



Training and Education Programs

Florida Fire Sprinkler Association
A Chapter of the National Fire Sprinkler Association

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Hosting NFSA Seminars

There are several ways that you can host an on-site, NFSA seminar. If you are an Authority Having Jurisdiction (AHJ), contractor, professional association such as building, or fire officials groups, or any business that needs water-based fire protection training, the Florida Fire Sprinkler Association, through the National Fire Sprinkler Association can meet your needs.

The first way is to be a host sponsor; the sponsor needs to provide a training location that will hold a minimum of 30 students, in a table and chair arrangement. The site needs an adequately sized screen for the room, power supply, comfortable heating or cooling system, adequate lighting controls, adequate blinds or curtains that allows control of outside lighting, and restroom facilities.

If you can provide a facility site that can meet the above conditions, NFSA will allow up to 3 free attendees from your organization or agency to attend or provide your organization with a contribution fee equivalent to 3 attendees. The sponsor can pick any of the 15 On-Site seminars available.

The sponsor is also asked to provide the morning refreshments. NFSA will provide the instructor, LCD projector, high quality workbooks, and professional certificates and will provide regional and nationwide advertising. The NFSA seminars are approved in many states for building and fire official training credits, ICC & NFPA continuing education credits, and NICET credits.

If you need other types of credit or certification NFSA will work with you to secure the need certifications. If you have any question you can contact Bob Treiber, NFSA's Director of Training at (937) 433 – 0099 or anyone of the NFSA 11 Regional Managers. If you go to the NFSA web site www.nfsa.org you will find a tab on the left side that will get you to any of the NFSA Regional Managers or to the NFSA training site by clicking on the Departments bullet.

Another way to sponsor a NFSA seminar is to do a contracted seminar that is based on per day fee and includes the cost of an instructor, instructor travel expenses, and projector. There is also a workbook fee per student.

The contracted sponsor is responsible for collecting any fee that they decide to charge for the seminar. Many sprinkler contractors conduct these seminars for the AHJs, and clients in their region. It provides an opportunity to get know each other and insures that the AHJ have good knowledge of the installation standards. If you are interested in a contract seminar please contact Bob Treiber, NFSA's Director of Training at (937) 433 – 0099. This catalog will provide you a brief description of the NFSA On-Site seminars available.

Florida Fire Sprinkler Association
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Water-Based Fire Protection Systems Course Offerings

NFSA seminars are approved in several states for (ICC) building and fire official (ceu's) continuing education training credits and also for those contractors and personnel needing NICET training credits. The NFSA training seminars and programs are also good for the NFPA recertification credits for fire inspectors, and certified fire protection specialist. If you have any questions concerning seminars contact Mike Repko, Seminar Coordinator at (845) 878-4200, email at seminars@nfsa.org; or Bob Treiber, Director of Training & Education at (937) 433-0099 or email at treiber@nfsa.org or Dr. Dave Bowman, Executive Director of the Florida Fire Sprinkler Association at (845) 519-7648 or bowman@nfsa.org

On Site Seminars

(Two Days) – NFPA 13 Overview & Intro to Plan Review: This two-day seminar provides attendees with an overview and understanding of how to comply with the design and installation requirements of NFPA 13 (1999-2002). Each student is given a sprinkler plan and is asked to conduct a basic evaluation of the plan for compliance with NFPA 13. The seminar also covers acceptance testing requirements for sprinkler systems. This seminar is intended for entry level and intermediate level students.

(One Day) – (NEW) NFPA 13, 13R and 13D, 2007 Update Seminar: This seminar details the latest and most significant changes to NFPA Standards 13, 13R, & 13D (2007 edition.) as compared to the 2002 edition of NFPA 13, 13R and 13D. The seminar will cover format changes and other significant changes such as seismic modification for compliance with ACSE 7, residential sprinkler obstructions, definition of a compartment, sizing limitations of pre-action systems, requirements for multiple and detached buildings and several other significant changes in the 2007 edition of NFPA 13. This seminar is intended for entry level, intermediate and advanced level students.

(One Day) – (NEW) Plan Review Procedures and Policies: This one-day seminar is intended to educate the attendee on how to conduct a plan review of a sprinklers system. The seminar covers the methodology and systematic approach to plan review procedures. The attendee will learn how to evaluate and analyze a fire sprinkler plan for compliance with NFPA 13. It is designed for intermediate level students or for those attendees that have completed the NFPA 13 Overview and Intro to Plan Review seminar prior to attending this seminar or for those who have a good comprehension of NFPA 13. Each attendee will receive copies of various sprinkler plan review check sheet that are used for compliance with NFPA 13 (1999 & 2002).

(One Day) - Hydraulics for Fire Protection: This one-day seminar is design to concentrate on one specific portion of the design phase of water-based fire protection systems, hydraulics. The seminar covers the theory and application of hydraulic calculations to prove the system design will meet the available water supply as specified in NFPA 13. This seminar is for intermediate leveled level students.

(One Day) - Fire Pumps for Fire Protection: This one-day seminar provides attendees with information about the design and installation of fire pump systems. The seminar covers the requirements of NFPA 20 and provides the student with the basic operational principals of fire pump. It also covers the various types of fire pumps and the drivers and controllers. The student will learn the requirements of NFPA 20 for conducting a fire pump acceptance test. This seminar is intended for entry level and intermediate level students.

(One Day) – Sprinkler Protection for General Storage: This one-day seminar provides the attendee with the requirements of NFPA 13 for the storage of pallets, palletized storage, solid pile storage, storage in bin boxes and shelve storage. The student will learn the classes of storage commodities. This seminar covers miscellaneous storage and general storage over 12 feet and is intended for entry level and intermediate level students.

(One Day) – Sprinkler Protection for Rack Storage: This one-day seminar provides the attendees with the requirements of NFPA 13 for the storage of materials on racks and movable shelving (Compacted Shelving) which does not meet the definition of normal shelving. This seminar is intended for intermediate and advanced level students. The entry level student should complete the General Storage seminar prior to enrolling in this seminar.

(One Day) – Sprinkler Protection for Special Storage: This one-day seminar provides the attendees with the requirements of NFPA 13 for the storage of flammable and combustible liquids (NFPA – 30), storage of aerosols (NFPA - 30B), tire storage, rolled paper, & cotton storage. This seminar is intended for intermediate to advanced level students. It is recommended that entry level students complete the General Storage seminar prior to enrolling in this seminar.

(One Day) – Inspection, Testing & Maintenance of Water-Based Fire Protection: This one-day seminar details the Inspection, Testing and Maintenance requirements of NFPA 25 (1998 & 2002 edition). This seminar covers the basic components and the required test frequency as detailed in NFPA 25. Students will be provided copies of example inspection forms for sprinklers systems, fire pumps, fire hydrants and standpipe systems. This seminar is intended for entry level and intermediate level students.

