECTION 59A)

Cities, towns, and fire districts may, by ordinance or bylaw, or by vote of the board of aldermen, selectmen or of the prudential committee or board exercising similar powers authorize their respective fire departments to go to aid another city, town, fire district or area under federal in this Commonwealth or in any adjoining state in extinguishing fires therein, and while in the performance of their duties in extending such aid, the members of such departments shall have the same immunities and privileges as if performing the same within their respective cities, towns, or districts. Any such ordinance, bylaw, or vote may authorize the head of the fire department to extend such aid, subject to such conditions and restrictions as may be prescribed therein. The words "fire departments" as used in this section shall mean lawfully organized firefighting forces, however constituted.

During the course of rendering such aid to another municipality, the municipality rendering aid shall be responsible for the operation of its equipment and for any damage thereto, and subject to the limitations of municipal liability, for personal injury sustained or caused by a member of its fire department, and for any payments which it is required to make to a member of said department or to his widow or other dependents on account of injuries or death, notwithstanding paragraph (B) of Subdivision (4) of Section 7 of Chapter 32, unless such municipalities have a written Agreement to the contrary.

4. **EMPLOYMENT BENEFITS**

(A) All other privileges, immunities from liability, and exemptions from laws, ordinances, and regulations which the parties, firefighters, rescue or ambulance attendants, agents, and employees of the parties have in their own jurisdiction shall extend to and be effective in the jurisdiction in which they are giving assistance.

(B) All pension, relief, disability, and other benefits enjoyed by said employees shall extend to the services they perform under this Agreement outside their respective jurisdictions notwithstanding the provisions of Section 7 (4B) of Chapter 32 of the Massachusetts General Laws.

5. **DIRECTION OF ASSISTANCE**

The parties, firefighters, rescue or ambulance attendance, agents, and employees rendering assistance under this Agreement shall do so under the direction and control of the appropriate official designated by the jurisdiction requesting the aid.

6. **DURATION**

This Agreement supersedes any and all mutual aid Agreements previously entered into among the parties hereto and shall remain in effect for a period of twenty years from the date of the execution; provided it is understood and agreed that a party is not bound by the terms hereof unless and until said party has obtained the required authority as set forth in Section 4A of Chapter 40.

Any of the signatories to this Agreement may terminate their involvement in this Agreement, provided that notice of such termination is first given to each other party to the Agreement at least sixty (60) days prior to the date of termination.

Amendments to this Agreement shall be in writing and require the same authorization as required for initial execution by a signatory.

**MASSACHUSETTS FIRE DISTRICT FOURTEEN
MUTUAL AID AGREEMENT**

Acton Fire Chief Robert Hart_____

Ashland Fire Chief Keith Robie_____

Boxborough Fire Chief Paul Fillebrown_____

Carlisle Fire Chief Bryan Sorrows_____

Concord Fire Chief Thomas Judge_____

Framingham Fire Chief Michael Dutcher_____

Holliston Fire Chief Michael Cassidy_____

Hopedale Fire Chief Thomas Daige_____

Hopkinton Fire Chief William Miller_____

Hudson Fire Chief Bryan Johannes _____

Lincoln Fire Chief Brian Young_____

Marlborough Fire Chief Kevin Breen _____

Maynard Fire Chief Angela Lawless_____

Milford Fire Chief Mark Nelson_____

Natick Fire Chief Jason Ferschke_____

Northborough Fire Chief David Parenti_____

Sherborn Fire Chief Zachary Ward_____

Shrewsbury Fire Chief James Vuona_____

Southborough Fire Chief Steven Achilles_____

Stow Fire Chief John Paul Benoit_____

Sudbury Fire Chief John Whalen_____

Wayland Fire Chief Neil McPherson_____

Westborough Fire Patrick Purcell_____

APPENDIX G

Weston Fire Chief Justin Woodside _____

MA FIRE DISTRICT 14 FIRE INVESTIGATION TEAM

JOB DESCRIPTION

Fire Investigator (FI1)

The responsibilities of this classification include investigating fires to determine their origin and cause.

Distinguishing Characteristics

This is the first level in a three-level Fire Investigator Classification series. ***Fire Investigator I (FI1)*** works under the direct supervision of a Mentor (FI2/FI3) or Evaluator (FI3).

The Fire Investigator (FI1) is distinguished from the ***Fire Investigator II (FI2)*** classification in that the FI2 works independently to investigate fires and serves as a primary or lead investigator. This classification is distinguished from the ***Fire Investigator III (FI3)*** classification in that the FI3 classification can serve as the Evaluator for probationary fire investigators.

Examples of Duties (May vary by position)

1. Investigate the origin and cause of fires in Massachusetts Fire District 14 communities and their affiliates.
2. Interview witnesses and suspects and conduct follow-up investigations, including assisting in the detection, apprehension, and prosecution of arson suspects.
3. Provide expert testimony in court for both criminal and civil cases.
4. Prepare investigation reports as required.
5. Prepare detailed written reports scientifically documenting the cause of fire in arson cases and prepare reports for owners, fire departments, and other agencies.
6. Perform other duties as assigned.
7. Prepare detailed sketches, accurately representing scene details, evidence locations, and notable fire effects.

