



American Fire Sprinkler Association

Fire Sprinkler Training Greenville, SC October 19-21, 2021



Obtain NICET-required Continuing Professional Development (CPD) credits and Continuing Education Units (CEU) for Deputy State Fire Marshal recertification in this seminar series hosted by the **South Carolina Fire Sprinkler Association** and presented by the **American Fire Sprinkler Association**.

LOCATION

Greenville Marriott
One Parkway E
Greenville, SC 29615

Continuing Education Credits

0.1 CEU for each hour of instruction
1.0 NICET CPD for each hour of instruction*
Class Times: 8:00am – 5:00pm

Seminar Schedule and Registration Fees

*The fees shown below are advance rates. Seminar rates listed are per day. If registering after **Oct. 12**, add \$20 per day to the rates shown below.*

	<u>AHJ</u>	<u>AFSA Member</u>	<u>NonMember</u>
Tuesday, Oct. 19	<u>\$145</u>	<u>\$175</u>	<u>\$235</u>
8:00 am – 12:00 pm	Plan Review		
1:00 pm – 5:00 pm	Project Management		
	Instructor: Ralph Foster, P.E.		
Wednesday, Oct. 20	<u>\$145</u>	<u>\$175</u>	<u>\$235</u>
8:00 am – 12:00 pm	Hydraulic Calculations		
1:00 pm – 5:00 pm	Seismic Protection of Fire Sprinkler Systems (2016 Ed.)		
	Instructor: Ralph Foster, P.E.		
Thursday, Oct. 21	<u>\$145</u>	<u>\$175</u>	<u>\$235</u>
8:00 am – 10:00 am	Understanding NFPA 14 (2016 Ed.): Standard for the Installation of Standpipe and Hose Systems		
10:00 am – 12:00 pm	Understanding NFPA 20 (2016 Ed.): Fire Pumps		
1:00 pm – 5:00 pm	NFPA 25 (2017 Ed.) Standard for the Inspection, Testing & Maintenance of Water-Based Fire Protection Systems		
	Instructor: John Denhardt, P.E., ET, FSFPE		

Send check payment to: AFSA • c/o Wells Fargo Bank • PO Box 200201 • Dallas, TX 75320-0201 or register online at www.firesprinkler.org/SCFSA21 or submit your registration form to Maricarmen Martinez at mmartinez@firesprinkler.org.

Name _____
Company _____
Address _____
City/ST/Zip _____
Phone _____ Fax _____
Cell Phone (in case of emergency) _____
Email _____

Grand Total \$ _____
MasterCard/Visa/AMEX: _____
Exp. Date _____ Security Code (3 or 4 digit #) _____
Zip Code (associated with billing address) _____
Print Name _____
Signature _____

Classes are subject to minimum registration. For more information contact Maricarmen Martinez.
mmartinez@firesprinkler.org • 214-349-5965 x132

Seminar Descriptions

All participants are **strongly encouraged** to bring the applicable NFPA standard with you to class. The course will focus heavily on the standard and will reference numerous NFPA figures and tables. Images from the NFPA standards will rarely be made available to you by the instructor or in-class materials. It is critical to bring the standard with you to class to refer to as the instructor leads.

Tuesday, Oct. 19 | 8:00 am – 12:00 pm

Plan Review

This seminar has been developed to give attendees core training and an introduction to the process of reading, interpreting, and determining the compliance of fire sprinkler system plans and hydraulic calculations with the applicable codes and standards for design and installation. The process involves a review of the knowledge of various topics contained in the 2016 edition of NFPA 13, *Standard for the Installation of Sprinkler Systems*. The recent revisions to NFPA 13 compel a more detailed approach to the review of plans and support documents. Discussion and information provided will include topics such as identification of various construction types, commodity classes, occupancy hazards, system types, and sprinklers themselves. This seminar relies heavily on class participation utilizing several class exercises to: 1) use established methods to determine coverage areas for various sprinkler spacings & the resulting minimum water discharge, 2) provide the math necessary to interpret water flow test results, 3) perform a review of a sample plan with supporting hydraulic calculations, followed by a review & discussion of deficiencies. Upon completion of this seminar, participants should be able to interpret compliance of fire sprinkler system plans and hydraulic calculations; identify coverage area maximums and sprinkler locations; identify various NFPA 13 defined construction types; describe potential plan deficiencies. Attendees should bring the NFPA 13 (2016 Ed.) standard, architectural scale, and calculator with exponential math capabilities. Plan reviewers, fire inspectors, insurance representatives, architects, system layout technicians, and engineers will all find this to be a very beneficial learning experience.