(One Day) – Residential Sprinklers, Homes to High-rise: This one-day seminar provides the attendee with knowledge on how to apply residential fire protection as specified in NFPA 13, NFPA 13R, & NFPA 13D. The student will learn how to apply the design and installation requirements for residential structure regulated by NFPA 13, 13R, & 13D. The intent and basic technology of the life safety sprinkler system will be covered. This seminar is intended for entry level and intermediate level students.

(One Day) – Sprinklers for Dwellings: This one-day seminar details the responsibilities of the designer, installing contractor, and the authority having jurisdiction for the proper layout and installation of a residential life safety sprinkler systems in one & two family dwellings as required in NFPA 13D. This seminar is intended for entry level and intermediate level students.

(One Day) – Design Advantage: This one-day seminar is intended for design professionals, such as architects and construction engineers responsible for building design. The seminar covers the cost saving and design advantages of using fire sprinkler systems in new construction site developments, new buildings and major renovation projects. The seminar details the code sections of the

International Building Code and NFPA 5000 where sprinkler advantages are available to the project designer. This seminar is for the entry level student.

(1/2 Day) – Standpipe Systems for Fire Protection: This half-day seminar provides the attendees with an overview of the design and installation of standpipe system as required in NFPA 14, the International Building Code and NFPA 5000. The design, layout, installation and acceptance testing requirements of NFPA 14 will be covered. This seminar is intended for entry level, intermediate and advanced level students.

(1/2 Day) – Underground Piping for Fire Protection Systems: This half-day seminar details the responsibility of contractor and authority having jurisdiction for the proper installation of underground piping as specified in NFPA 13 and NFPA 24. This seminar is intended for entry level and intermediate level students.

(1/2 Day) – Basic Seismic Protection for Sprinkler Systems: This half-day seminar describes the responsibility of the contractor and authority having jurisdiction for the proper installation of earthquake protection for sprinkler system as detailed in NFPA 13, the International Building Code and NFPA 5000. The student will learn the basic procedures for the installation of sway bracing and restraint of sprinkler systems as required by NFPA 13. This seminar is intended for entry level and intermediate level students.

(1/2 Day) – (NEW) Advanced Seismic Protection for Sprinklers: This half-day seminar builds on the material presented in the (basic) Seismic Protection For Sprinkler Systems seminar described above. It is intended for those individuals responsible for sprinkler system layout and AHJ that conduct plan review and inspection of seismic bracing. The seminar utilizes a series of student exercises that require the student to do design applications of clearance requirements, 4-way bracing applications, and sway bracing as specified in NFPA 13. The student will also learn how to apply seismic load factors as detailed in the International Building Code, NFPA 5000 and ASCE 7. This seminar is intended for intermediate and advanced level students or for those who have completed the basic Seismic Protection seminar.

(1/2 Day) – (NEW) Introduction to Sprinkler Systems: This half-day seminar is intended for those persons who have limited knowledge of sprinkler systems. It provides the attendee with knowledge to understand the basic components, types of sprinkler systems, types of sprinklers, terms/definitions, and related water-based standards. It allows the attendee to be better prepared for the other water-based protection seminars offered by NFSA and is intended for entry level student.

(1/2 Day) – (New) Fire Pump Layout & Sizing: This half-day seminar covers the criteria for proper layout and sizing of fire pumps in accordance with NFPA 20. The student will learn how to determine the pump suction pressure based upon available water supplies and system demands. The student will complete multiple exercise problems covering tank and municipal water supplies. This seminar is intended for intermediate and advanced level students.

(1/2) Day – (NEW) Foam Water Sprinkler System (NFPA 16): This half-day seminar covers the requirements for water-based fire protection utilizing low expansion foam. The seminar will provide an overview of the requirements of NFPA 16. The student will learn about the various types of

foam concentrates, foam proportioning criteria, foam supply time requirements, and installation requirements of NFPA 16. This seminar is intended for intermediate and advanced level students.

(1/2 Day) – NFPA 13, 13R and 13D (2002) Update: This half-day seminar details the latest and most significant changes to NFPA Standards 13, 13R, & 13D (2002 edition) as compared to the 1999 edition of NFPA 13, 13R, and 13D. This seminar is intended for entry level, intermediate level and advanced level students.

What DO I Need To attend? Each student is asked to bring the applicable NFPA Standard as specified for each seminar. Students who participate in the NFPA 13 Overview, Intro to Plan Review, Plan Review Procedures and Policies, General Storage, Rack Storage, Special Storage, Basic Seismic Protection and Advanced Seismic Protection, Residential Sprinklers – Home to High-rise and NFPA 13, 13R and 13D Update seminars are asked to bring the applicable NFPA 13 Standard (1999 or 2002 edition). The NFPA 13, 13R and 13D 2007 edition Update seminar you are asked to bring a copy of NFPA 13 2007 edition.

For those attending the Fire Pump seminar you are asked to bring a copy of NFPA 20, those attending the Inspection Testing & Maintenance seminar you are asked to bring NFPA 25, those attending Standpipe System seminar you are asked to bring NFPA 14. For the Sprinklers for Dwellings seminar the student is asked to bring a copy of NFPA 13D (2002 edition)

For those attending the Hydraulics for Fire Protection seminar, the attendee will need a calculator capable of doing multiplication, division, square root and scientific notation (exponential calculation / y^x). It is important that the student bring a calculator capable of doing the above mathematical functions and understand how to do all of the above functions on their calculator prior to attending the seminar.

Engineering On-site Seminars

These seminars are designed for the fire protection designer, layout technician, service technician and installers. These seminars will also further educate code officials and design professional in the area of water-based fire protection.

(3 Days) – Advanced Layout Technician: This three-day seminar is for those individuals who have completed the NFSA Layout technician course or who have an equivalent level of expertise. This seminar is design to take the student to a higher level of expertise and skill when dealing with sprinkler system design and layout.

(3 Days) – ITM NICET Certification: This three-day seminar has been developed for individuals that inspect, test, and maintain water-based fire protection systems. The purpose of this seminar is to assist individuals in advancing their career by reviewing material necessary for Level II certification in the NICET Subfield of ITM.

(2 Weeks) – Layout Technician: This two week seminar is taught by the NFSA engineering department and is for those individuals who have a good basic understanding of water-based fire protection systems; it can also be beneficial for those individuals seeking advance knowledge of fire sprinkler systems. It prepares the individual for the NICET II and III level exams.

The seminar covers NFPA 13, 13R, 13D, 20, 22, 24, requirements and the hydraulic design requirements and layout of a sprinkler system and fire pumps.
Other specialized seminars are also available from NFSA Engineering and Training & Education Division.

NFSA ACADEMY/Earn NICET Credits (On-Line www.nfsa.org)

Don't let a busy schedule interfere with your educational needs! The NFSA Academy gives you the opportunity to participate in training while eliminating the cost of traveling and hotel accommodations. This initiative borrows from our experience as the leading source of both in classroom and on-line fire sprinkler industry training. You get to select from over 100 modules. The student selects from one to five modules at a time, with each module lasting from 1 hour to 1½ hour. These module range from basic to advanced levels and are available day or night 24/7 for 30 days. For further information call Dawn at (845) – 878 – 4200 Ext. 133

“NFSA Leading the World in Water-Based Fire Protection Education”

OVERVIEW OF NFPA 13 AND INTRO TO PLAN REVIEW

This two-day seminar provides attendees with vital information on determining compliance with fire sprinkler system design and installation rules in NFPA 13. The seminar uses a basic sprinkler plan as a visual aid to help illustrate many of the rules/regulations of NFPA 13 and introduce the student to sprinkler plan review.