APPENDIX H

Knowledge/Skills (May vary by position)

Knowledge and understanding of advanced principles and techniques of fire, arson, and criminal investigations

Knowledge of current fire investigation principles, methodologies, and techniques

Knowledge and understanding of the principles of fire science and fire behavior

Knowledge and understanding of laws and the legal ramifications of fire and criminal investigations

Knowledge of fire and building codes

Knowledge of National Fire Protection Association (NFPA) 921 – Guide for Fire and Explosion Investigations and NFPA 1033 – Standard for Professional Fire Investigator.

Skill in writing detailed technical and scientific reports.

Skill in gathering, analyzing, and synthesizing data.

Skill in working with a variety of individuals from diverse backgrounds in high-stress situations.

Skill in effectively communicating orally and in writing, skill in writing clear and concise, detailed reports and fire investigation documentation, skill in making formal presentations to groups and committees.

Skill in problem-solving, conflict resolution, and decision making.

Skill in developing and maintaining effective working relationships with a variety of constituents

Skill in using the current office word processing software.

The ability to work irregular hours outdoors under unfavorable weather and site conditions.

The ability to handle strenuous physical tasks such as digging, lifting, and climbing.

The ability to handle physical and emotional stresses, including investigations with victims suffering and/or serious/fatal injuries.

Familiarity with and the ability to photograph using DSLR or other digital cameras.

Licensing, Certification, and Other Requirements

Current Massachusetts State Driver's License.

High School Diploma/GED.

Successful completion of the approved training as outlined in the Massachusetts Fire District 14 Regional Fire Investigation Team *Operation and Management Policy*.

Certifications recognized by the National Association of Fire Investigators (NAFI), the International Association of Arson Investigators (IAAI), the National Board on Fire Service Professional Qualifications (PRO BOARD), and the Forensic Specialties Accreditation Board (FASB).

APPENDIX H

Employment with an Authority Having Jurisdiction (AHJ) within Massachusetts Fire District 14 or an affiliate city/town.

NAME, CERTIFICATIONS, CERTIFICATIONS,

(xxx) xxx-xxxx
EMAIL

STREET
TOWN, ST ZIP

SUMMARY OF QUALIFICATIONS

Trained to investigate fire/explosion scenes, locate the area of origin, determine the cause, and collect and record samples for laboratory analysis; prepare investigation reports containing cause and origin analysis, witness statements, photographs, diagrams, and video when required, along with any other additional components; render a professional opinion with respect to origin and cause investigation by a systematic approach using the Scientific Method as outlined in NFPA 921.

EDUCATION

Degree Institution
Description

Month Year

CERTIFICATIONS

CFEI - Certified Fire and Explosion Investigator (NAFI)

YEAR

CFI - Certified Fire Investigator (IAAI)

YEAR

ABC – CERTIFYING ORGANIZATION (ABCD)

YEAR

PROFESSIONAL EXPERIENCE

Title, year-year
Employer

Description of role and responsibilities.

Title, year-year
Employer

Description of role and responsibilities.

PROFESSIONAL AFFILIATIONS

Name of Organization, year – year

Name of Organization, year – year

Name of Organization, year – year

Name of Organization, year – year

Name of Organization, year – year

Name of Organization, year – year

Title/Position within, year-year

PROFESSIONAL TRAINING

Course – Provider YEAR

Course – Provider YEAR

Course – Provider YEAR

Course – Provider YEAR

Course – Provider YEAR

MA FIRE DISTRICT 14 FIRE INVESTIGATION TEAM

Phone Contact List

Team Coordinator

Jenn Hurea 978.333.3369

Assistant Coordinators

Jared Crowley 978.833.1779

Gregg Silverio 508.410.5541

D14 FIT Control Point

Holbrook, MA 781.767.6820

Department of Fire Services

Massachusetts State Police

North Team

Central Team

South Team

Chiefs' Liaison

Assistant Chief Walter Latta 978.793.0534

Chiefs

Acton

Anita Arnum

Ashland

Boxborough

APPENDIX J

Carlisle

Concord

Framingham

Holliston

Hopedale

Hopkinton

Hudson

Lincoln

Marlborough

Maynard

Milford

Natick

Northborough

Sherborn

Shrewsbury

Southborough

Stow

Sudbury

Wayland

Westborough

Local 911 Dispatch

Acton

Ashland

Boxborough

Carlisle

Concord

Framingham

Holliston

APPENDIX J

Hopedale

Hopkinton

Hudson

Lincoln

Marlborough

Maynard

Milford

Natick

Northborough

Sherborn

Shrewsbury

Southborough

Stow

Sudbury

Wayland

Westborough

DOT

MSP Crime Lab