Required materials to bring: NFPA 13 (2016 Ed.), architectural scale, calculator with exponential math capabilities

4 Credit/Contact Hours: 4.0 CPDs (NICET); 0.4 CEUs

Tuesday, Oct. 19 | 1:00 pm – 5:00 pm

Project Management

Project Management has become one of the fastest-growing positions in the construction industry. No longer are general contractors the only ones who have such a position in their organization. In fact, almost every contractor on a job site today has someone who is designated with this title. Fire protection contractors are no different. Finding qualified people for this extremely demanding position is difficult. Therefore, many have turned to within their organizations to recruit and promote individuals to perform in this capacity. It is very common in today's construction environment to find key personnel, such as designers and field superintendents, in these project management roles as well. Most of them have had to learn the hard way until now. This program will introduce attendees to the world of project management. This presentation includes an overview of project management and more specifically the procedures and forms intended to be utilized in organizing and managing projects, limiting liability, and providing a systematic, team-spirited approach to problem-solving. This seminar is introductory and is intended for Owners, Project Managers, Superintendents, Operational People, Key Foremen, and Accounting Managers.

4 Credit/Contact Hours: 4.0 CPDs (NICET); 0.4 CEUs

Wednesday, Oct. 20 | 8:00 am – 12:00 pm

Hydraulic Calculations

Understanding the principles of hydraulic calculations is at the core of estimating, design, and system approval. This 8-hour seminar takes the attendee through the basics of hydraulic design including hazard analysis, design methods, criteria selection, water supplies, sprinkler flow, and pressure, friction loss, and pressure balancing. The attendees follow a step-by-step hydraulic calculation of a simple tree system to illustrate each principle. Due to the limited time, attendees are required to bring a basic scientific calculator and possess an understanding of how to use the function keys. This seminar will benefit engineers, plan reviewers, and layout technicians, particularly those working towards NICET certification.

Required materials to bring: scientific calculator

4 Credit/Contact Hours: 4.0 CPDs (NICET); 0.4 CEUs

Wednesday, Oct. 20 | 1:00 pm – 5:00 pm

Seismic Protection of Fire Sprinkler Systems (2016 Ed.)

This seminar will provide attendees with an introductory knowledge of the items to be considered when providing protection for automatic sprinkler systems from damage as a result of seismic events, including allowable omissions, and basic information on all six elements for such protection as provided in NFPA 13. Attendees will be familiar with the definitions of various system components and locate the basic information on mandatory flexible couplings, seismic separation assemblies, clearance, sway bracing (lateral, longitudinal, and risers), restraint of branch lines, and modifications to hanger requirements in systems requiring seismic protection.

Required materials to bring: NFPA 13 (2016 Ed.) and a handheld calculator

4 Credit/Contact Hours: 4.0 CPDs (NICET); 0.4 CEUs

Thursday, Oct. 21 | 8:00 am – 10:00 am

Understanding NFPA 14 (2016 Ed.): Standard for the Installation of Standpipe and Hose Systems

This 2-hour seminar focuses on the design and installation of standpipes while highlighting the 2016 edition changes of NFPA 14. This lecture-based seminar discusses key definitions, classes and types of standpipes, installation and design criteria, the requirements for plans calculations, and acceptance testing. Upon completion of this course, participants should be able to: explain the organization and key definitions in NFPA 14; describe the types and classes of standpipes and their related installation and design criteria; explain the requirements for plans and calculations for standpipes; and locate and apply acceptance testing requirements.

Required materials to bring: NFPA 14 (2016 Ed.)

2 Credit/Contact Hours: 2.0 CPDs (NICET); 0.2 CEUs

Thursday, Oct. 21 | 10:00 am – 12:00 pm

Understanding NFPA 20 (2016 Ed.): Fire Pumps

This 2-hour seminar focuses on the installation of stationary fire pumps and the requirements of the 2016 edition of NFPA 20. Pump basics are reviewed along with an extensive discussion regarding the sizing of fire pumps. Electric motor and diesel engine drivers are examined in depth along with their associated controllers. The installation requirements for fire pumps are also reviewed. Upon completion of this course, participants should be able to: explain the organization of NFPA 20 and the basic pump principles; locate and apply the installation requirements for stationary fire pumps, drivers, and controllers; and size fire pumps for the most economical application(s). This seminar benefits anyone who specifies, installs, or inspects stationary fire pumps.