This is a basic to intermediate level class.

Overview – Assists the participants with understanding the responsibility of proper compliance with NFPA 13 in the design and installation of all types of fire sprinkler systems.

Goal – To increase the familiarity of the participants with the NFPA Standards as they relate to fire sprinkler systems and their components.

Learning Objectives for Participants:

- See how the Standard Classifies hazards and commodities and gives examples of each
- Identify the various components used in fire sprinkler systems and the regulations that govern them
- Identify the types of fire sprinkler systems, where used and their limitations
- Understand the principals and the regulations of spacing, obstructions & coverage limitations for various Sprinklers
- Understand minimum requirements for water supplies for sprinkler systems
- Understand the requirements for initial acceptance testing of sprinkler systems

Course Outline:

- Hazard and Commodity classification
- System Components & Hardware
- Description/Requirements for various System Types
- Installation Requirements for various Sprinklers
- Sprinkler Spacing, Location & Protection Limits for various Sprinklers
- Rules for Obstructions/Omissions for various Sprinklers
- Hanging, Bracing & Restraint of Sprinkler Systems
- Basic Requirements for Water Supplies
- Acceptance Testing

Experience Level – BASIC: This seminar is well suited for participants who are:

- Code Officials (Building/Fire/ Mechanical)
- Plan Reviewers
- Designers/Layout Technicians/Contractors
- Design Professional (Architects/Engineers)
- Building Owners/Managers
- Insurance Representatives

Prerequisites – For attendees who:

- Know and apply the codes/standards

- Have one to two years in code enforcement
- Possess a basic knowledge in construction
- Can read and understand basic construction drawings/technical documents

Overview of NFPA 13 and Introduction to Plan Review Syllabus

Day One:

- 8:00 - 8:30 Opening Remarks Course Overview
- 8:30 – 10:15 Hazard and Commodity Classifications
- 10:15 – 10:30 Morning Break
- 10:30 –12:00 System Components
- 12:00 - 1:00 Lunch (on your own)
- 1:00 – 3:00 System Components (Cont.)
- 3:00 - 3:15 Afternoon Break
- 3:15 – 5:30 System Types

Day Two:

- 8:00 - 10:00 Sprinkler Spacing, Location
- 10:00 - 10:15 Morning Break
- 10:15 – 12:00 Sprinkler Obstructions
- 12:00 - 1:00 Lunch (on your own)
- 1:00 – 3:15 Water Supplies
- 3:15 - 3:30 Afternoon Break
- 3:30 - 5:30 Acceptance Testing

NFPA 13, 13R, 13D Update 2007

This one day seminar describes the major changes that have occurred in the 2007 editions of NFPA 13, 13R & 13D to enhance and further develop the rules/requirements for the proper installation of fire sprinkler systems.

This is a Basic level class.

Overview – Assists the attendees with understanding the major changes included in the 2007 editions of NFPA 13, 13R and 13D.

Goals –To familiarize the attendees not only with the major changes, but with much of the logic and technical reasoning for the changes.

Learning Objectives for the participants:

- Understand the major changes to the standards & the reasoning supporting those changes

Course Outline:

- Some of the proposals that were not approved and the reasoning why
- Major changes to the design criteria in NFPA 13
- Major changes to the installation criteria in NFPA 13
- Changes to the NFPA 13R
- Changes to the NFPA 13D

Experience Level –BASIC: This seminar is well suited for participants who are:

- Code Officials (Building/Fire/Mechanical)
- Plan Reviewers
- Designers/Layout Technicians/Contractors
- Design Professionals (Architects/Engineers)
- Building Owners/Managers
- Insurance Representatives

Prerequisites – For attendees who:

- Know and apply the codes/standards
- Have one to two years in code enforcement
- Possess a basic knowledge in construction
- Can read and understand basic construction drawings/technical documents

NFPA 13, 13R 13D Update 2007 Syllabus

8:00 – 9:15	New discharge and Support Criteria
9:15 – 10:00	Earthquake and Residential Changes
10:00 – 10:15	Break
10:15 – 11:15	Using the changes in NFPA 13
11:15 – 12:00	Changes in 13R and 13D
12:00- 5:30	Continued

HYDRAULICS FOR FIRE PROTECTION

This one-day program is designed to concentrate on one portion of the design phase of water based fire protection systems, the hydraulics. This seminar discusses theory and application of hydraulic calculations, the various decisions that can affect them, and how to prove the design of the system will meet the water supply available as describe in NFPA 13 by using actual problems. The program also offers various alternatives to solving a problem and shows the comparison among them, and offers some basic methods to check the accuracy of hydraulic calculations.

PARTICIPANTS WILL NEED A COPY OF NFPA-13 (1999 or later edition)

PARTICIPANTS WILL NEED A CALCULATOR WITH A (y)^x FUNCTION KEY

This is an intermediate level class.

Overview –Provides the attendees with a basic knowledge of the various principles involved in the specific part of sprinkler design dealing with hydraulic calculations and the things that can affect them. The course is specifically designed to incorporate actual problems into the course material. The course emphasizes gaining familiarity with the principles involved by using practical application problems that build in to an overall understanding of the entire process. The program uses a step by step approach to continually build upon and broaden the participants' understanding of the entire design process.

Goals – To familiarize the participants with hydraulic principles so they may feel comfortable in applying their knowledge and understanding to actually developing and/or reviewing calculations for water based fire protection system.

Learning objectives for participants:

- Understand the basic theories, principles & definitions used in hydraulics
- Understand the basic mathematic principles used in hydraulic calculations
- Understand basic causes for pressure losses & how to determine the amount of those losses
- Become familiar with the variables that can affect hydraulics
- Understand how to determine the size & location of a design area
- Understand the principles involved in evaluating water supplies
- Understand how to actually solve a hydraulic calculation problem by hand
- Understand how different approaches to the same problem can affect the hydraulics of system
- Become familiar with several methods of spot checking hydraulic calculations

Course Outline

- Basic theory of hydraulics
- Definitions used in hydraulics
- Types of pressure losses w/examples & problems
- Basic math relationships used in hydraulics
- Hydraulic principles used in sprinkler calculations
- Evaluating water supplies

- Decisions that affect hydraulics of a system
- Basic steps for hydraulic calculations
- Step by step actual hand calculation problem
- Comparative analysis of different hydraulic approaches to a problem
- Tips for checking hydraulic calculations

Experience Level –INTERMEDIATE: This seminar is well suited for participants who are:

