Fire Investigator

Active and Passive Fire Protection in the Built Environment Instructor: Ronald E. Kanterman, Executive Inspector, FDNY-Bureau of Fire Prevention

Discussion includes an in-depth look at the design, installation, maintenance, code requirements and application of: sprinklers, standpipes, CO2, halon, dry chemical, wet chemical, clean agent, smoke purge, foam and specialty systems. New technology in fire protection and suppression systems is also introduced.

Friday, April 8, 2022	Somerset County ESTA
Saturday, April 9, 2022	Monmouth County Fire Academy

Basics of Fire Sprinklers and Fire Pumps

Instructors: Tom Kline, Owner, Fire University, and Greg Schulze, Senior Instructor, Fire University

During this course, trainees will learn about the components and function of each type of fire sprinkler system and fire pump. As a result of this course, the student shall be able to describe various types of water-based, foam fire suppression systems and fire pumps and basic inspection and testing information for these systems. The first portion of the class will consist of classroom theory, with the second half consisting of practical training in the Fire University training lab.

Tuesday, March 22, 2022	Fire University – Full day class
Tuesday, April 19, 2022	Fire University – Full day class
Tuesday, May 17, 2022	Fire University – Full day class

Bomb Threat Awareness and Response

Instructor: Jim Varick, Detective, NJSP Bomb Unit

This course is intended for all members of the First Responder community: police, fire and EMS. The program would be of benefit to all personnel from the boots on the ground to executive staff. Through this awareness level

training, First Responders will have the ability to safely respond to incidents involving improvised explosive devices and explosions. Personnel responsible for policy planning and implementation would benefit from this training by gaining knowledge that can be applied in both the planning and response phase in their respective communities.

Monday, March 14, 2022	Burlington County ESTC
Thursday, March 24, 2022	Union County Fire Academy

Community Risk Reduction: Integrating Our Efforts

Instructor: Lt. Michael O. McLeieer, Immediate Past President of the Michigan State Firemen's Association

This course is intended to familiarize fire operations personnel with the concepts of community risk reduction, stressing their importance in today's tough economic times. It is more important than ever for the fire service to seek innovative mitigation strategies to manage call volume and improve firefighter and public safety. This course was created by Vision 20/20, a project of the Institution of Fire Engineers, USA in cooperation with the National Fallen Firefighters Foundation and the National Fire Academy. The goal of this course is to provide national strategies to be utilized at the local level for fire loss prevention.

Wednesday, March 30, 2022 Thursday, March 31, 2022 Thursday, May 5, 2022 Union County Fire Academy Gloucester County Fire Academy Zoom – Full day

Compartment Fire Behavior: Bringing The Science To The Streets New

Instructors: John Dixon, Battalion Chief, FO, GIFireE, Teaneck Fire Department and Mike Daley, Lieutenant CTO, FO, MIFireE, Monroe Fire Department

The operations involving structural firefighting require a sound knowledge of both physical skills AND a scientific understanding of combustion. Moreover, with the adaptation of NFPA 1700, Structural Firefighting Standard, it is paramount that today's responders embrace the proven science behind combustion from research from the UL and NIST, and understand the application on scene. This dynamic class provides a discussion of the science behind combustion and how to use it during response. Topics to be covered include Today's Combustion Theory; Compartment Fire Behavior Considerations; Signs for Dynamic Events, including Flashover, Backdraft and Smoke Explosions; Three types of Flow Paths and how to apply tactics based upon them; and the application of combustion theory and fire dynamics relevant to new NFPA 1700 requirements. Students will also be shown live burn demonstrations of Flow Paths, Dynamic Fire Events, Compartment Considerations, and Application of Suppression Methodology. This class covers CEU requirements for Fire Officers, Fire Instructor, and Fire Investigator certifications in relation to ALL current NFPA standards.

Saturday, March 19, 2022 Monday, April 11, 2022 Saturday, May 21, 2022 Burlington County ESTC Atlantic County Fire Academy Passaic County Fire Academy

Concrete Parking Decks and Garages

Instructor: Brian Bennett, Iselin Fire Department

Concrete parking decks/garages are found in almost every jurisdiction as land becomes developed and the only option for parking cars is in vertical structures. This class will help you prepare for incidents in these structures by introducing you to the characteristics of concrete and concrete construction, the types of concrete construction, and the hazards associated with each. The components and techniques used to construct above ground and below ground concrete parking decks/garages and how they are assembled into the completed structure will be covered. The tactics used to fight horizontal and vertical fires in these structures will be reviewed, including the safety issues and case studies that involved fires and collapse in these structures.

