



Hazardous Materials Training for First Responder Operations (FRO)

Course Duration:

The course includes 24 hours of instruction. It can be taught in three 8-hour days or it may be divided into other blocks of time to accommodate schedules (e.g., during four 6-hour days).

Learning Objectives:

After completing this course, students will be able to describe and practice basic strategies to safeguard their health and safety when their work involves potential exposure to hazardous materials. Students will gain the knowledge and skills needed to:

- Recognize and identify the clues that determine the presence of HazMat/WMD
- Research and evaluate exposure information
- Make decisions and execute First Responder actions

Target Audience:

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

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 also receive three days of training specific to delivery of the FRO 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:

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- 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
- 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 Operations level (or awareness for non-fire service)
- Recent hazardous materials field experience and emergency medical training

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Syllabus

Hazardous Materials Training for First Responder Operations (FRO)

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 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 level as outlined in OSHA regulation 29 CFR 1910.120 (HAZWOPER) and national consensus standard NFPA 472, Standard for Professional Competence of Responders to Hazardous Materials is assumed to have occurred before enrollment in this course.

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This course is intended to provide emergency responders with the knowledge, skills, and personal health strategies they need to safely and effectively:

- Respond to hazardous materials incidents that occur at fixed sites and during transport
- Rectify hazardous situations that develop within routine calls (e.g., exposure to household chemicals that may have been involved/spilled during a residential fire)

This course fulfills most of the training requirements for the First Responder Operations level according to OSHA regulation 29 CFR 1910.120. The IAFF does not address topics routinely covered within fire department/fire academy training programs. When coupled with standard fire academy training curricula, it is able to ensure compliance with all national regulations and standards. Either before or immediately after participation in this 24-hour course, competencies that need to be mastered include the ability to:

- Use the local emergency response plan and/or standard operating procedures
- Perform defensive control techniques (e.g., damming and diking; flowing foam)
- Use the personal protective equipment of the authority having jurisdiction
- Identify department decontamination procedures
- Communicate the status of the planned response
- Initiate the Incident Management System, recognizing:
 - Purpose, need, benefits, and elements
 - Considerations for determining command post location
 - Authority and responsibilities of the safety officer

If the jurisdiction being trained is unable to ensure that the aforementioned competencies are covered in addition to the materials in this course, the IAFF can provide eight additional hours of instructional time (extending the training from three to four days) that will ensure full compliance.

Course Objectives

After completing this course, students will be able to describe and practice basic strategies to safeguard their health and safety when their work involves potential exposure to hazardous materials. Students will gain the knowledge and skills needed to:

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- Detect the presence of hazardous substances
- Consult references for information
- Implement defensive control measures that minimize risks to health and safety

Schedule

The course is divided into three units with the following objectives:

- Unit 1: Understanding Hazardous Materials
 - Recognize the specific laws and regulations that protect fire fighters
 - Name at least five different substances that are classified as hazardous materials
 - Identify four categories of sites where hazardous materials may be found
 - Relate incident location to type and quantity of hazardous materials present
 - Identify some of the hazards involved with specific sites
 - Apply the APIE process to the management of hazardous materials incidents
 - Recognize and apply chemical and physical properties
 - Describe the routes through which hazardous materials may enter the body
 - Describe toxic effects of exposure
 - Identify hazards that could be associated with an incident involving criminal or terrorist activity
 - Identify locations which may be criminal or terrorist targets
- Unit 2: Recognizing Hazardous Materials
 - Identify the purpose of medical surveillance
 - Identify the five basic hazardous materials identification clues
 - Apply knowledge of container shape and size to predict products carried in highway and rail tank cars
 - Use NFPA 704M, HMIS, DOT, and military marking systems to identify the presence of hazardous materials
 - Use the Emergency Response Guidebook to identify hazardous materials
- Unit 3: Responding to Hazardous Materials
 - Use shipping papers and facility documents to identify hazardous materials
 - Use the NIOSH Pocket Guide as a reference tool on chemical products

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- Recognize the purposes, resources, and components of pre-incident planning
- Evaluate an incident utilizing the risk/benefit model
- List ways to prevent or minimize exposure to hazardous materials
- Explain the limitations and proper care of structural fire fighter protective clothing (SFPC) and self-contained breathing apparatus (SCBA)
- Explain the procedures for decontamination
- Apply new skills and knowledge to safely manage an incident utilizing First Responder actions

Required Reading

All required reading materials are provided in the Student Manual for the course. The student manual contains:

- Individual worksheet exercises, speed drills, and quizzes
- Team problem solving based on real case studies and emergency scenarios
- Readings to generate guided discussion; appended materials for future reference

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.