

# H S E

HEALTH

SAFETY

ENVIRONMENT



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# NFPA Codes & Standards for Fire Personnel & Engineers

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**Duration:** 5 Days

## Introduction:



The National Fire Protection Association (NFPA), celebrating its 100th anniversary, has led the way to fire safety since 1896. The mission of the international nonprofit organization is to reduce the burden of fire on the quality of life by advocating scientifically-based consensus codes and standards, research, and education for fire and related safety issues.

NFPA is responsible for 300 codes and standards that are designed to minimize the risk and effects of fire by establishing criteria for building, processing, design, service, and installation in the United States, as well as many other countries. Its more than 200 technical code- and standard- development committees are comprised of over 6,000 volunteer seats. Volunteers vote on proposals and revisions in a process that is accredited by the American National Standards Institute (ANSI). This unique program consists of four modules, i.e. NFPA 1 Uniform Fire Code, NFPA 20 Fire Pumps and NFPA 72 National Fire Alarm and Signaling Code and NFPA 25 Maintenance and Testing of Water based Fire Protection Systems.

## Who Should Attend?

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Anyone who fights fires, specifies, designs, reviews, or evaluates sprinkler systems including: fire engineers, engineers, plan reviewers, designers, installers, maintenance personnel, inspectors, manufacturers, insurers, and project managers, architects, designers, installers, engineers, electrical contractors, technicians, project managers

## Course Objectives:

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### **By the end of this course delegates will be able to:**

- NFPA 1 Uniform Fire Code
- NFPA 20 Stationary Fire Pumps
- NFPA 72 National Fire Alarms and Signaling
- NFPA 25 Maintenance and Testing of Water Based Fire Protection Systems

## Course Outline:

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### **Module I: NFPA 1 Uniform Fire Code**

- Administration and Enforcement
- Definitions
- General Provisions
- Means of Egress
- Features of Fire Protection

- Building Services
- Fire Protection Systems
- Occupancy Fire Safety
- Aerosol Products
- Combustible Waste
- Refuse and Fibres
- Commercial Cooking Equipment
- Dry-cleaning
- Dust Explosion Prevention
- Fireworks
- Model Rocketry and Explosives
- Flammable and Combustible Liquids
- Hot Work Operations
- Industrial Ovens and Furnaces
- Laboratories Using Chemicals

- Liquefied Petroleum Gases and Liquefied Natural Gases
- Marinas
- Boatyards
- Marine Terminals
- Piers and Wharves
- Mechanical Refrigeration
- Oxidizers and Organic Peroxides
- Parking Garages
- Pesticides and Herbicides
- Manufactured Home and Recreational Vehicle Sites
- Refuelling
- Safeguards During Building Construction
- Alteration and Demolition Operations
- Service Stations and Repair Garages
- Grandstands and Bleachers

- Folding and Telescopic Seating
- Tents and Membrane Structures

## **Module II: NFPA 20 Stationary Fire Pumps**

- Recognize different types of fire pumps and their applications
- Use graphical determinations of fire pump output
- Differentiate between electric and diesel drivers and controllers
- Identify the correct application and installation of fire pumps components
- Evaluate various types of power sources and the requirements for each
- Assure continuity of power
- Describe the difference between National Electrical Code requirements and NFPA 20 requirements
- Commission fire pumps and related equipment
- Determine the appropriate tests, required equipment and correct test procedures
- Assess fire pump test data

## **Module III: NFPA 72 National Fire Alarms and Signalling**

- Administration
- Referenced Publications
- Definitions
- Fundamentals of Fire Alarm Systems
- Initiating Devices
- Protected Premises Fire Alarm Systems
- Notification Appliances for Fire Alarm Systems
- Supervising Station Fire Alarm Systems
- Public Fire Alarm Reporting Systems
- Inspection, Testing and Maintenance
- Single- and Multiple-Station Alarms and Household Fire Alarm Systems

#### **Module IV: NFPA 25 Maintenance and Testing of Water Based Fire Protection Systems**

- Locate and explain the scope, purpose, definitions and reporting requirements of the 2008 edition of NFPA 25
- Recognize the requirements and procedures for the inspection, testing and maintenance of private service mains, common valve components, system valves and sprinkler and standpipe systems

- Plot flow test results to determine causes of water supply problems
- Evaluate system test data
- Differentiate between the types of storage tanks and their inspection and safety concerns
- Identify water spray, foam-water and foam-water spray systems
- Restore obstructed piping
- Recognize the importance of having a procedure to deal with system impairment