Wednesday, April 20, 2022	Somerset County ESTA
Tuesday, May 17, 2022	Camden County Fire Academy

Evidence Based Firefighting: Dealing With Modern Fire Loads

Instructor: Michael J. Corbo, Director, Atlantic County Fire Academy County Fire Training Center

This course will discuss and show through videos of actual controlled fires scenarios, produced by NIST and UL, the new changes in fire behavior brought about by the changes in modern building construction and synthetic materials that are found not only in modern buildings but also in legacy construction. All firefighters, and fire officers must be aware of these changes so that they can apply the appropriate strategy and tactics necessary to prevent firefighter injuries and deaths. Furthermore, fire instructors must possess this information to meet the current requirements of NFPA 1403, the live burn standard. This information has now been incorporated into New Jersey's Firefighter I program with all new firefighters learning how to apply this information on the fire ground. The rest of the fire service must now catch up and understand what is happening when they arrive at the fire scene and the fire does not react as it previously did.

Wednesday, April 20, 2022 Saturday, June 4, 2022 Zoom - Half day - a.m. start Zoom - Half day- a.m. start

Fire Cause Determination; Terrorism Re-born New Instructor: Ronald E. Kanterman, Executive Inspector, FDNY-Bureau of Fire Prevention

This workshop is intended to familiarize the attendees with the signs of arson through basic fire behavior, the initial alarm, responding, the fire fight (ventilation, line placement, forcible entry, etc.), color of the smoke and flame, reaction of water on the fire, building construction, reading the crowd, role in the investigation, HTA fires, Clan Labs and much more. Photos/slides and case histories enhance this class. Arson is one of the current tools of the terrorist, domestic and foreign. Knowing the signs of arson and causes of fire, leads to safer fire ground operations.

Saturday, May 7, 2022	Zoom – Full day
Friday, May 20, 2022	Zoom – Full day

Fire Departments Responsibilities at Incendiary Fires

Instructors: Bob Disbrow, IAAI-CFI, Fire Captain/Investigator and Robert Seeburger, Battalion Chief Special Operations Command

The Fire Officer's and Firefighter's responsibilities at the fire scene is critical. The actions taken by the officers and the members of the fire suppression companies can either help or hinder the fire investigation. Topics include: Fire Officer roles and responsibilities, evidence protection, fire scene overhaul, fire pattern identification, fire causes, incendiary device identification, fatal fires, report narrative and how not to compromise a fire scene.

Wednesday, May 11, 2022 Friday, June 3, 2022 Middlesex County Fire Academy Zoom – Full day class

Fire Escape Inspections

Instructor: John Thomas, Fire Inspector Services LLC, Fire Investigator, Fire Service Instructor, and Fire Official (Retired)

This course will provide information on how to conduct a fire escape inspection as well as information on fire escape companies as compared to welding companies. The course is designed to assist the Fire Official and Fire Inspector observing that fire escapes have been inspected properly and that repairs have been completed by a fire escape company that will certify the fire escape for 5 years.

Monday, March 7, 2022 Wednesday, April 13, 2022 Atlantic County Fire Academy Zoom – Full day class

Fire Incident Report Writing

Instructor: Vincent Campagna, NJ Division of Fire Safety

This course will identify the importance of Fire Incident Report Writing. How to properly document and articulate your fire incident including how to write a narrative. Report writing skills to include who, what, where, when, why, how and C.A.R.T (Complete, Accurate Reliable and Timeliness).

Monday, March 21, 2022

Morris County Fire Academy

Tuesday, March 22, 2022 Monday, April 25, 2022 Tuesday, April 26, 2022 Union County Fire Academy Zoom – Full day class Monmouth County Fire Academy

Fire Investigation; Considering the Role of Natural Gas and/or Electricity

Instructor: Adrian J. Cales, Corporate Security Operations Manager, Public Service Enterprise Group, Detective Sergeant (Ret.), Arson Investigations Unit, Bergen County Prosecutor's Office

This program is designed to provide the student with a thorough, comprehensive and complete understanding of the properties of propane, natural gas and electricity, and the steps necessary for the examination of a fire scene where there is the potential that propane, natural gas or electricity were involved in either the origin or the cause of the fire, and, how any and all components associated with either propane, natural gas or electricity services must be subject to a detailed examination at every scene to either eliminate them, or attribute them, as to having any role or involvement in the origin or the cause of the fire.