- Code Officials (Building/Fire/Mechanical)
- Plan Reviewers
- Designers/Layout Technicians/Contractors
- Design Professionals (Architects/Engineers)
- Building Owners/Managers
- Insurance Representatives

Prerequisites – For attendees who:

- Know and apply the codes/standards
- Have one to two years in code enforcement
- Possess a basic knowledge in construction
- Can read and understand basic construction drawings/technical documents

Hydraulics for Fire Protection Syllabus

8:00 - 8:30	Introduction and Course Overview
8:30 - 9:15	Hazard and Commodity Classifications
9:15 - 9:45	Theory of Hydraulic Calculations for Fire Protection System Selection of the Hydraulic Most Demanding Area Number of Sprinklers to Operate based on Spacing Charting the Water Supply Information.
9:45 - 10:00	Break
10:00 - 11:00	Basic Math and Basic Hydraulics The K-Factor Determining Flow in GPM Determining Required Pressures Determining Friction Loss
11:00 - 12:00	Design Options for Hydraulically Calculating Fire Sprinkler systems Area Density Method Room Design Method Residential Method Large Drop Method ESFR Method Dry System Method

Quick Response Method
Storage Methods

12:00 - 1:00	Lunch
1:00 - 2:30	Sizing the Remote area Hydraulic Calculations Step by Step
2:30 - 2:45	Break
2:45 - 4:30	Hydraulic Calculations Step by Step

FIRE PUMPS FOR FIRE PROTECTION

This one-day program provides attendees with vital information regarding the various requirements governing the proper design and installation of fire pumps. Each of the major components of a pump system is described & explained to provide the attendees with a clear understanding of their respective purposes and the part each plays in the overall function of the system. NFPA 20 and the NFPA Fire Pump Handbook are used as reference material.

This is an intermediate level class.

Overview – Assists the participants in gaining an understanding of the need for fire pumps and to gain an understanding of how each component in a fire pump system plays an integral part in the overall design of the system.

Goals – To familiarize the attendees with the rules/regulations/requirements contained in NFPA 20 and associated standards/codes to properly design/install/test a fire pump system.

Learning Objectives for participants

- Gain a clear understanding of the basic definitions & hydraulic principles in fire pump applications
- Understand the different types of pumps/motors/controllers and the requirements used for each respective application
- Understand the description/definition/purpose of each pump component and appurtenance & the contribution each makes to achieving the overall goal of the system
- Understand the basic hydraulic formulae needed for fire pump design
- Understand the criteria for properly sizing a fire pump
- Understand the proper acceptance testing procedures for both pumps & controllers

Course Outline

- Basic definitions & hydraulic formulae
- Pump placement & sizing
- Definitions/descriptions of pump components/appurtenances
- Types of pumps/drivers
- Electric motors & controllers
- Diesel motors & controllers
- Brief overview of steam turbines
- Acceptance testing of pumps/controllers

Experience Level –INTERMEDIATE: This seminar is well suited for participants who are:

- Code Officials (Building/Fire/Mechanical)
- Plan Reviewers
- Designers/Layout Technicians/Contractors
- Design Professionals (Architects/Engineers)
- Building Owners/Managers
- Insurance Representatives

Prerequisites – For attendees who:

- Know and apply the codes/standards
- Have one to two years in code enforcement
- Possess a basic knowledge in construction
- Can read and understand basic construction drawings/technical documents

Pumps For Fire Protection Syllabus

- 7:30 - 8:00 Registration
- 8:00 - 8:30 Opening Remarks and Seminar Overview
- 8:30 - 9:30 Types of Fire Pumps
- 9:30 - 10:00 Pump Sizing and Placement
- 10:00 - 10:15 Morning Break
- 10:15 - 11:00 Piping and Appurtenances
- 11:00 - 12:00 Electric Motors
- 12:00 - 1:00 Lunch (on your own)
- 1:00 – 2:00 Diesel Engines
- 2:00 - 3:00 Electric and Diesel Controllers
- 3:00 - 3:15 Afternoon Break
- 3:15 - 4:30 Acceptance Testing

SPRINKLER PROTECTION FOR GENERAL STORAGE

This one-day program familiarizes attendees with using the standard to determine the basic requirements for sprinkler systems in protecting General Storage warehouse occupancies. The course is specifically designed to address the protection requirements for Class I-IV commodities and plastics that are Solid Piled, Palletized, in Bin Boxes or on Shelves. The course emphasizes gaining familiarity with the standard by solving practical application problems. A guide is provided to the participants to assist them in improving their ability to find appropriate tables in the standard.

PARTICIPANTS WILL NEED A COPY OF NFPA-13 (1999 or later edition)

This is an intermediate to advanced level class.

Overview – Assists the participants with understanding the design criteria used to protect General Storage warehouses by using the standard to solve problems.

Goal – Familiarize the participant with utilizing the rules that govern General Storage occupancies.

Learning Objectives for Participants:

- See how the Standard classifies commodities & gives examples of each
- Understand the different types of pallets, what effect they have on commodity classification, how to differentiate among them & the problems associated with protecting idle pallets
- Become familiar with the use of density/area curves for protecting Class I-IV commodities with Standard Spray Sprinklers
- Become familiar with the decision tree, table & rules for protecting Plastics with Standard Spray Sprinklers
- Become familiar with the design requirements for General Storage when using Large Drop, Special Application Sprinklers Control Mode or ESFR sprinklers

Course Outline

- Commodity classification
- Protection options for pallets
- Miscellaneous Storage definition/protection
- General Storage Definitions
- Selecting appropriate density/area curves for use in protecting General Storage Class I-IV Commodities
- Protection of plastic in General Storage
- Use of Large Drop and Special Application Control Mode Sprinklers in protecting General Storage
- Use of ESFR Sprinklers in protecting General Storage

Experience Level –INTERMEDIATE to ADVANCED: This seminar is well suited for participants who are:

- Code Officials (Building/Fire/Mechanical)
- Plan Reviewers
- Designers/Layout Technicians/Contractors

- Design Professionals (Architects/Engineers)
- Building Owners/Managers
- Insurance Representatives

Prerequisites – For attendees who:

- Know and apply the codes/standards
- Have one to two years in code enforcement
- Possess a basic knowledge in construction
- Can read and understand basic construction drawings/technical documents

Sprinkler Protection for General Storage Syllabus

8:00 – 8:30 Introduction & Class Overview

8:30 – 10:00 Idle Pallets & Miscellaneous Storage

10:00 – 12:00 Standard Spray Sprinklers Protection of Class I-IV

12:00 – 1:00 Lunch

1:00 – 2:30 Standard Spray Sprinklers Protection of Class I-IV (continued)

2:30 – 3:00 LD & ESFR Sprinkler Protection of Class I-IV

3:00 – 4:15 Standard Spray Sprinklers Protection of Plastic

4:15 – 5:00 LD & ESFR Sprinkler Protection of Plastic

SPRINKLER PROTECTION FOR RACK STORAGE

This one-day program familiarizes attendees with using the standard to determine the basic requirements for sprinkler systems in protecting Rack Storage warehouse occupancies. The course is specifically designed to address the protection requirements for Class I-IV commodities and plastics that are in Single, Double & Multi-Row Racks. The course emphasizes gaining familiarity with the standard by solving practical application problems. A guide is provided to the participants to assist them in improving their ability to find appropriate tables in the standard.

