

National Fire Academy Criteria for Contract Instructor Selection

Course: Residential Sprinkler Plan Review (F/W0142)

Curriculum: Fire Prevention: Technical

The scope of this 2-day course looks at the following as the primary guidance for the approval of residential sprinkler systems:

- National Fire Protection Association (NFPA) 13, *Standard for the Installation of Sprinkler Systems*.
- NFPA 13D, *Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes*.
- NFPA 13R, *Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies*.
- International Residential Code (IRC) Section P2904.
- Manufacturer's Data Sheets.
- The ability to read and interpret the design is an essential element of preventive fire safety.

Criteria for Contract Instructor Selection

Only current instructors on the "Fire Inspection Principles" or "Commercial Fire Sprinkler System Plans Review" course list are eligible to teach this course

All new contract instructors or those wishing to expand their teaching portfolio must be instructionally dedicated to the Fire Prevention: Technical curriculum and cannot cross boundaries teaching National Fire Academy (NFA) curricula. Interest with other curricula will signal a voluntary withdrawal of teaching privileges from the Fire Prevention: Technical courses.

This curriculum teaches finely detailed and meticulously specific content concerning construction and maintenance codes, standards, guides, recommended practices, testing criteria, and manufacturers' specifications for the built environment. Instructors must be national subject matter experts, as compared to a local, fundamentally strong code enforcer, since the country has a geographically diverse array of students and code requirements.

A major characteristic necessary to serve in this instructional capacity is the willingness to coach the student cadre to success. The philosophy of the instructor is to mentor less knowledgeable individuals by transferring highly detailed information, using verbal skills coupled with visual graphics, to propel them to excellence. This curriculum does not support self-absorbed instructors appeasing their own interests but is squarely focused on the student-centered learning outcome.

New instructors shall be evaluated in 3 consecutive course deliveries in accordance with the NFA’s Contract Instructor Evaluation program. Existing contract instructors are subject to evaluation in accordance with this program.

1. Academic Requirement

- a. Bachelor’s degree from an institution that is accredited in fire protection technology, fire administration, fire science or similar program. Candidates are encouraged to have successfully completed this course in the last 3 years and/or served as an adjunct instructor (in training) in the course.
- b. Candidates with an associate degree from an institution that is accredited in fire protection technology, fire administration, fire science or similar program will be entertained on a case-by-case basis. Additional formal education consisting of 1 semester each of college-level algebra, fire protection hydraulics and physics must have been successfully completed. Candidates are encouraged to have successfully completed this course in the last 3 years and/or served as an adjunct instructor (in training) in the course.

2. Documented Technical Knowledge and Relevant Experience

- a. The candidate must have extensive experience as a fire inspector or plans examiner of fire protection systems for a local, state or national entity that is legally responsible for the enforcement of building and/or fire codes. Provide specific, quantifiable and qualifiable (simplistic to complex) examples of residential sprinkler plans reviewed and/or inspections performed. Experience as a tradesperson working in the industry with the process of designing, installation, inspecting, testing and maintenance is an acceptable alternative. List the examples in a tabular format such as:

Project name	Value, square footage or description	Codes and editions	Year
Acme Hotel	7-story high-rise hotel including swimming pool, restaurant and integrated parking garage, \$50 million	2018 IBC, 2018 IFC, 2018 LSC	2020
ACME Hardware and Warehouse	500,000-square-foot mercantile store and warehouse	2021 IBC, 2018 NFPA 1	Current

- b. The candidate should be experienced, proficient and knowledgeable of current issues in the field of expertise for the content of this course. Active participation with relevant national code and/or standard committees, such as NFPA and International Code Council (ICC) committees or state committees for adoption of building and fire codes, is highly recommended. List the examples in a tabular format such as:

Committees	Year(s)
NFPA 1, Building Systems and Special Occupancies subcommittee (alternate)	2016-present
Maryland State Fire Prevention Committee — Code Update	2018