Wednesday, April 20, 2022 Wednesday, May 18, 2022 Wednesday, June 1, 2022 Camden County Fire Academy Morris County Fire Academy Zoom – Full day class

Fire Investigators Who We Really Are

Instructor: John Thomas, Fire Inspector Services, LLC

The course discusses the two types of fire investigations that are completed after a fire; the municipal investigation for accidental and incendiary fires and the insurance investigation. If you're interested in fire investigation, this course is a good introduction.

Monday, April 18, 2022 Tuesday, May 24, 2022 Monday, June 6, 2022 Somerset County ESTA Gloucester County Fire Academy Morris County Fire Academy

Fireground Operations at Buildings of *Heavy Timber Construction: Construction & OPS*

Instructor: Chief Christopher J. Naum, SFPE, Chief of Training Command Institute, Center for Fireground Leadership, Technical Consultant NIOSH Firefighter Line of Duty Death Investigation Program

Heavy Timber Construction Type IV building types present significant challenges that set them apart from the Ordinary Type III Main Street building. This new program will provide an overview of classic Heavy Timber Type IV construction systems, their inherent building characteristics, materials and methods of construction, predictability of building performance, compromise and collapse, integrating fireground operational considerations, tactics and safety. Current construction and design trends in the renovation and adaptive re-utilization of these building into new mixed occupancy residential, commercial, retail and business spaces will be presented with additional historical case studies integrated. Key Building Anatomy features, design and current architectural and design systems will be explored on this often-lest understood building system. Insights on the new IBC provision for the New Mass Timber Type IV Class will be presented. This program has been revised and updated to focus specifically on Type IV buildings and occupancies and the emerging trend with Re-Utilization and Renovations and Mixed-Occupancy use.

Thursday, April 21, 2022 half day 8:30 a.m. start Middlesex County Fire Academy -

Fireground Operations at Buildings of *Ordinary Construction*: Old School Hazards for Today's Fireground

Instructor: Chief Christopher J. Naum, SFPE, Chief of Training Command Institute, Center for Fireground Leadership, Technical Consultant NIOSH Firefighter Line of Duty Death Investigation Program

A fundamental building type that has profound operational considerations on the fireground, commonly found in nearly all jurisdictions and response areas throughout New Jersey and the United States. This program goes beyond the cursory discussions of "main street" occupancies, but expands and explores the complexities of this heritage and legacy construction system, their renovations, adaptive reuse, make-overs and fireground operations. An overview of inherent building characteristics, construction systems, materials and methods, predictability of building performance integrated with insights on fireground operations, tactics and firefighter safety. Common to a variety of Residential, Multiple occupancy and Business and Retail Occupancy usage, the program will explore the typical Main Street Taxpayer, the FP and NFP Multiple Occupancy and Small foot print commercial properties. *This program has been revised and updated to focus specifically on Type III buildings and occupancies.* Thursday, April 21, 2022 Middlesex County Fire Academy –

half day 12:30 p.m. start Tuesday, May 24, 2022 Zoom – half day – a.m. start

Fundamentals of Automatic Sprinkler and Standpipe Systems Instructor: Paul T. Dansbach, Fire Marshal, Borough of Rutherford

This course will present timely and up to date material covering fundamental design and water supply requirements for automatic sprinkler and standpipe systems including when and why building fire pumps are required. The participants will be able to identify the various component parts of automatic sprinkler systems, standpipe systems and fire pumps. The importance of ensuring these fire protection systems are maintained in full service, while identifying common system impairments and violations which lead to these fire protection systems being out of service, will be reviewed throughout the course.

Please note: Part 1 is a prerequisite to part 2. Zoom classes are half day.