PARTICIPANTS WILL NEED A COPY OF NFPA-13 (1999 or later edition)

This is an intermediate to advanced level class.

Overview – Assists the participants with understanding the design criteria used to protect Rack Storage warehouses by using the standard to solve problems.

Goal – Familiarize the participant with utilizing the rules that govern Rack Storage occupancies.

Learning Objectives for Participants:

- Understand the definitions used in Rack Storage applications
- Understand the different levels of shelving & its effect on protecting Rack Storage
- Understand the role played by in-rack sprinklers, the rules applicable to them, and how to determine their location
- Become familiar with the use of density/area curves for protecting Class I-IV commodities with Standard Spray Sprinklers
- Become familiar with the decision tree, tables & rules for protecting Plastics with Standard Spray Sprinklers
- Become familiar with the design requirements for Rack Storage when using Large Drop, Special Application Control Mode or ESFR sprinklers

Course Outline

- Definitions and terminology for Rack Storage
- Sprinkler protection for Class I-IV commodities 25 feet or less in height using Standard Spray, Large Drop, Specific Application Control Mode & ESFR sprinklers
- Sprinkler protection for Class I-IV commodities over 25 feet height using Standard Spray, Large Drop, Specific Application Control Mode & ESFR sprinklers
- Sprinkler protection for plastics stored 25 feet or less in height using Standard Spray, Large Drop, Specific Application Control Mode & ESFR sprinklers
- Sprinkler protection for plastics stored over 25 feet height using Standard Spray, Large Drop, Specific Application Control Mode & ESFR sprinklers
- Properly build & space a system of in-rack sprinklers where required

Experience Level –INTERMEDIATE to ADVANCED: This seminar is well suited for participants who are:

- Code Officials (Building/Fire/Mechanical)
- Plan Reviewers

- Designers/Layout Technicians/Contractors
- Design Professionals (Architects/Engineers)
- Building Owners/Managers
- Insurance Representatives

Prerequisites – For attendees who:

- Know and apply the codes/standards
- Have one to two years in code enforcement
- Possess a basic knowledge in construction
- Can read and understand basic construction drawings/technical documents

Sprinkler Protection for Rack Storage Syllabus

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|---------------|---|
| 8:00 – 8:30 | Introduction & Class Overview |
| 8:30 – 9:30 | Definitions |
| 9:30 – 11:00 | Standard Spray Sprinklers Class I-IV up to and including 25 feet |
| 11:00 – 12:00 | Large Drop, Special Application, and Early Suppression Fast Response Sprinklers
Rack Storage of Class I-IV storage materials up to and including 25 feet |
| 12:00 – 1:00 | Lunch |
| 1:00 – 2:15 | Standards Spray Sprinklers for Group A Plastic Materials up to and including 25 feet |
| 2:15 – 2:30 | Large Drop, Special Application, and Early Suppression Fast Response Sprinklers
for group A Plastic Materials up to and including 25 feet |
| 2:30 – 3:45 | Standard Spray Sprinklers for Group A Plastic Materials over 25 feet |
| 3:45 – 5:00 | Large Drop, Special Application, and Early Suppression Fast Response for Group A
Plastic Materials over 25 feet |

INSPECTION, TESTING AND MAINTENANCE OF WATER BASED FIRE PROTECTION SYSTEMS

This one-day seminar provides the attendees with vital information related to the procedures and responsibilities for properly inspecting, testing & maintaining a water based fire protection system. The seminar also discusses the various responsibilities of the building owner, contractor and authority having jurisdiction (AHJ) as they relate to the requirements contained in NFPA 25.

This is a basic level class.

Overview – Assists the attendees in understanding the requirements for the proper procedures/timelines involved in the inspecting, testing & maintaining a water based fire protection system.

Goals – To increase the familiarity of the attendees with the basic rules/regulations governing the proper procedures to be used in conducting routine inspections, tests or maintenance of fire protection systems.

Learning Objectives for the participants:

- Understand the need for and the responsibilities associated with inspecting, testing & maintaining water based fire protection systems
- Clearly identify the various responsibilities associated with performing the required tasks identified in the standard
- Develop the ability to look at a system and its various components from the perspective of inspection, testing & maintenance instead of from the perspective of installation
- Understand the differences among the requirements for different types of systems
- Clearly identify the steps needed to be followed when a system becomes impaired

Course Outline

- Brief history of the need & development of NFPA 25
- Basic responsibilities for reports & record keeping
- A basic overview of system components from the perspective of inspecting, testing & maintaining them, including sections on sprinkler systems, fire pumps, water storage tanks, private fire service mains/appurtances & standpipe systems
- The procedures to be followed in case of impairments to the system
- A brief explanation of the differences in inspecting, testing & maintaining fixed water spray and foam water systems due to the different hazards associated with them

Experience Level –BASIC: This seminar is well suited for participants who are:

- Code Officials (Building/Fire/Mechanical)
- Plan Reviewers
- Designers/Layout Technicians/Contractors
- Design Professionals (Architects/Engineers)
- Building Owners/Managers

- Insurance Representatives

Prerequisites – For attendees who:

- Know and apply the codes/standards
- Have one to two years in code enforcement
- Possess a basic knowledge in construction
- Can read and understand basic construction drawings/technical documents

Inspection, Testing and Maintenance of Water Based Fire Protection Systems Syllabus

- 7:30 - 8:00 Registration
- 8:00 - 8:30 Opening Remarks and Seminar Overview
- 8:30 - 9:30 Responsibilities of the Owner, Sprinkler Contractor, and the AHJ, Reports, and Record Keeping, Defining Inspection, Testing and Maintenance
- 9:30 - 10:00 Inspection, Testing and Maintenance of Common Components
- 10:00 - 10:15 Morning Break
- 10:15 - 11:00 Inspection, Testing and Maintenance of Common Components (Cont.)
- 11:00 - 12:00 Inspection, Testing, and Maintenance of Fire Sprinkler Systems (Wet, Dry, Pre-Action and Deluge Systems)
- 12:00 - 1:00 Lunch (on your own)
- 1:00 - 1:30 Inspection, Testing and Maintenance of Fire Pumps
- 1:30 - 2:00 Inspection, Testing and Maintenance of Private Service Mains and Water Storage Tanks
- 2:00 - 3:00 Inspection, Testing and Maintenance of Standpipes and Hose Systems
- 3:00 - 3:15 Afternoon Break
- 3:15 - 3:45 Impairments and restoration of systems
- 3:45 - 4:30 Inspection, Testing and Maintenance of Fixed Water Spray Systems and Foam Water Systems

RESIDENTIAL SPRINKLERS HOMES TO HIGH-RISE

This one day seminar provides the participants with an overview of the residential fire problem in America. The seminar addresses the causes and effects of that problem in the past, the present & the future. The seminar explains the history of the residential sprinkler and how it was designed to specifically address the life safety considerations in residential fires. The attendee is given an overview of the basic differences among residential designs and installations applied in accordance with NFPA 13, 13R & 13D.