- c. The candidate should have the necessary education and experience to be capable of presenting all units of the course. It is recognized that exceptions may occur where courses are of such a technical nature that no one person may be technically competent to instruct all units. Verifiable examples of professional licensure such as Professional Engineer can be provided. Professional certificates such as National Institute for Certification in Engineering Technologies Inspection and Testing of Water-Based Systems, Level II or III; NFPA Certified Water-Based Fire Protection System Inspection, Testing, and Maintenance; NFPA Certified Water-Based Systems Professional; or ICC Residential Fire Sprinkler Inspector/Plans Examiner can be submitted. List the information in a tabular format such as:

Licenses	Regulatory body	Dates
Professional Engineer	Maryland	1994-current
Certifications	Organization	Dates
Residential Fire Sprinkler Inspector/Plans Examiner	ICC	2000-current
Inspection and Testing of Water-Based Systems, Level II	NICET	2001-current

- d. Current knowledge of hydraulic calculation programs and hand calculations incorporating Hazen Williams or Darcy-Weibach formulas. Provide a narrative to support your knowledge and experience.
- e. Current design and inspection experience and knowledge of NFPA 13D, NFPA 13R and IRC P2904 for residential automatic sprinkler systems and NFPA 291, *Recommended Practice for Water Flow Testing and Marking of Hydrants*, for water supply requirements supplying fire suppression systems. Provide a narrative to support your knowledge and experience.

- f. Current knowledge of the behavior of fire and its effects on building materials and sprinkler systems; fire, heat, and smoke spread and travel in a structure; building construction classifications; and principles of protecting fire hazards listed by NFPA 13D, NFPA 13R and IRC P2904. Provide a narrative to support your knowledge and experience.

3. Documented Educational Instruction and Experience

Accepted formal instructional training, such as:

- a. State fire training certificate and courses taught with frequency/history. List the information in a tabular format such as:

Certificates	Year completed
Fire Instructor I (PA)	2015
Fire Instructor II (MD)	2016
IFSAC Fire Service Instructor I	2015
Pro Board Fire Instructor II	2017

- b. College instructor/professor's credential with courses designed/instructed. List the information in a tabular format such as:

Institution	Credential	Courses
University of Maryland	Lecturer	Fire Protection Hydraulics
Oklahoma State University	Adjunct Faculty	Building Construction Components

- c. College education instruction courses with a transcript supplied. List the information in a tabular format such as:

Institution	Course number	Course name
University of Maryland	TLPL 101	Inquiry Approach to Teaching STEM
University of Maryland Global Campus	EDTP 600	Foundations of Teaching for Learning

- d. A minimum of 48 hours of detailed, documented and successful fire/emergency services instruction listing each course and dates of delivery. List the information in a tabular format such as:

Courses	Frequency/history
Fire Inspection Principles 1 (48 hours)	Once/Jan. 23, 2020
Fire Inspector 1 (40 hours)	October 2016, April 2017, August 2017, January 2018

- e. Speaking engagements and/or presentations at national/state conferences for the fire service or other relevant professional organizations with a listing of topics and dates.

Conference	Topic	Year
NFPA Annual Conference	NFPA 25 Proposed Changes	2020
ICC Expo and Code Hearings	Marijuana Code Concerns	2019

4. Continuing Practice or Education

Ability to maintain currency in the field and the specific course by:

- a. Teaching a similar course at a training academy, college or university.
- b. Taking a similar course within the last 5 years.
- c. Developing a similar course within the last 5 years.
- d. Teaching the course at the NFA or in the field within the last 2 years.
- e. Writing and researching a paper or article related to the course topic for at least 1 of the fire service or related disciplines’ trade journals within the last 2 years.
- f. Attending and/or speaking at a conference related to the field at the local, state, tribal or national level within the last 3 years.
- g. Active participation with local/state/national building/fire code(s) or standard(s) committee(s).

Failure to provide approved documentation of ongoing training or instruction may result in revocation of the contract instructor status.

5. How To Submit an Application Package

Follow the instructions located on the website:

https://www.usfa.fema.gov/training/nfa/instructors_officials/criteria.html.

Application package(s) must be submitted to: fema-nfainstructorapp@fema.dhs.gov.