Friday, April 1, 2022 Thursday, April 7, 2022 Monday, May 9, 2022 Tuesday, June 7, 2022 Ocean County Fire Academy Middlesex County Fire Academy Camden County Fire Academy Zoom Part 1 – Half day class

Handling Fire Alarm and Sprinkler System Activations New Instructor: Mike Wolfschmidt, Firefighter/EMT, Westampton Township Emergency Services

The fire service commonly responds to incidents involving a variety of automatic fire detection and suppression systems; however, many departments rarely train on the topic. This leaves many firefighters and officers little opportunity to understand and make educated decisions on how to troubleshoot and interact with complex, modern systems. This program will discuss how to investigate/troubleshoot why a fire detection and suppression system activated when there is no apparent fire or emergency, how to identify and operate water control valves for fire sprinkler systems, how to identify and utilize fire department sprinkler/standpipe connections, the operation of kitchen fire suppression systems, NFPA 13R buildings, examples of imminent hazard conditions involving fire detection and suppression systems, how to establish a fire watch and the associated record keeping, and when to notify the Fire Official of a Local Enforcing Agency that fire protection system may not operate as intended, thus creating a dangerous condition for the building occupants and responding firefighters.

Saturday, March 19, 2022	Gloucester County Fire Academy
– Half day 12:30 p.m. start	
Monday, March 28, 2022	Middlesex County Fire Academy -
Half day 12:30 p.m. start	
Monday, May 9, 2022	Zoom – Half day class

Hazardous Materials-Bulk Storage to Big Box Stores

Instructor: Ronald E. Kanterman, Executive Inspector, FDNY-Bureau of Fire Prevention

This course will familiarize students with all aspects of code issues and code enforcement pertaining to the storage, sale and use of hazardous materials from the "mom and pop" hardware store to bulk chemical facilities. Covered are local, state and federal laws, identification systems, containers, rail cars, tank trucks, stationary vessels. Case histories are dissected and studied. We take a detailed look at selected chapters of the NJ-IFC along with all aspects of Chapter-50 covering chapters for individual chemicals or processes and occupancies. We take the students through the entire inspection process along with peripheral information, i.e., fire protection and other peripheral code requirements. In addition, the

instructor lends his 45 years of fire service and code experience to the process.

Monday, May 16, 2022

Zoom – Full day class

HAZMAT for Fire Inspectors: Common Chemicals New

Instructor: Brian Bennett, Iselin Fire Department

Hazardous materials are found in all types of occupancies, including residential, commercial, retail, and industrial facilities. Fire Inspectors are often confronted with these common chemicals when they inspect facilities where hazardous materials are used or stored. This class will cover some of the common chemicals found in use or storage in various occupancies covered by the fire code in Chapters 21-27, 29, 35, and 50-67. Having some basic knowledge about the use, storage, and hazards of these common chemicals will allow the Inspector to conduct more effective inspections. This class will review the shipping/storage containers, hazards, uses, and locations where such commonly encountered chemicals as carbon dioxide, nitrogen, liquefied petroleum gas, acetylene, ethanol, chlorine, hydrogen, ammonia, and Bakken crude may be found. The use of the Emergency Response Guidebook will be reviewed to identify potential hazards.

Friday, March 25, 2022	Ocean County Fire Academy – Half day
12:30 p.m. start	
Monday, May 16, 2022	Zoom – Half day class 12:30 p.m. start

HAZMAT for Fire Inspectors: Container Shapes New Instructor: Brian Bennett, Iselin Fire Department

Fire Inspectors are confronted with various containers when they inspect facilities where hazardous materials are used or stored. Knowing how to recognize the container shape will allow the Inspector to conduct the inspection while being knowledgeable about the potential container contents and the hazards associated with the container and its

contents. This class will review containers found in rail and highway

transportation, shipping, and fixed facilities as well as alternative fuels and their refilling/recharging facilities. The use of the Emergency Response Guidebook to identify containers and their possible contents and hazards will also be covered. The containers covered in this class are used store hazardous materials covered in Chapters 21-27, 29, 35, and 50-67 as well as Section 202 of the fire code.

Friday, March 25, 2022 Half day 8:30 a.m. start Monday, May 16, 2022 start Ocean County Fire Academy –

Zoom – Half day class 8:30 a.m.

