Learning Objectives

You’ll be able to:

Discuss the science of fire and learn how it spreads in structures.

Learn how codes are written to mandate fire resistance ratings, ventilation requirements, egress and fire fighter access.

Develop a fire protection design approach using NFPA 13.

Maintain sprinkler systems and combat corrosion.

Address special design considerations for manufacturing facilities, industrial occupancies and data centers.

Handle hazards and risks that are not addressed by building and fire codes.

Anatomy of a Fire
History and science behind development of fire protection design
Overview of fire growth and characteristics
The role that building construction plays in fire behavior
How codes are written to address fire resistance ratings, ventilation, egress, fire fighter access
Case study showing integration with overall building life safety performance

NFPA 13 Design Approach
Definition of responsible charge in the design of a sprinkler system
Engineer vs. contractor responsibilities for the design of automatic sprinkler systems
Design approaches for construction documents applied to NFPA 13
Establishing levels of contractor competency for degree of project complexity
Case study for application of design approaches to NFPA 13
What is the right level of fire protection design to optimize installation cost?

What’s Eating Your Pipes? – How Corrosion Can Cause Your Sprinkler System to Fail and How to Fight it
Corrosion in fire protection systems is a growing problem
Steps in combating the corrosion problem
Various types of corrosion that can take place in fire protection systems
Specific information on ways to size up the corrosion problem; overview of NFPA 25 specified maintenance requirements and techniques to mitigate corrosion
Case studies of existing buildings to emphasize corrosion issues associated with the upkeep of sprinkler systems

Hazard Evaluation vs. Risk Analysis – A Way of Thinking
Steps that code enforcement officials, engineers, and architects can take in dealing with hazards and risks within structures that are not addressed by the building and firecodes
The difference between hazard evaluations and risk analysis
Examples of quantifying hazards and risk along with implementing risk management plans
A case study of a fire to emphasize the value of a hazard and risk analysis
Hazard evaluations and risk analysis for the evaluation of an existing building

Manufacturing and Industrial Occupancies – The Specialized Knowledge You Should Have
Identifying the level of protection that codes may not prescribe
Developing hazardous level classification
How to apply performance-based requirements of the codes
Developing customized detection and suppression design criteria
Case studies

Fire Protection for Data Centers
Outline the design professional’s responsibilities in the development of data center fire protection systems
Technical details specified and defined in the Building Code and NFPA standards
Developing customized detection and suppression design criteria
Chris Crivello, Principal at RAN Fire Protection Engineering, P.C.

Mr. Crivello has a chemical engineering degree from Rensselaer Polytechnic Institute, along with a master of science degree in Fire Protection Engineering from Worcester Polytechnic Institute. He has worked in the fire protection industry for over 25 years. His experience includes code compliance, fire risk assessment, explosion protection, and crowd management. He is also experienced in master planning and code administration services. Mr. Crivello has worked in fire design protection on commercial, healthcare, industrial, historical and residential buildings. He has designed fire protection systems for a wide range of buildings, including fire alarm, sprinkler, standpipe/water supply, foam, and agent systems. His experience with existing buildings includes the documentation of as-built conditions for fire protection system planning to evaluate system reliability. Mr. Crivello’s knowledge of national, state and NFPA codes make him an expert in fire protection code analysis and compliance review. His experience includes the analysis and design of life safety and egress solutions including architectural egress components, evacuation planning, and crowd management. He is also experienced in master planning and code consulting. Mr. Crivello’s educational and application design background, has specialized in the discipline of industrial fire protection engineering. He has worked diligently on performing fire hazard analyses, including code compliance, fire risk assessment, explosion protection, flammable and combustible liquids storage, and the control of toxic gases.

Douglas Nadeau, President at RAN Fire Protection Engineering, P.C.

Mr. Nadeau, P.E., is the president of RAN Fire Protection Engineering, P.C., and vice president of trailVEU Inspection Technologies. He is a licensed professional engineer, certified fire protection specialist, and LEED accredited professional. His education includes a bachelor of science degree in both Mechanical Engineering and Physics, along with a master of science degree in Fire Protection Engineering from Worcester Polytechnic Institute. Mr. Nadeau has worked as a lead design engineer for fire protection and plumbing systems in all types of buildings, and uses for more than 20 years. Mr. Nadeau has been recognized as a leader in the field of fire protection engineering. He has been responsible for the complete design of fire protection systems, specifying and coordinating system requirements as well as project coordination, administration, construction management and cost estimating. He has conducted risk evaluations of various building features involving building code, fire modeling, and identification and resolution of hazardous conditions. Mr. Nadeau has a long history of experience with commercial, public, and institutional buildings. His work has involved the development of risk mitigation techniques and life safety systems specific to building design. He has conducted studies analyzing the protective elements in existing buildings. He has worked in the life safety provisions inherent to the Uniform Building Code (UBC), Southern Building Code (SRC), and Building Officials and Code Administrators (BOCA) has been internationally published. In addition, his expertise in the determination and application of the intent of building codes has allowed him to function as a reference for state agencies and local municipalities.

Here's what past attendees had to say about the program and presenters Christopher Crivello and Douglas Nadeau:

"Excellent." — Architect

"Great presenters." — Civil Engineer

"One of the better seminars for PDH credit I have attended." — Chemical Engineer

Seminar Information

Radisson Lackawanna Station Hotel
700 Lackawanna Ave.
Scranton, PA 18503

Tel: (570) 342-8500
Fax: 715-835-5900

Registration:
8:00 - 8:30 am
Morning Session
8:30 am - 12:00 noon
Lunch (on your own)
12:00 - 1:00 pm
Afternoon Session
1:00 - 5:30 pm

Continuing Education Credit Information
This seminar is open to the public. It offers 6.5 CEUs for those who successfully complete the entire event. Attendance certificates not available will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed within 15 business days.

The Pennsylvania Department of Labor and Industry has approved HalfMoon Education as a continuing education provider for certified code officials. This course offers 6.5 credit hours, specifically related to Building and Fire Inspectors. The International Code Council has approved this event for 6.5 CEUs in the specialty area of Fire. This seminar offers a non-credit continuing education opportunity for construction contractors. It has not been approved by any state contractor licensing entity with a continuing education requirement.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed within 15 business days.

Tuition
($797 for three or more simultaneous registrations.)

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How to Register
Visit our website at www.halfmoonseminars.org or call customer service at 715-835-5900.

Cancellations: Cancel at least 48 hours before the start of the seminar, and receive a full tuition refund, minus a $50 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the self-study package. You may also send another person to take your place.

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