

# Fire Investigator

## Certification Procedure Guide



This Certification Procedure Guide reflects the requirements of:

**NFPA 1033: Standard for Professional Qualifications for Fire Investigator,  
2014 Edition**

**NFPA 921: Guide for Fire and Explosion Investigations, 2021 Edition**

# Introduction to Fire Investigator Certification

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FSTB Certification website: <https://dps.iowa.gov/divisions/state-fire-marshal/fire-service-training/certification-accreditation>

Certification Program email: [fstbcert@dps.state.ia.us](mailto:fstbcert@dps.state.ia.us)

FSTB Certification phone number: 515-727-3447

Candidates wishing to attain national certification for Fire Investigator through the Iowa Fire Service Training Bureau Certification System must start the process by attending an approved course of instruction then submitting an Examination Registration Form along with the Registration Fee of \$50 due at the time of registration.

The form is available on the certification page of the FSTB website (link provided above) or you can click on the below link to go directly to the form:

[Written Examination Registration Form](#)

The Written Registration Form is updated regularly to reflect the current schedule of examination locations and dates. Candidates are given twelve (12) months to complete each certification process. This time limit starts when the candidate takes their FIRST written examination in this level.

Starting July 1, 2019 the initial Registration Fee of \$50 allows the candidate one (1) attempt to pass the written examination. If the candidate fails the written exam, they are charged \$50 to retake **EACH** examination again.

If the twelve (12) month time limit expires and the candidate has not successfully completed all the requirements for this certification process, the candidate will have to restart the process. All information and documentation relating to the previous certification attempt will be removed from the FSTB database.

Projects must be submitted and approved within the twelve (12) months from when the candidate starts the certification process for this level.

# Fire Investigator - Certification Requirements

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## Prerequisites:

Candidates pursuing certification at the Fire Investigator level must meet the following conditions:

1. Be a current member of a fire, rescue or law enforcement organization within the State of Iowa or enrolled in a Fire Science program within the Iowa College System. All candidates pursuing certification shall be at least 18 years of age.
2. Primary job role as a Fire Investigator and/or direct involvement in the fire investigation process within your jurisdiction.
3. Formal course attendance of either the FSTB 2-week Basic Fire Investigation Course or an NFA Basic Fire Investigation course. Attendance MUST have been within the past 2 years for relevancy.

**An official picture ID (e.g., driver's license, state-issued identification card, military ID, etc.) must be presented for admittance to ANY written and practical examination.**

## Written Examination:

The Fire Investigator written examination is based on Job Performance Requirements listed in NFPA 1033 - *Standard for Professional Qualifications for Fire Investigator*, 2014 edition.

- The Fire Investigator written examination contains 100 multiple choice and/or true-false questions.
- Candidates are required to score a minimum of 70% on the written examination. Candidates who fail the written examination are responsible for notifying the FSTB of their desire to retake the written examination by registering for another examination site and paying another registration fee of \$50. Candidates may not take the written examination more than once per day.
- The below chart shows the maximum time allowed for the written examinations based on the number of questions on the examination.

Number of Questions	Maximum Time Allowed
25	30 Minutes
50	60 Minutes
75	90 Minutes
100	120 Minutes

## Project:

1. The Fire Investigator Project is based on Job Performance Requirements 4.2 through 4.7 listed in NFPA 1033 - *Standard for Professional Qualifications for Fire Investigator*, 2014 edition. This project is a comprehensive assignment that involves investigation of two fire incidents. The first fire incident investigation must be determined as accidental in nature. The second fire incident must be determined as incendiary in nature. The candidate will be required to complete a thorough investigation and documentation of both incidents. The candidate's documentation will be evaluated using the included score sheet. Items to also include with the Fire Investigator Project submission are a photo log, scene diagram and at least 5 photos of the investigation. Instructions and associated documents associated with the Fire Investigator Project are located at the end of this Procedures Guide.