HAZMAT for the Fire Inspector: Placards, Labels, Markings

Instructor: Brian Bennett, Iselin Fire Department

Fire Inspectors are confronted with various placard, label, and marking systems when they inspect facilities where hazardous materials are used or stored. Knowing how to interpret the information presented in these systems will allow the Inspector to conduct the inspection while being knowledgeable about the hazards present on site. This class will review the information provided in placards, labels, and marking systems such as NFPA 704, HMIS, and the OSHA Pictograms. The use of the Emergency Response Guidebook and information provided in NJ Right to Know submittals will also be reviewed. The information presented in this class covers the systems used to identify hazardous materials found in Chapters 21-27, 29, 35, and 50-67 as well as Section 202 of the fire code.

Tuesday, March 22, 2022 day class 12:30 p.m. start	Union County Fire Academy – Half
Friday, April 22, 2022 start	Zoom – Half day class 12:30 p.m.
Saturday, May 7, 2022 Half day class 12:30 p.m. start	Bergen County Fire Academy –

Insights on Rowhouse and Rowframe Construction and Occupancies New

Instructor: Chief Christopher J. Naum, SFPE, Chief of Training Command Institute, Center for Fireground Leadership, Technical Consultant NIOSH Firefighter Line of Duty Death Investigation Program

A conversation on the issues that surround inherent construction features and fireground operations at the all too common Rowhouse and Rowframe building and occupancy fire. The recent NIOSH Line of Duty Death Report from an incident in the City of Philadelphia (PA) presents new lessons, learnings and insights that also align with a number of other high-profile fires and LODDs in PA, DE and MD. A review of these reports and their insights on construction, fireground operations, command and firefighter safety will be presented.

Wednesday, April 20, 2023 Monday, May 23, 2022 Passaic County Fire Academy Zoom – Full

Inspection and Testing of Water Based Fire Protection Systems: Part 1

Instructor: Paul T. Dansbach, Fire Marshal, Borough of Rutherford

This class was previously presented as Water-Based Fire Protection System, NFPA 25-14. The class has been expanded and separated into two separate parts to meet the expanded requirements of NFPA 25-14 and to address both technical and administrative requirements of the NJ UFC. Part 1 of this class will focus on the technical requirements of Chapter 9 of the NJ IFC, how to properly cite the requirements of NFPA 25-14 and other referenced NFPA standards. Administrative requirements including the requirements for imminent hazards and abatement periods as they apply to water based fire protection systems will be presented. The requirements of Chapters 3 and 15 of NFPA 25-14 will be reviewed as well as information for determining when and how fire watches may be conducted and how to deal with system impairments. Information relating to how to determine Commodity Classifications from NFPA 13 will also be presented. Participants may take part 1 and/or part 2 and in any order and are not required to complete both parts for CEU credit.

Friday, March 25, 2022 Monday, April 18, 2022 Bergen County Fire Academy Middlesex County Fire Academy

Inspection and Testing of Water Based Fire Protection Systems: Part 2

Instructor: Paul T. Dansbach, Fire Marshal, Borough of Rutherford

This class was previously presented as Water-Based Fire Protection System, NFPA 25-14. The class has been expanded and separated into two separate parts to meet the expanded requirements of NFPA 25-14 and to address the technical requirements of the NJ UFC. Part 2 of the class will focus on the inspection, test and maintenance requirements of various chapters of NFPA 25-14 for water- based fire protection systems. The requirements and spacing rules from NFPA 13 for standard spray and ESFR sprinkler head spacing rules will be presented in this class. This information will allow code officials to identify when alterations have been performed to the building or the sprinkler system which may have violated the spacing rules of NFPA 13 and will allow fire inspector to identify obstructions to the sprinkler heads. Participants may take part 1 and/or part 2 and in any order and are not required to complete both parts for CEU credit.

Monday, March 28, 2022 Friday, May 13, 2022 Bergen County Fire Academy Middlesex County Fire Academy

ITM Requirements for Fire Sprinkler Systems

Instructors: Tom Kline, Owner, Fire University, John Jeffers, Instructor, Fire University

Trainees will take an in-depth look at NFPA 25. Through this course, individuals will gain a refresher on the use of a codebook and how to apply the NFPA 25 code to their daily work. After completing this course, the trainee will be better prepared, from a legal obligation to a practical knowledge standpoint, to inspect and carry out their job in accordance with NFPA 25. The first half of the course will consist of classroom theory, with the second half consisting of practical training on fire sprinkler systems and fire pumps. All instruction and training will take place in the Fire University training lab.