This is a basic level class.

Overview – Provides the attendees with the understanding of the residential sprinkler and its characteristics that provide life safety in residential dwelling units.

Goal – To familiarize the attendees with the requirements in the various NFPA Standards that govern sprinkler system application in residential dwelling units.

Learning Objectives for Participants:

- Gain a clear understanding of the residential fire problem in America
- Understand the differences between using sprinklers to control release and using them to control the environment
- Gain an understanding of the development, testing, application & design criteria for residential sprinklers
- Understand how residential sprinklers are applied through the various standards to provide life safety verses property conservation

Course Outline:

- Review the residential fire problem
- Residential sprinklers and what differentiates them from other sprinklers
- Quick response technology
- Testing requirements for residential sprinklers
- Fire sprinklers and related components
- Various options for water supplies
- Residential sprinkler designs for NFPA 13, 13R & 13D & the differences among them
- Sprinkler piping & installation practices
- Acceptance testing

Experience Level –BASIC: This seminar is well suited for participants who are:

- Code Officials (Building/Fire/Mechanical)
- Plan Reviewers
- Designers/Layout Technicians/Contractors
- Design Professionals (Architects/Engineers)
- Building Owners/Managers
- Insurance Representatives

Prerequisites – For attendees who:

- Know and apply the codes/standards
- Have one to two years in code enforcement
- Possess a basic knowledge in construction
- Can read and understand basic construction drawings/technical documents

Residential Sprinklers Homes to High-Rise Syllabus

8:00 - 8:30	Introduction and Course Overview
8:30 - 9:15	Review of the U.S. Residential Fire Problems and Prevention Methods
9:15 - 9:45	New Technology Update Fire Sprinklers and related components Quick Response Sprinkler technology Residential Sprinklers and why they are different
9:45 - 10:00	Break
10:00 - 11:00	Residential Sprinkler Systems Using NFPA Standard 13D and 13
11:00 - 12:00	Residential Sprinkler Systems Using NFPA Standard 13R
12:00 - 1:00	Lunch
1:00 - 1:30	Evaluating Water Supplies
1:30 - 2:30	Hydraulic Calculations Step by Step for Residential Systems
2:30 - 2:45	Break
2:45 - 4:30	Hydraulic Calculations Step by Step continued

Sprinklers For Dwellings

This one-day seminar analyzes the basic requirements used in designing, installing & accepting sprinkler systems in one & two family dwellings & manufactured housing. The program addresses the basic responsibilities of the designer, installer, authority having jurisdiction (AHJ) & owner for the proper installation of these systems. The program discusses the issues behind developing a life safety type sprinkler system to specifically address the problems associated with fire deaths in the U.S.

This is a basic level seminar.

Overview – Assists the participants in gaining a clear understanding of how the proven principles of sprinkler systems are applied to developing life safety systems specifically focused on dwellings. **Goals** – To familiarize the attendees with a clear understanding of the basic principles involved in designing/installing sprinkler systems for dwellings in accordance with NFPA 13D

Learning Objectives for participants:

- Gain an understanding of the residential fire problem in the U. S.
- Understand the basic principles of NFPA 13D and how it relates to life safety verses property conservation
- Develop a familiarity with the components & types of systems used in NFPA 13D systems
- Gain an understanding of the basic design/installation criteria and options available for applying NFPA 13D systems
- Develop an understanding of the basic hydraulic principles used in NFPA 13D systems
- Become familiar with the final acceptance requirements for NFPA 13D systems

Course Outline:

- An overview of the residential fire problem
- Overview of residential sprinkler systems & how they provide life safety
- Rules & definitions applicable to NFPA 13D
- System components
- Basic design/installation criteria for NFPA 13D systems
- Various piping installations & options
- Basic hydraulic principles involved in NFPA 13D systems
- Final assemblies

Experience Level –BASIC: This seminar is well suited for participants who are:

- Code Officials (Building/Fire/Mechanical)
- Plan Reviewers
- Designers/Layout Technicians/Contractors
- Design Professionals (Architects/Engineers)
- Insurance Representatives
- Dwelling owners
- Installers
- Insurance representatives

- Real estate professionals

Prerequisites – For attendees who:

- Know and apply the codes/standards
- Have one year in code enforcement
- Possess a basic knowledge in construction
- Can read and understand basic construction drawings/technical documents

Sprinkler Protection for Dwellings Syllabus

8:00 – 8:20	Introduction
8:20 – 9:30	Residential fire problem
9:30 – 10:15	Residential sprinkler system overview
10:15 – 10:30	Morning break
10:30 – 12:00	Definitions and rules of NFPA 13D
12:00 – 1:00	Lunch
1:00 – 2:45	System component overview
2:45 – 3:00	Afternoon break
3:00 – 3:30	Basic hydraulics
3:30 – 4:30	Piping and installation practices
4:30 – 5:30	Final inspection

DESIGN ADVANTAGE

This is a one-day program. Participants will increase their knowledge of the advantage of installing fire sprinkler systems in buildings under construction and their advantages of reducing the cost of the building.

This is a basic level class.

Goal – Is to familiarize the participant with the cost savings in construction by using alternatives in the building code because the building is protected with a fire sprinkler system.

Learning Objectives – Participants will learn:

- Advantages of installing fire sprinkler systems
- Classify the occupancy use of a building
- Classify the type of construction
- Which buildings require fire sprinkler installation
- Advantages in all of the different Building Codes
- Advantages in design of exits
- Site planning design options

Course Outline

- Fire sprinkler advantages
- Building code application
- Occupancy classification
- Buildings that require fire sprinklers
- Using the building code to reduce cost
- Types of construction
- Egress design options
- Water supplies and Standpipes
- Understanding basic sprinkler technology

Experience Level – This seminar is best suited for participants who are:

- Code Officials
- Designers/Contractors
- Design Professionals Architects/Engineers
- Building Owners/Managers
- Insurance Representatives

Prerequisites – For attendees who:

- Knows and applies the codes
- Has one to two years in code enforcement
- Possesses a basic knowledge in construction
- Can read and understand basic construction drawings