Required materials to bring: NFPA 20 (2016 Ed.)

2 Credit/Contact Hours: 2.0 CPDs (NICET); 0.2 CEUs

Thursday, Oct. 21 | 10:00 am – 12:00 pm

NFPA 25 (2017 Ed.) Standard for the Inspection, Testing & Maintenance of Water-Based Fire Protection Systems

This half-day seminar provides a review of the major revisions to the 2017 edition of NFPA 25. The significant changes from the 2014 edition will be highlighted along with the reasons for the revisions. Attendees will participate in an in-depth discussion regarding the reformatting of the chapter summary tables along with the incorporation of inspection and testing scopes into the text of the standard and the relocation of common components such as gauges and supervisory devices to Chapter 13. Some of the significant revisions include the addition of annexes regarding tagging programs and data connectivity. New requirements regarding automated testing are covered along with changes to inspection frequencies for some system components. The 2017 edition also contains new ITM requirements for air compressors and the reporting requirements for fire pump testing. If you are a contractor, inspector, building owner or manager, AHJ, or engineer this seminar is for you.

Upon completion, attendees should be able to:

- Explain how the standard has been reorganized and reformatted
- Identify and locate the significant revisions to the standard
- Locate and apply the new requirements for air compressors and reporting of fire pump testing
- Locate and explain the new requirements for automated testing

Required materials to bring: NFPA 25 (2017 Ed.)

4 Credit/Contact Hours: 4.0 CPDs (NICET); 0.4 CEUs

Speaker Biographies & Additional Information

Ralph Foster, P.E.

Ralph Foster is the principal of Foster Engineering and Consulting and is a licensed Fire Protection Engineer. He earned his degree in Mechanical Engineering from the University of South Carolina. He worked for over 26 years in the public sector conducting inspections and life safety code analysis of buildings; analyzing active and passive fire suppression and detection systems; has extensive experience with Performance-Based Design. He worked for the SC State Fire Marshal's Office for over 18 years where he served as a Staff Engineer, Chief Deputy State Fire Marshal, Manager of Engineering Services, and taught both state and national certification courses. In 2017, Ralph was made a Fellow of the Society of Fire Protection Engineers. He is active in the SC Fire Marshals Association, the Central Savannah River Chapter of the SFPE, and the SC Fire Sprinkler Contractors Association. He retired from the SC Army National Guard after serving for 28 years and resides in Columbia.

John August Denhardt, P.E., ET, FSFPE, CWBSP

John August Denhardt, P.E., ET, FSFPE, CWBSP, is Vice President of Engineering and Technical Services for AFSA. He is responsible for strengthening AFSA's engineering and technical approaches to meeting member, industry, and operational priorities, with an emphasis on service, quality, and integrity. Denhardt is a Professional Engineer (P.E.) registered in the District of Columbia as well as the states of Delaware, Maryland, Pennsylvania, and Virginia. He is a NICET Level III in Automatic Sprinkler System Layout and Inspection and Testing of Water-Based Systems and an NFPA Certified Water-Based Systems Professional (CWBSP). A native of Maryland, Denhardt holds a Bachelor of Science degree in Fire Protection Engineering from the University of Maryland in College Park. He is a member of the NFPA 13 Sprinkler Discharge Committee, a Fellow in the Society of Fire Protection Engineers, and sits on the University of Maryland Department of Fire Protection Engineering's Board of Visitors.

Prior to accepting this position, Denhardt was employed by Strickland Fire Protection in Forestville, Maryland since 1994, overseeing large-scale projects and assisting with design and installation technical issues. He has served as an AFSA instructor, volunteered as a subject matter expert assisting with AFSA training updates, represented the Association on various technical committees, and authored numerous articles in the Association's flagship publication *Sprinkler Age*.

DIRECTIONS to the Greenville Marriott can be found at this link: <https://goo.gl/maps/UJ6AWKn6V4vbZGck7>

***NICET**

To find out if you can claim NICET CPD points for these courses, please review Section 2b of NICET's recertification policy here: <http://www.nicet.org/about-us/policies/policy30/>

CANCELATION POLICY

All cancelations must be made in writing on or before Oct. 12, 2021 in order to receive a refund. **Cancelations after Oct. 12, 2021 are not eligible for a refund, unless it is COVID-19 related.** You can submit your request to Maricarmen Martinez via email at mmartinez@firesprinkler.org.