Tuesday, March 29, 2022 Tuesday, April 26, 2022 Tuesday, May 24, 2022 Fire University – Full day class Fire University – Full day class Fire University – Full day class

Legacy Wood Frame Construction Principles

Instructor: Paul T. Dansbach, Fire Marshal, Borough of Rutherford

Wood frame constructed buildings pose significant challenges for the fire service. This program will enhance the participant's knowledge and understanding of the construction methods, materials, the fire spread and collapse potential of legacy wood frame buildings which include buildings of Post & Beam Construction, Balloon Frame and Platform Frame buildings. Fire behavior and the relationship between building construction and fire behavior will be presented throughout the session. Case studies of fire incidents and buildings under construction or renovation will be used throughout the program. The program will also review how to develop and utilize differing forms of case studies to meet various teaching objectives relating to legacy wood frame buildings.

Thursday, May 26, 2022

Zoom – Half day

Pre-Engineered Commercial Kitchen Fire Extinguishing System Training

Instructor: David Pelton, National Association of Fire Equipment Distributors

The pre-engineered fire extinguishing system training program is designed to be used as a training program for authorities having jurisdiction (AHJs) and other interested parties. It is designed to assist the AHJ in recognizing the requirements of NFPA 17A, *Wet Chemical Fire Extinguishing Systems* for the protection of commercial cooking operations and the requirements of NFPA 96, *Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.* The content of the class is based on the requirements of these standards and will include descriptions and examples of typical industry practices regarding installation, inspection, maintenance and service of pre-engineered systems. Thursday, March 24, 2022 Tuesday, April 26, 2022 Somerset County ESTA Zoom - Full day

Origin and Cause; A Systematic and Comprehensive Investigation

Instructor: Adrian J. Cales, Corporate Security Operations Manager, Public Service Enterprise Group, Detective Sergeant (Ret.), Arson Investigations Unit, Bergen County Prosecutor's Office

This program is designed to provide the student with a thorough, comprehensive and complete format for the examination of a fire scene, and the documentation and determination of the origin of a fire, as well as the elimination and documentation of any and all fire causes, leading to the location where the fire originated, and to the event which facilitated the ignition of the fire.

Wednesday, March 16, 2022 Wednesday, May 11, 2022 Wednesday, May 25, 2022 Zoom - Full day Zoom - Full day Morris County Fire Academy

Standpipes and Hose Systems

Instructors: Tom Kline, Owner, Fire University, Greg Schulze, Senior Instructor, Fire University

Through classroom theory and practical training, the trainee shall be able to describe the components, classifications, and types of standpipe systems and have a working knowledge of how to operate these systems. The first portion of the class will consist of classroom theory at Fire University, with the second half consisting of practical training, including flowing water in the burn building, at Salem County Fire Academy. Trainees will need to bring a helmet, gloves and eye protection for the hands-on portion of the course. Also note, this class may run past 3:30 to allow time for driving to Salem County for the second half. Please free your schedule until 4:30 p.m. to allow for this.

Tuesday, April 5, 2022 may dismiss at 4:30 p.m. Tuesday, May 10, 2022 may dismiss at 4:30 p.m. Tuesday, June 7, 2022 may dismiss at 4:30 p.m. Fire University – Full day class

Fire University – Full day class

Fire University - Full day class

Youth Firesetter Awareness

Instructors: Joseph Ehrhardt, Juvenile Justice Administrator (Ret.), Youth Firesetter Intervention Program Manager (Ret.) Current Fire and Life Safety Educator and Fire Service Trainer and Helge Nordtveit, Fire Captain (Ret.) Youth Firesetter Intervention Program Manager (Ret.) Current Fire Official, Fire Instructor and Fire Service Trainer

Does your community have an issue with children using fire in unsupervised or dangerous ways? If you said "Yes", are you comfortable with your community's response? If you said "No", how educated are you on the issue and are you comfortable with a reliance on the status quo? If you said "I don't know", there are several steps that you can take immediately to learn about and respond to this often hidden, misunderstood, and potentially deadly and destructive issue.

Monday, April 18, 2022 Monday, May 2, 2022 Saturday, May 14, 2022 Cape May County Fire Academy Union County Fire Academy Camden County Fire Academy