The Design Advantage Syllabus

- 8:00 - 8:30 Welcome and Introduction and Seminar Overview
Case Studies Benefits of Installing Fire Sprinkler Systems
(Making the Decision to Install Sprinklers Up Front)
* Examples Showing Reduced Property Loss
* Examples Showing Reduced Casualties
* Examples Showing Reduced Insurance Premiums
* Examples Showing Reduced Construction Cost
* Examples Describing Sprinkler Use During Renovations
* Examples for Effective Site Development Land Use
* Specifications for Sprinklers Using the CSI Format
- 8:30 - 9:00 A Review of the Various Occupancy Type Definitions
- 9:00 - 9:30 A Review of the Various Construction Type Definitions
- 9:30 - 10:00 Determining Allowable Height and Area for Buildings
Using Fire Sprinkler Systems
(Including Street Frontage Increases)
- 10:00 - 10:15 Morning Break
- 10:15 - 12:00 Exiting Options When Using Fire Sprinklers
* Determining the Occupant Load
* Remoteness of Exits
* Travel Distance
* Fire Resistive Corridors and Exit Passageways
- 12:00 - 1:00 Lunch
- 1:00 - 2:00 Sprinkler Requirements Based on Occupancy
- 2:00 - 3:00 Sprinkler Requirements Based on Building Design
(Atrium, Shopping Malls etc. Residential)
- 3:00 - 3:15 Afternoon Break
- 3:15 - 4:00 The Latest in Sprinkler Technology (Using Section 8 Fire Sprinkler Guide)
*From Fire Control to Suppression
*From Property Protection to Life Safety Protection

STANDPIPE SYSTEMS FOR FIRE PROTECTION

This half day program provides the participant with basic knowledge governing the requirements for design, layout, installation and acceptance testing of standpipe systems using NFPA 14-Standard for the Installation of Standpipe and Hose Systems. The program also covers the basic requirements for when the International Building Code and NFPA 5000 require standpipe systems. The program describes the five types and three classes of standpipe systems.

This is a basic to intermediate level class.

Overview– Assists the participants with understand the criteria required in design, layout, installation and acceptance testing of standpipe systems.

Goal – To increase the familiarity of the participant with the NFPA Standard and the various Model Building Codes as they relate to standpipe systems and their components.

Learning Objectives for participants:

- Understand intent of standpipe systems
- Distinguish among the three user classes of standpipe systems
- Distinguish among the five types of standpipe systems
- Understand the various components of a standpipe system
- Know how to determine when standpipe systems are required
- Understand basic requirements for design criteria for standpipe systems
- Understand installation requirements
- Understand the requirements for initial acceptance testing of standpipe systems

Course Outline

- Purpose & Intent of Standpipe Systems.
- Classification of Standpipe Systems
- Types of Standpipe Systems & Description of each
- Where Standpipe Systems are required using the IBC & NFPA 5000
- System Components & Hardware
- Design Criteria & System Demand
- Basic Requirements for Water Supplies & Fire Department Connections
- Acceptance Testing

Experience Level –Basic to Intermediate: This seminar is well suited for participants who are:

- Code Officials (Building/Fire/ Mechanical)
- Plan Reviewers
- Designers/Layout Technicians/Contractors
- Design Professionals (Architects/Engineers)
- Building Owners/Managers
- Insurance Representatives

Prerequisites – For attendees who:

- Know and apply the codes/standards

- Have one to two years in code enforcement
- Possess a basic knowledge in construction
- Can read and understand basic construction drawings/technical documents

Standpipe Systems for Fire Protection Syllabus

7:30 – 8:00	Registration
8:00 – 8:15	Introduction
8:15 – 9:45	Intent & Purpose of Standpipe Systems Definitions, Classes & Types of Standpipe Systems When Standpipe Systems are Required (IBC & NFPA 5000)
9:45 – 10:00	Break
10:00 – 12:00	Components of Standpipe Systems Underground & Aboveground Piping Valves Pressure Reducers Hose Connections Hose Cabinets Fire Department Connections Basic Requirements the Design and Layout of Standpipe Systems Water Supplies Acceptance Testing & Periodic Maintenance

UNDERGROUND PIPING FOR FIRE PROTECTION SYSTEMS

This half day seminar provides the attendees with a methodical presentation of the rules/regulations/requirements for the installation of underground piping in accordance with NFPA 13 & 24. The seminar addresses the major issues affecting a proper installation by addressing not only the piping, but all of the appurtenances associated with it and the issues affecting it.

This is a basic level class.

Overview – Assists the attendees in gaining an understanding of how the various rules affecting the proper installation of underground piping support a reliable, continuous & long lasting supply of water to a fire protection system.

Goals – To increase the familiarity of the participants with the various rules/regulations associated with the proper installation of underground piping systems in accordance with NFPA 13 & 24.

Learning Objectives for participants:

- Gain an understanding of the history of the rules related to underground piping systems
- Become familiar with the rules/regulations/requirements related to underground piping systems and the reasoning behind them
- Clearly understand the importance of proper installations, including flushing & testing, to provide a basis for supplying a fire protection system
- Become aware of the various safety issues associated with the installation of underground piping systems

Course Outline:

- Basic definitions
- Water supply options
- Plan submittal requirements
- Water supply/fire main requirements
- Fire department connections
- Valve requirements
- Hydrant/hose house installation requirements
- Selection & coating requirements for pipe & fittings
- Rules for laying, joining & restraining pipe
- Flushing & testing
- OSHA safety concerns associated with underground piping systems

Experience Level –BASIC: This seminar is well suited for participants who are:

- Code Officials (Building/Fire/Mechanical)
- Plan Reviewers
- Designers/Layout Technicians/Contractors
- Design Professionals (Architects/Engineers)

- Building Owners/Managers
- Insurance Representatives

Prerequisites – For attendees who:

- Know and apply the codes/standards
- Have one to two years in code enforcement
- Possess a basic knowledge in construction
- Can read and understand basic construction drawings/technical documents

Underground Piping for Fire Protection Systems Syllabus

8:00 – 8:15	Introductions and class overview of objectives
8:15- 8:45	Nature of water supplies
8:45 – 10:00	Types of components
10:00 – 10:15	Break
10:15 – 10:45	Hose houses and equipment
10:45 – 11:15	Piping and fittings
11:15 – 12:00	Laying Buried Pipe

Basic Seismic Protection for Sprinkler Systems

This half day seminar describes the responsibility of the contractor and authority having jurisdiction for the proper installation of earthquake protection of fire sprinkler systems.

This is an intermediate level class.

Overview – Provides the attendees with the understanding of installation of earthquake requirements for fire sprinkler systems.

Goals – Is to familiarize participants with the rules for earthquake design in NFPA 13.

Learning Objectives for participants:

- Seismic design
- NFPA 13 criteria
- Bracing, flexibility and clearance
- Calculate loads
- Restraint
- Retrofit

Course Outline:

- History of seismic design
- Is earthquake protection needed?
- Determine force factors
- Acceptance of NFPA 13 criteria
- Flexibility and clearance
- Spacing and configuration of braces
- Calculate loads to bracing
- Adequacy of braces, fittings and fasteners
- Restraint as required
- Hanging arrangements
- Retrofit considerations

Experience Level –Basic - Intermediate: This seminar is suited for participants who are:

- Code Officials (Building/Fire/mechanical)
- Plan Reviewers
- Designers/Layout Technicians/Contractors
- Design Professionals (Architects/Engineers)
- Building Owners/Managers
- Insurance Representatives

Prerequisites – For attendees who:

- Know and apply the codes/standards
- Have one to two years in code enforcement
- Possess a basic knowledge in construction
- Can read and understand basic construction drawings/technical documents

Basic Seismic Protection for Sprinkler Systems Syllabus

8:00 – 8:15	Introduction and class overview of objectives
8:15 – 8:45	Seismic design
8:45 – 9:15	NFPA 13 criteria
9:15 – 10:00	Bracing, flexibility and clearance
10:00 – 10:15	Break
10:15 – 10:45	Calculate loads
10:45 – 11:15	Restraint
11:15 – 12:00	Retrofit

Advanced Seismic Protection for Sprinkler Systems

This half day seminar provides the attendee with the skills to conduct layout procedures and plan review for the proper installation of earthquake protection for fire sprinkler systems.

