



Pennsylvania State Fire Academy

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Minimum Standard for Accreditation (MSA)

August, 2001

Course Title: Haz-Mat First Responder Operations IAFF (IAFF)

Length of Course: 24 Hours

Lecture/ Lab Breakdown: 24/0

Prerequisites: **Students must be capable of reading and writing in the English language at at least an eighth-grade level.**

Reference Texts: Course Facilitator Guide

Course Goal: This course will increase student knowledge of the type, nature and effects of hazardous materials; develop new attitudes toward health safety; and reinforce safe behavior patterns in responding to hazardous materials incidents.

Description of Course: This course, distributed by the International Association of Fire Fighters, trains the student in those knowledge and skills required at the First Responder/Operations level of hazardous materials response. The course content is heavily oriented toward fire suppression personnel.

Description of Methodology to be used: (brief) During the course the students will be active learners rather than passive recipients of information. The course uses participant interaction within teams, case studies, and testing to accomplish course objectives.

Student, Equipment/Supply Needs: pen/pencil, highlighter

Equipment/Audiovisual/supply requirements: Student manual (1 per student) complete with expanded information; CD, computer, LCD projector/screen; chalkboard /dry erase board, 4 flip charts with stands, VCR with sufficient monitors for class size or adapter for LCD projector; classrooms large enough for group seating (tables and chairs), name and team identification cards.

SPECIAL NOTES:

1. Student manual must remain in the student's possession at the conclusion of the class.
2. Minimum class size: 16 persons; maximum class size 28 persons – **no exceptions.**
3. Two qualified instructors are required for the entire duration of the class.

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COURSE OUTLINE

<u>Time</u>	<u>Content</u>	<u>Facilitator Notes</u>
3.5 hours	Unit 1 Common Alarms	
4.5 hours	Unit 2 Health and Safety	
10 hours	Unit 3 Recognition and Identification	
5.5 hours	Unit 4 Planned Response	
.5 hours	Summary/Conclusion	

24 hours total

Competency Evaluation Mechanism (Brief description-attach copy): Pre test and post test (provided by IAFF as part of the program) and observed performance during team activities.

Course Objectives (specific): Upon completion of this Course, the student will be able, to the satisfaction of the facilitator, to:

1. Define their learning goals for the course
2. Identify four major categories of sites where hazardous materials emergencies may occur
3. Name at least five different substances that are classified as hazardous materials
4. Explain how the location of an incident may indicate the type and quantity of hazards present
5. Identify some of the hazards involved with specific sites such as schools, hospitals, and manufacturing plants
6. Apply the APIE process to the management of hazardous materials incidents
7. Identify first responder actions
8. Explain the difference between exposure and contamination
9. Identify the purpose of medical surveillance
10. Explain the procedures for decontamination
11. Explain the limitations and proper care of structural fire fighter protective clothing (SFPC) and self contained breathing apparatus (SCBA)
12. Describe the four major routes of entry of hazardous materials
13. Describe toxic effects resulting from exposure
14. Name activities that help maintain good health
15. List ways to prevent or minimize exposure to hazardous materials
16. Identify the four basic clues to recognize the presence of a hazardous material
17. Apply knowledge of occupancy and location clues to identify the presence of a hazardous material
18. Use both NFPA and DOT marking systems to identify the presence of a hazardous material
19. Apply knowledge of size and shape of containers to identify and list typical commodities carried in highway cargo tanks and rail tank cars
20. Use 2000 Emergency Response Guidebook (ERG), NIOSH Pocket Guide, facility documents (MSDSs), and shipping papers to identify hazardous materials
21. Recognize and apply basic physical properties to hazardous materials incident responses including: Vapor pressure, Vapor density, Oxidizers, Flash point, Lower and upper explosive limits, Specific gravity, Solubility, Chemical reactivity, Ignition temperature, pH

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Course Objectives (specific): continued

22. Define the objectives of pre-incident planning
23. Develop a pre-incident plan
24. Identify types of information needed in order to assess risks
25. List resources to consider when preplanning
26. Explain the importance of scene management at a hazardous materials incident
27. List eight first responder actions
28. Evaluate an incident based on the risk/benefit model
29. Define hot, warm, and cold zones and isolation perimeter
30. Identify the key components of departmental SOPs and SOGs
31. Apply new skills and knowledge to safely manage an incident

**Questions/Comments: Rita Wessel, Curriculum Specialist: Extension 106
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