



Department-Approved Course Requirements: 1-Hour Fire Protection and Prevention

Course Required for: Worker Training

Purpose: This course is a general elective course that can help fulfill the requirement for an individual applying for a Site Safety Training Card. **THIS IS AN AWARENESS-LEVEL TRAINING ONLY and does not provide any other qualification or authorization outside of the Site Safety Training Card.**

Duration: 1 Hour of instructional time, excluding breaks

Class Size: 1-40 Trainees

NYC Requirement: In order to continue to operate in the City of New York, the designated construction worker is required to complete a minimum number of hours of approved site safety training and to carry site safety identification cards as proof of completion of the training (As per New York City Local Law 196 of 2017 also known as 'LL196' or 'Local Law'). This course provides one hour towards the satisfaction of that requirement.

Facility Requirements: The Training Facility used by the Course Provider must:

- Have sufficient room to accommodate all expected attendees and the equipment needed to perform hands-on exercises where required as part of the course.
- Make provisions for the presentation of training material in all media types (computer, projectors, video/DVD players, etc.); and
- Comply with all applicable laws, rules and regulations relating to occupancy, zoning, egress, fire detection, fire suppression, light, ventilation, cleanliness, sanitary facilities, emergency notification and evacuation procedures.

Training may be held at construction sites, provided the above requirements are met.

Instructor Requirement: To deliver this course the instructor(s) must demonstrate that he or she is credentialed or trained in instructional methods and learning processes. The instructor(s) must also successfully demonstrate his or her ability to solve or resolve problems relating to the subject matter by possession of a recognized degree, certificate, licensure or professional standing, or by extensive knowledge, training, and experience, in the subject matter being taught. To the extent that the course instructor(s) holds, or has held, a trade license issued by the Department, it must be in good standing and not be surrendered to, suspended by or revoked by the Department.

The instructor(s) must also be authorized by the Occupational Safety and Health Administration ('OSHA') as a trainer(s) for its Construction and Outreach Program.

Curriculum Requirement: All **topics** listed under **Course Content Outline** must be covered using the listed **Instructional Delivery Method**. The time dedicated to each outline topic should be appropriate for the course content and can vary depending on the trade or job performed by the trainee. The **Instructional Delivery Materials** used in this course must contain all current applicable NYC Construction Code references, current rules, policies and bulletins.

Course Curriculum Proposal Package Review: A comprehensive review will be performed by the **Department of Buildings** to determine compliance with these Course Curriculum Requirements.

Instruction Delivery Method

- Media:** Lecture/Discussion, Slide Presentation, Hand's on Fire Extinguish prop, case study of 130 Liberty Street Fire
- Handouts:** Slides, references and handbook
- Guided Learning:** Trainees will all demonstrate how to apply PASS technique (Pull, Aim, Squeeze, and Sweep) utilizing an empty extinguisher in class guided by instructor.

Course Content Outline

1. Introduction
 - a. Instructor introduces topic and describes their qualifications and relevant experience for training this module.
 - b. Establish that all trainees can hear and fully understand you i.e. 'raise your hand if you fully understand me' or 'clap your hands if you fully understand me'
 - c. State basic classroom rules, bearings and decorum
 - i. Inform trainees of duration or training and breaks (if any)
 - ii. Remind trainees about limiting distractions (phone use, texting, sidebar conversations)
 - iii. Emergency procedures (location and means of egress, exits or other contingencies)
 - iv. Location of restrooms
 - d. Training Objectives and Expectations:
 - i. Trainees will become generally familiar with the chemistry of fire as it practically pertains to construction.
 - ii. Trainees will be able to recognize potential for fire so as to avoid fires hazards
 - iii. Trainees should become aware of regulatory administrative fire safety requirements associated construction (FDNY, NFPA 241)
2. Potential injuries resulting from fires
3. Illustrate fire statistics and the consequences in loss of life and damage to property.
4. Explain the chemistry of fire through the description of the four components found in the tetrahedron (NOT the fire triangle); fuel, oxygen, heat, and chemical chain reaction.
5. Case study of tragedy of smoking on a construction site
6. Describe the different types of fires and their respective means of extinguishing
 - a. Type 'A' fires (ordinary combustibles)
 - b. Type 'B' fires (flammable liquids)
 - c. Type 'C' fires (electrical)
 - d. Type 'D' (metal fires)
 - e. Type 'K' (kitchen fires) Note: typically not occupational but useful for 'buy-in'
 - i. To gain trainee's 'buy-in' to the course material stress also how important fire safety is at home and the necessity of having a fire plan, fire preparedness and an emergency action
7. Describe various Code requirements of Chapter 14 of the New York City Fire Code.
 - a. Hot work (sources of ignition) permit process
 - i. Administrative
 - ii. Inspection Process