This is an intermediate to advanced level class.

Overview – Provides the attendees with the installation requirements for seismic protection of fire sprinkler systems.

Goals – Is to have participants apply the proper layout, plan review and installation procedures for earthquake protection as specified in NFPA 13 (2002 Edition)..

Learning Objectives for participants:

- Review of NFPA 13 and ASCE 7 criteria
- Calculate loads and design limitations for bracing hangers
- Review zone of influence seismic issues
- Apply proper layout, review and installation procedures for piping clearances & building seismic separations
- Apply proper layout, review and installation of four-way brace units
- Apply proper layout, review and installation procedures for sway bracing

Course Outline:

- Basic review of seismic design and layout principles
 - Seismic design
 - Flexibility and clearance seismic design
 - Calculate loads to bracing
 - Spacing and configuration of braces
 - Adequacy of braces, fittings and fasteners
 - Restraint as required
- Conduct plan review application exercises using sprinkler system plans.
- Retrofit considerations

Experience Level –Basic - Intermediate: This seminar is suited for participants who are:

- Code Officials (Building/Fire/mechanical) Inspectors & Plan Review
- Designers/Layout Technicians/Contractors
- Design Professionals (Architects/Engineers)
- Insurance Representatives

Prerequisites – For attendees who:

- Know and apply the codes/standards
- Have one to two years in code enforcement
- Possess a basic knowledge in construction

- Can read and understand basic construction drawings/technical documents

Seismic Protection for Sprinkler Systems Syllabus
(1/2 Day – 4 Hours)

8:00 – 8:15	Introduction and class overview of objectives
8:15 – 8:45	Seismic design
8:45 – 9:15	NFPA 13 criteria
9:15 – 10:00	Bracing, flexibility and clearance
10:00 – 10:15	Break
10:15 – 10:45	Calculate loads
10:45 – 11:15	Restraint
11:15 – 12:00	Retrofit

INTRODUCTION TO SPRINKLER SYSTEMS

This half day program provides the participant with basic knowledge of sprinkler systems. The program covers the type of systems, types of sprinklers, components, terms and basic definitions used in NFPA 13. The course also provides the student with a brief overview of the historical development of sprinkler systems. This program will be very beneficial to the individual with limited knowledge of sprinkler systems.

This is a basic to intermediate level class.

Overview– Assists the participants with understanding sprinkler systems, and prepares the student for other NFSA seminar and higher level sprinkler system courses.

Goal – To increase the familiarity and understanding of the participant with sprinkler system and their associated components and operating principals.

Learning Objectives for participants:

- Understand how a Sprinkler Systems Functions
- Distinguish among the Four Types Sprinkler Systems
- Distinguish among the Types of Sprinklers
- Understand the Various Components of a Sprinkler System
- Understand the Different Sprinklers Standards (NFPA 13, 13R, & 13D)
- Understand the Requirements for Initial Acceptance Testing of Sprinkler Systems

Course Outline

- History and Development of Sprinklers
- Purpose & Intent of Sprinkler Systems.
- Types of Sprinkler Systems & Description of each
- Types of Sprinkler Heads
- System Components & Hardware
- Basic terms and Definition
- Installation Standards
- Acceptance Testing

Experience Level –Basic to Intermediate: This seminar is suited for participants who are:

- Code Officials (Building/Fire/ Mechanical)
- Plan Reviewers
- Design Professionals (Architects/Engineers)
- Building Owners/Managers
- Insurance Representatives

Prerequisites – For attendees who:

- Know and apply codes and standards
- Have one to two years in code enforcement
- Possess a basic knowledge in construction
- Can read and understand basic drawings/technical documents

Introduction to Sprinkler Systems Syllabus

8:00 – 8:15	Introductions and class overview of objectives
8:15- 8:45	Historical Backgrounds
8:45 – 10:00	Types of Components
10:00 – 10:15	Break
10:15 – 10:45	Types of Systems
10:45 – 11:15	Types of Sprinklers
11:15 – 12:00	Terms, Definitions, & Standards

Sponsored Seminar Information Form

Date:					
Seminar Co-Sponsor:					
Contact Name:					
Location/Building:					
Address:					
City:		State:		Zip:	
Telephone #:		Fax #:			
Email Address:		Mail Labels Provided:	Yes	No	
Workbook Shipping (Note: UPS will not ship to a P.O. Box address)					
Ship To: (If Different From Contact Name Above)					
Shipping Address:					
City:		State:		Zip:	
Telephone:					
State/Local Course Certification Number:			Hours:		
Classroom Charge Per Day:					
AV Equipment Charge Per Day:					
Refreshment Charge Per Day:					
Title of Seminar (1)				Date:	
Course #				Hours	
Title of Seminar (2)				Date:	
Course #				Hours	
Title of Seminar (3)				Date:	
Course #				Hours	
Title of Seminar (4)				Date:	
Course #				Hours	
Title of Seminar (5)				Date:	
Course #				Hours	
Title of Seminar (6)				Date:	
Course #				Hours	

Comments:	
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- 2-Day Overview of NFPA 13 & Intro to Plan Rev.
- 1-Day Hydraulics for Fire Protection
- 1-Day Fire Pumps for Fire Protection
- 1-Day Sprinkler Protection for General Storage
- 1-Day Sprinkler Protection for Rack Storage
- 1-Day Sprinkler Protection for Special Storage
- 1-Day Inspection, Testing, Maintenance
- 1-Day Residential Sprinklers, Homes to High-rise
- 1-Day Sprinklers for Dwellings (NFPA 13D)
- 1-Day NFPA 13, 13R, & 13D Update (2007)
- 1-Day (6 hours) Design Advantage
- ½-Day Standpipe Systems (NFPA 14)
- ½-Day Underground Piping for Fire Protection
- ½-Day Basic Seismic Protection
- ½-Day Advanced Seismic Protection
- ½-Day Introduction to Sprinkler Systems
- ½-Day Fire Pump Layout & Sizing
- ½-Day Foam Water Sprinkler Systems (NFPA 16)
- ½-Day Low, Medium, High Expansion Foam and Class A Foams (NFPA 11)
- ½-Day NFPA 13, 13R, & 13D Update (2002)

Complete this form and either fax or mail to:

David L. Bowman, Ph.D.
Executive Director, Florida Fire Sprinkler Association
6572 SE 173rd. Court
Ocklawaha, FL 32179

Fax: 661-455-3968