

Sprinkler Design for Engineers

Course Description

This three-day course is based on NFPA 13 and 20 standards. The course is designed to provide participants with the tools needed to design and install fire sprinkler systems in accordance with building and fire codes. The three-day course covers introductory aspects that are essential for engineers who are new to sprinkler system design, classification of the hazards and commodities to be protected, confirmation of the hydraulic data and preliminary hydraulic design, and preparation of design documentation. In addition, more advanced topics such as application of new technologies, protection of high-piled storage, and computer generated hydraulic calculations is also included.

Learning Objectives

Upon completion of this course participants will be able to:

- Use hazard classifications to design sprinkler systems
- Select the most suitable type of system for your project
- Develop system design criteria using hydraulic calculations
- Describe sprinkler vs. non sprinkler system requirements
- Distinguish the suitability of different types of sprinkler systems to certain hazards and construction components
- Understand water system implications for sprinkler system and fire protection design
- Illustrate combining fire pumps and water supplies
- Know how to hydraulically calculate pipe sizes

Prerequisite

Basic construction knowledge and ability to read construction documents.

Who Will Benefit: Experience Level- Beginner to Advances

Fire Protection Engineers, Sprinkler System Designers, Building Owners and Managers, Building and Fire Inspectors, Mechanical Engineers, Civil Engineers, Electrical Engineers, and Architects

Materials Needed

Calculator, architectural scale (1/4" and 1/8" equals a foot minimum), and current NFPA 13 Automatic Sprinkler handbook or Standard, along with a laptop computer to operate the demo of the hydraulics program provided by SFPE.

Course Assessment

Participants will be assessed via a written exam. A minimum score of 70% is required to obtain a Certificate of Completion.

Professional Development Hours

Upon completion each participant qualifies for 21 PDHs or 2.1 CEUs. A Certificate of Attendance will be awarded.