## Recertification:

Once the candidate has received their certification as a Fire Investigator, the certification is valid for 3 years from the date of award. If recertification is desired, the following procedures **MUST** be completed **PRIOR** to the certification expiration date. If recertification is not completed prior to the expiration date of the current certification, the certification will be removed from the individual's permanent certification record in the FSTB database and reported to the accrediting bodies as being revoked.

1. Complete the Fire Investigator Recertification form, located on the Certification page of the FSTB website (under the Fire Investigator level at the bottom of the page).
2. Provide written documentation of 30 hours of untested (informal) training as a student or instructor, or any combination, in fire investigation related courses or seminars. This can be in the form of attendance certificates such as from the Iowa Chapter of the International Association of Arson Investigators (IAAI) annual conferences, or any other conference dealing with fire/arson investigation: **OR**
3. Provide written documentation of 15 hours of tested (formal) training (e.g., [CFITrainer.net](http://CFITrainer.net) course certificates); **AND**
4. Submit a letter from the applicant's supervisor listing the applicant's current job description and attesting to the fact that the primary duty of the applicant is fire investigation. The supervisor shall be experienced in fire investigation as well; will review each of the applicant's reports and shall verify the number of fires that the applicant has investigated during the past 3 year period. A minimum of 10 fires, regardless of the determination, have to have been investigated.

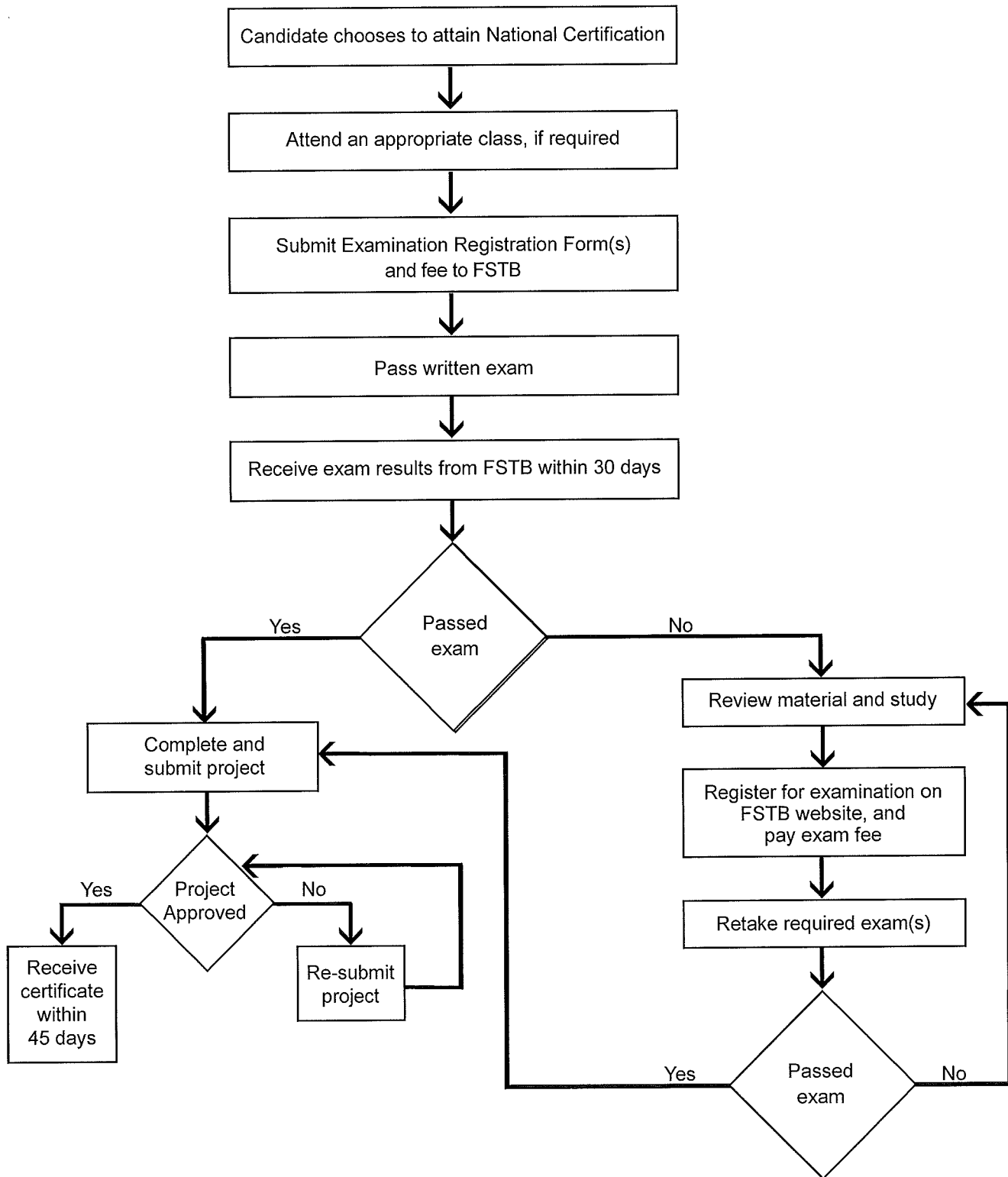
In the event an individual certified as a Fire Investigator chooses **NOT** to recertify or does not submit the required documentation for recertification prior to the expiration date of their certification; their certification as a Fire Investigator will be canceled and removed from the Iowa certification database. The IFSAC will also be notified to remove the associated seal number from the national certification database. In order to regain this certification, the individual would need to successfully complete the required Fire Investigator course mentioned previously in this guide. If the Fire Investigator course has been taken within the past 2 years, the individual is eligible to register for and take the written examination and then complete the associated project as described in this guide.

