



Training for Hazardous Materials Response: Technician

Course Duration:

80 hours (10 days).

Learning Objectives:

Given an 80-hour course on hazardous materials response, students will be able to describe and perform the duties of a technician-level responder assigned to respond to hazardous materials and weapons of mass destruction incidents as outlined in National Fire Protection Association (NFPA) 472, Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents.

Target Audience:

The IAFF developed this course for those fire, rescue, Emergency Medical Service (EMS) personnel, and other first responders who may respond to, and mitigate, incidents involving hazardous materials and weapons of mass destruction.

Instructor Qualifications:

The IAFF currently has a team of 92 fire fighter/paramedic master instructors, with an average of 23 years of fire service experience, who specialize in student-centered, active learning techniques. Each master instructor possesses a minimum of five years of fire fighting and HazMat experience before being appointed as an IAFF master instructor. Upon appointment, master instructors participate in the IAFF's Adult Educational Methodology program which includes adult learning principles, target audience characteristics, instructional methodology, and practice using facilitation skills to deliver content and solve any facilitation problems that may arise. Master instructors for this course should also have training to at least the NFPA 472, Standard for Professional Competence of Responders to Hazardous Materials, First Responder Technician level as well as IAFF training specific to delivery of the Technician course.

In addition to master instructors, the IAFF prepares local instructors to deliver its courses through its train-the-trainer program. Local instructors interested in attending the train-the-trainer program must satisfy the following prerequisites:

- At least one year of teaching experience
- Certification to the National Fire Protection Association (NFPA) 1041, Standard for Fire Service Instructor Professional Qualifications Level I or equivalent



International Association of Fire Fighters Course Description

- Demonstrated ability to teach from prepared materials
- Training to at least the NFPA 472, Standard for Professional Competence of Responders to Hazardous Materials, First Responder Technician level
- Recent hazardous materials field experience and emergency medical training



International Association of Fire Fighters Course Description

Syllabus

Course Title

Training for Hazardous Materials Response: Technician

This IAFF training is available throughout the United States. To request training, mail, fax or email requests to:

Harold A. Schaitberger, General President
International Association of Fire Fighters
1750 New York Avenue, NW
Washington, DC 20006

Fax: (202) 637-0839 / Email: hazmat@iaff.org

Instructors

The IAFF provides a team of professional instructors, from across the country, composed of active fire fighters/EMS personnel/HazMat Team Members. Instructors may be drawn from the national cadre of IAFF Master Instructors or local instructors trained by the IAFF.

Contact information

The IAFF does not provide instructors' contact information. However, students may contact the IAFF HazMat/WMD Training Department for additional course-related information at:

International Association of Fire Fighters
HazMat/WMD Training Department
1750 New York Avenue, NW
Washington, DC 20006

Fax: (202) 737-8484 / Email: hazmat@iaff.org

Prerequisites

Prior training at the Awareness and Operations levels as outlined in OSHA regulation 29 CFR 1910.120 (HAZWOPER) and national consensus standard

International Association of Fire Fighters

Course Description



NFPA 472, Standard for Professional Competence of Responders to Hazardous Materials is assumed to have occurred before enrollment in this course. Specifically, participants are expected to be knowledgeable in the recognition and identification of hazardous materials, the U.S. Department of Transportation hazardous materials classes, and the use of breathing apparatus and turnout gear.

Course Description

This specialized training utilizes a modular format where a fire department may analyze its current level of competency and choose course modules that will provide the skills needed by its hazardous materials team. Training includes offensive procedures for mitigation of hazardous materials spills, leaks, and exposures. Topics include chemistry, detection devices, advanced recognition and identification, pre-incident planning, incident management, scene evaluation and termination, terrorism, toxicology, medical surveillance, emergency care, PPE usage and limitations, and decontamination.

Course Objectives

After completing all twelve units* in this course, students will be able to:

- Explain the federal regulations governing the use, storage, and transport of hazardous materials in the United States
- Describe health and safety issues by classes of chemicals and toxic effects on specific body systems
- Discuss the importance of medical surveillance and proactive health and safety planning
- Identify the different types of containers used to transport/store hazardous materials.
- Describe the pre-incident planning process, including the performance of hazard analysis and risk assessment
- Discuss the chemical principles and terms of practical application to fire fighters responding to hazardous materials and weapons of mass destruction incidents
- Explain the factors related to the use of personal protective equipment (PPE), including chemical compatibility, the physiological and psychological stresses of wearing encapsulated clothing, and maintenance
- Explain the types, levels, and process of decontamination, including step-by-step procedures and set-up of the area

International Association of Fire Fighters

Course Description



- Describe special decontamination situations such as decon for radiation and etiologic agents
- Describe the defensive and offensive control measures used by hazardous materials response team members in students' jurisdiction including, but not limited to:
 - Diking
 - Damming
 - Plugging
 - Patching
 - Overpacking
 - Transfer operations
- Describe the structure of a typical incident management system at a hazardous materials incident with a focus on the Hazardous Materials Sector/Group
- Describe the technician level responder's role at a hazardous materials incident resulting from terrorist activities
- Describe how to assess, treat, and transport patients who have been exposed to hazardous materials or injured at such incidents
- Demonstrate the use of the following equipment used in the students' department
 - Detection devices
 - PPE
 - Decontamination equipment
- Demonstrate offensive tactics such as plugging and patching leaks

*Instructors will select which objectives are covered based on department and student needs.

Schedule

There are twelve units included in the Technician course. Instructors will select which units are presented based on department and student needs.

- Unit 1: Regulations
- Unit 2: Recognition and Identification
- Unit 3: Health and Safety
- Unit 4: Pre-Incident Planning
- Unit 5: Practical Chemistry
- Unit 6: Detection Devices
- Unit 7: Personal Protective Equipment
- Unit 8: Decontamination
- Unit 9: Control Techniques

International Association of Fire Fighters

Course Description



- Unit 10: Incident Management
- Unit 11: Terrorism
- Unit 12: Patient Support

Required Reading

All required reading materials are provided in the Student Manual for the course. Additional suggested readings are included in expanded information sections.

Grading Policies

A pre-test and post-test are administered to determine which topics need more emphasis for a given class. Pre-tests are graded and concepts related to items most frequently missed by students are emphasized by the instructors. Students are also encouraged to note which areas they should focus on for improvement on the post-test.