- iii. Fire-watch
 - b. Emergency muster locations
 - c. The Fire Plan
 - i. Describe the components of a construction fire plan
 - ii. Drills and means of stairway familiarization
 - iii. Head counts of workers
 - d. Storage of Compressed gases
 - e. Storage of Flammable Liquids
8. Jobsite Fire Prevention and Protection Protocol
- a. No Smoking Signage
 - b. Housekeeping
 - c. Painted Standpipes
 - d. Front Entry Fire Boxes
 - e. Blocking of Fire Department Connections
 - f. Fire Extinguisher Placement and Use
 - i. Placement of Fire Extinguisher Square footage, stairways, hot work, flammable compressed gas and flammable liquids.
 - ii. Monthly inspections
 - iii. Annual certifications
 - iv. Protocol for used or spent fire extinguishers
9. Means of Egress
- a. Maintain clear paths
 - b. Signage, i.e. floor signs (Construction and Finished Building Floors)
 - c. Describe OSHA Code in Subpart F that requires construction priority be given to components of the completed building's fire-rated areas i.e. rated corridors, stairways, fire-rated door etc. to expedite evacuation due to a construction fire.
10. Major Buildings Fire Safety
- a. Construction Fire Safety Managers
 - b. Standpipe
 - i. Tracing
 - ii. Signage
 - iii. Clearances to fire connections
 - c. Hoist in Readiness for FDNY
 - d. Concrete heating operations
 - e. The regulatory significance of 75 feet in Fire Code (reach and accessibility)
11. Working in Occupied Buildings:
- a. Generally describe the duties of an existing building Fire Safety Director is and how they must share responsible for hot work
 - b. Coordination of Impaired Fire Systems
 - i. Fire suppression
 - ii. Fire alarm
 - iii. Fire-rating disruptions and penetrations
 - iv. Means of Egress Issues
 - c. Fire watches, patrols and record keeping

- d. Removing fire stopping and fire cutoffs
12. The Hot Work Permit Process
- a. Inspection of hot work floor, lower floor, equipment, fire extinguisher, fire blankets etc.
 - b. Administrative paperwork
 - c. During hot work
 - d. After hot work activities are complete
13. Resources:
- a. New York City Fire Code Chapter 14, 9,
 - b. NFPA 241
 - c. OSHA CFR 1926.150
 - d. FDNY Certificate of Fitness
 - i. <https://www1.nyc.gov/site/fdny/business/all-certifications/certificates-of-fitness.page>
 - e. Worker's Rights (See OSHA: <https://www.osha.gov/Publications/OSHA3146.pdf>)
 - f. OSHA Regional Map: <https://www.osha.gov/html/RAmap.html>
14. Review of all Training Topic and PASS exercise with fire extinguisher.
15. Debriefing (Informal evaluation)
- a. Guided by instructor, trainees, in a class discussion talk about the course's content and means of delivery and provide verbal feedback to the instructor.
 - b. Instructor takes notes (either committing them to writing during discussion or ascribing them later into noted-comments).
 - c. Instructor applies lessons learned from debriefing to future trainings.
16. Written (Multiple Choice) Assessment