## References / Textbooks:

- IFSTA, *Fire Investigator*, 2<sup>nd</sup> Edition, 2010
- Jones & Bartlett, *Fire Investigator, Principles and Practice to NFPA 921 & 1033*, 5<sup>th</sup> Edition, 2019

**Please keep a copy of all your certification documentation for your own records.**

# Certification Flow Chart for Fire Investigator



You have twelve (12) months to complete this process or you start over.

**Iowa Fire Investigator Certification**  
**Fire Investigation Report (4.7)**  
**Scoring Matrix (100 Points Total)**

Must Obtain 80 Points (80%) to Pass

*Fire investigation reports submitted for certification require investigating a fire of a substantial source. Such fires include vehicles, room and contents, garage, or a type of structure. Mailboxes, hay bales, vegetation, portable toilets, and similar types of smaller fires cannot be used for this project.*

**RECOGNIZE THE NEED and DEFINE THE PROBLEM (4.1.2)**

**I. Notification, Scene Arrival/Departure, and Need for Fire Investigation (2 Pts)**

- a.  Date and time notified
- b.  Who notified and requested a fire investigator?
- c.  General type of fire (structure, vehicle, vegetation, injuries, fatality, etc.)
- d.  Address(s) of scene location(s)
- e.  Date and time of scene arrival
- f.  Date and time of scene departure
- g.  Scene Security (4.2.1)
- h.  Scene Safety Assessment (4.1.3)
- i.  Coordinated investigation with Incident Command, Fire, Police, and other pertinent officials (4.6.3)
- j.  Identify expert resources, if needed (4.1.4, 4.1.6)

**COLLECTING THE DATA (4.1.2)**

**II. Weather conditions (1 Pt)**

- a.  Temperature
- b.  Wind Speed / Direction
- c.  Humidity
- d.  Precipitation
- e.  Lightning

**III. Type of Structure or Vehicle Involved (2 Pts)**

- a.  Building Construction
- b.  Residential vs Rural
- c.  Ancillary Structures
- d.  Vehicles (Year, Make, Model)
- e.  VIN and License Plate Numbers of Vehicles Involved

**IV. Fire Suppression Activities (3 pts)**

- a.  Fire Departments on Scene
- b.  First Arriving Unit Suppression Strategy (Offensive/Defensive)
- c.  Rescue/Recovery of Victims
- d.  Ventilation Tactics
- e.  Salvage/Overhaul Activities

**V. Interviews (4.5) (12 pts)**

- a.  Contact Information of Owner/Renter of Property or Vehicle
- b.  Insurance Coverage
- c.  Medical and Social History (Owners/Renters/Victims)
- d.  Smoking History
- e.  Criminal History
- f.  Details of Daily Events Leading Up to the Discovery Fire (timeline)

**VI. Fire Scene Examination (4.2) (30 pts)**

- a. External Scene Exam (4.2.2) 15 pts
  - i.  Permissions (Owner Consent vs. Criminal Search Warrant) (4.1.5)
  - ii.  Systematic Approach (Least Damage to Most Damage)
  - iii.  Utilities (Natural Gas, Propane, Electric Panels/Wires, Telephone, Cable, Etc.)
  - iv.  Evidence (Non-FD Forced Entry, Gas Cans, Footprints)
- b. Internal Scene Exam (4.2.3) 15 pts
  - i.  Systematic Approach (Top to Bottom, Least Damage to Most Damage)
  - ii.  Utilities (Natural Gas, Propane, Electric Panel/Wires, Furnace, Water Heater) (4.2.8)
  - iii.  Appliances (4.2.8)
  - iv.  Cleanliness
  - v.  Interior Furnishings (Present or Absent,
  - vi.  Evidence (Gas Cans, Non-FD Forced Entry, etc.)
  - vii.  Arc Mapping in Structure Fires

**VII. Evidence Collection (4.4.1, 4.4.2) (10 Pts)**

- a.  Items Collected?
- b.  Location of Items Collected?
- c.  How Packaged?
- d.  Date/Time/ and Name of Collector
- e.  Chain of Custody Form (4.4.4)
- f.  Determine Lab Analysis for Evaluating Items (4.4.3)
- g.  Disposal of Evidence (4.4.5)

**ANALYZING THE DATA and DEVELOPING A HYPOTHESIS (4.1.2)**

**VIII. Origin Determination (4.2.4, 4.2.5) (10 pts)**

- a.  Area of Origin (identify all possible ignition sources in area and describe how each was ruled in/out)
- b.  Point of Origin
- c.  Use of Witness Statements
- d.  Use of Fire Patterns (4.2.4)
- e.  Use of Flow Paths
- f.  Use of Evidence and Scene Re-creation (4.2.7)

**TESTING THE HYPOTHESIS (4.1.2)**

**IX. Cause Determination (4.2.6) (10 Pts)**

- a.  Identify competent ignition source
- b.  Identify fuel(s) first ignited
- c.  Describe factors on how "a" and "b" were brought together
- d.  Describe fire spread
- e.  Test Hypothesis
- f.  If hypothesis doesn't fit, start over and reevaluate or collect more data

**SELECTING THE FINAL HYPOTHESIS (4.1.2)**

**X. Final Opinion as to Origin and Cause of Fire (4.6.1) (10 Pts)**

- a.  Summarize how the ignition source and fuel(s) first ignited came into contact with each to start the fire, in addition to witness statements, evidence, and other factors used to come to your conclusion.

**XI. Scene Documentation (4.3.1) (5 pts)**

- a.  Scene Sketch (not to scale)
- b.  Scene photographs (4.3.2)



**XII. Spelling, Grammar, and Punctuation (4.3.3) (5 pts)**

- a.  Shows professionalism of investigator and the quality of the report with respect to its content

**Please submit scene photographs (up to 5) for each of your two fire investigator certification reports. Submitted photographs should show overall scene, area/point of fire origin, key evidence, and burn patterns.**

**Please make sure to include negative corpus in your report. Also include information that may not have been a part of your scene to demonstrate your consideration of other factors going into your determination of origin and cause.**

**TOTAL POINTS AWARDED: \_\_\_\_\_ REVIEWED BY: \_\_\_\_\_**

**PASS / FAIL**

**DATE: \_\_\_\_\_**

Comments: