

Hazardous Materials and Terrorist Incident Response Curriculum Guidelines

Awareness

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Awareness

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Employee

Hazardous
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Introduction

Awareness level personnel shall be trained to meet all competencies of the awareness level. In addition, the awareness level shall receive training to meet requirements of the Occupational Safety and Health Administration, local occupational health and safety regulatory agencies, or Environmental Protection Agency, as appropriate for their jurisdictions. Members of any organization that respond or can be expected to respond to a hazardous materials incident must know the requirements of the OSHA 1910.120 and EPA 311 training and emergency response plan.

Definition

The awareness level are personnel who are likely to witness or discover a hazardous materials/WMD emergency or, in the course of their normal duties, may be the first persons on the scene of an emergency involving hazardous materials. The awareness level personnel are expected to recognize that hazardous materials are present, protect themselves, call for trained personnel, and secure the area. The most important duty of these personnel is to make proper notification to begin the emergency response sequence. The first responders' role at this level should involve no potential for their exposure to the hazards related to an incident.

Training Audience

Hazardous materials responders at the awareness level may be employed by public- or private-sector organizations, such as fire or emergency medical services, law enforcement, emergency management, public works, public health, utilities, and transportation, as well as volunteer agencies and manufacturers, guard and security services, and contractors.

Methodology Recommendations

The training method can use a combination of lecture and media presentations with individual or small-group exercises at intervals of 30 to 45 minutes. A course can range from 4 to 16 hours in length. The exercises can consist of activities that practice identification and recognition of hazardous materials from scenario descriptions and can use information sources such as the North American Emergency Response Guidebook to establish the presence of the hazardous materials described in the scenarios.

Refresher training should focus on renewing the skill of employees in using information sources to recognize and identify hazardous materials.

Target Training to a Specific Occupational Group

Persons training for the awareness level are a diverse group, including police, fire, EMS, public works, emergency management, and transportation personnel. Although the minimal competencies for all personnel remain the same, whenever possible training should be tailored to meet the needs of specific groups. Trainees from a specific discipline or profession should be asked to respond to scenarios that are relevant to their work. They should play roles that are consistent with their occupational responsibilities. Training managers should recruit and train instructors from a variety of occupations. Training materials should depict awareness in multiple

situations. Major changes to the curriculum should not be necessary; in most cases, an instructor simply must be sensitive to the audience and its needs and use realistic scenarios.

Summary: Awareness Level

Audience:	Very broad. All who may first respond to hazmat incidents
Pre-Req:	None
Training:	<ul style="list-style-type: none"> No length required; 4-16 hours is common practice. Traditional classroom format. Competencies: <ul style="list-style-type: none"> Understanding of hazmat and the role of first responder. Ability to recognize and identify hazmat
Refresher:	<ul style="list-style-type: none"> Very broad. All who may first respond to hazmat incidents

Federal Requirements for Awareness Training

OSHA establishes the following training requirements for the awareness level. Length of training and method of testing are not specified, but employers are required to ensure the employees demonstrate competency in the skills defined.

The awareness level are individuals who are likely to witness or discover a hazardous substance release and who have been trained to initiate an emergency response sequence by notifying the authorities of the release. The awareness level shall have sufficient training or have had sufficient experience to objectively demonstrate competency in the following areas:

- (A) *An understanding of what hazardous substances are, and the risks associated with them in an incident*
- (B) *An understanding of the potential outcomes associated with an emergency created when hazardous substances are present*
- (C) *The ability to recognize the presence of hazardous substances in an emergency*
- (D) *The ability to identify the hazardous substance, if possible*
- (E) *An understanding of the role the first responder awareness individual in the employer's emergency response plan including site security and control and the U.S. Department of Transportation's Emergency Response Guidebook*
- (F) *The ability to realize the need for additional resources, and to make appropriate notifications to the communications center.*

OSHA 29 CFR 1910.120(q)(6)(i)

Required Training Objectives

OSHA AWARE-A	Define the different types of hazardous substances and identify the risks associated with them in an incident.
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OSHA AWARE-B	Given a simulated incident involving hazardous materials, identify the potential outcomes.
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OSHA AWARE-C	Given the data available during an incident response, demonstrate recognition of the presence of hazardous substances.
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OSHA AWARE-D	Given the data available during an incident response, identify hazardous substances present.
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OSHA AWARE-E	Define the role of the first responder awareness individual in the employer's emergency response plan including site security and control and the DOT Emergency Response Guidebook.
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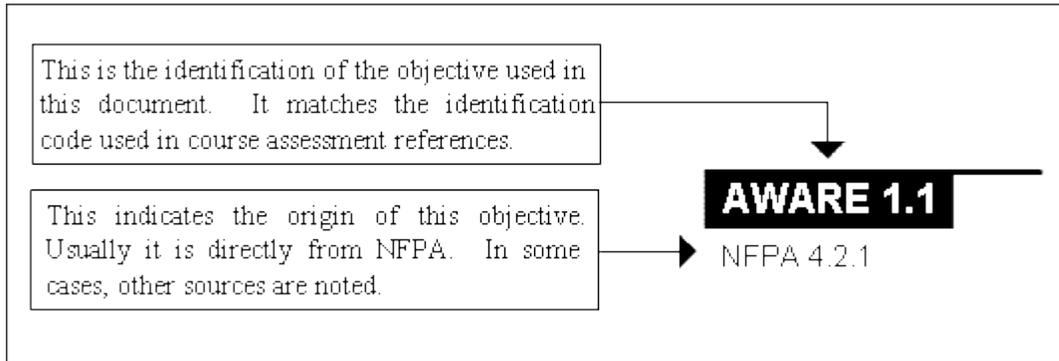
OSHA AWARE-F	Given a simulated incident, determine the need for additional resources, and make appropriate notifications to the communication center.
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Recommended Training Objectives

The following training objectives are recommended for Awareness training. The primary source for this material is NFPA 472, Chapter 4: Competencies for Awareness Level Personnel. Training objectives from other sources are noted; the rationale for their inclusion is found in the Special Topics section at the end of the Response Guidelines.

In general, these objectives are comparable in scope to those minimally required by OSHA. They do not constitute an increased level of training but rather provide a greater definition of trainee objectives. To assist in assessing course compliance with OSHA 1910.120 (q), the relationships between these objectives and the OSHA requirements are noted. References to OSHA 1910.120 (q)(6)(i)(A through F) are abbreviated as OSHA AWARE-A through F.

Objective Identification Legend



Aware 1. - Analyzing the Incident

AWARE-1.1.	Detecting the Presence of Hazardous Materials
NFPA 4.2.1 OSHA AWARE-A,B,C,D	Given examples of various situations, awareness level personnel shall identify those situations where hazardous materials/WMD are present

AWARE-1.1.1.	Identify the definition of hazardous materials (or dangerous goods, in Canada) and WMD.
NFPA 4.2.1(1) OSHA AWARE-A	

AWARE-1.1.2.	Identify the UN/DOT hazard classes and divisions of hazardous materials and identify common examples of materials in each hazard class or division.
NFPA 4.2.1(2) OSHA AWARE-A,E	

AWARE-1.1.3.	Identify the primary hazards associated with each UN/DOT hazard classes and divisions of hazardous materials by hazard class or division.
NFPA 4.2.1(3) OSHA AWARE-B,E	

AWARE-1.1.4.	Identify the difference between hazardous materials/WMD incidents and other emergencies.
NFPA 4.2.1(4) OSHA AWARE-A,B	

AWARE-1.1.5.	Identify typical occupancies and locations in the community where hazardous materials /WMD are manufactured, transported, stored, used, or disposed of
NFPA 4.2.1(5) OSHA AWARE-C,D	

AWARE-1.1.6.

Identify typical container shapes that can indicate hazardous materials/WMD.

NFPA 4.2.1(6)
OSHA AWARE-C,D

AWARE-1.1.7.

Identify facility and transportation markings and colors that indicate hazardous materials/WMD, including:

NFPA 4.2.1(7)
OSHA AWARE-C,D,E

- (a) UN/NA identification numbers;
- (b) NFPA 704 markings;
- (c) military hazardous materials/WMD markings;
- (d) special hazard communication markings;
- (e) pipeline markings; and
- (f) container markings.

AWARE-1.1.8.

Given an NFPA 704 marking, describe the significance of the colors, numbers, and special symbols

NFPA 4.2.1(8)
OSHA AWARE-D

AWARE-1.1.9.

Identify U.S. and Canadian placards and labels that indicate hazardous materials/WMD

NFPA 4.2.1(9)
OSHA AWARE-D,E

AWARE-1.1.10.

Identify the basic information on material safety data sheets (MSDS) and shipping papers that indicates hazardous materials, and be able to do the following:

NFPA 4.2.1(10)
OSHA AWARE-B

AWARE-1.1.10.1.

Identify where to find material safety data sheets (MSDS).

NFPA 4.2.1(10)a
OSHA AWARE-B

AWARE-1.1.10.2.

Identify major section of an MSDS

NFPA 4.2.1(10)b
OSHA AWARE-B

AWARE-1.1.10.3.

Identify entries on a material safety data sheet that indicate the presence of hazardous materials.

NFPA 4.2.1(10)c
OSHA AWARE-B

AWARE-1.1.10.4.

Identify the entries on shipping papers that indicate the presence of hazardous materials.

NFPA 4.2.1(10)d
OSHA AWARE-B,C

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<p>AWARE-1.1.10.5.</p>	<p>Match the name of the shipping papers found in transportation (air, highway, rail, and water) with the mode of transportation.</p>
<p>NFPA 4.2.1(10)e OSHA AWARE-B,C</p>	
<p>AWARE-1.1.10.6.</p>	<p>Identify the person responsible for having the shipping papers in each mode of transportation.</p>
<p>NFPA 4.2.1(10)f OSHA AWARE-B</p>	
<p>AWARE-1.1.10.7.</p>	<p>Identify where the shipping papers are found in each mode of transportation.</p>
<p>NFPA 4.2.1(10)g OSHA AWARE-B</p>	
<p>AWARE-1.1.10.8.</p>	<p>Identify where the papers can be found in an emergency in each mode of transportation.</p>
<p>NFPA 4.2.1(10)g OSHA AWARE-B,C</p>	
<p>AWARE-1.1.11.</p>	<p>Identify examples of clues (other than occupancy/location, container shape, markings/color, placards/labels, MSDS, and shipping papers) that use the senses of sight, sound, and odor to indicate hazardous materials/WMD.</p>
<p>NFPA 4.2.1(11) OSHA AWARE-C,E</p>	
<p>AWARE-1.1.12.</p>	<p>Describe the limitations of using the senses in determining the presence or absence of hazardous materials/WMD.</p>
<p>NFPA 4.2.1(12) OSHA AWARE-C</p>	
<p>AWARE-1.1.13.</p>	<p>Identify at least four types of locations that could become targets for criminal or terrorist activity using hazardous materials/WMD.</p>
<p>NFPA 4.2.1(13) OSHA AWARE-C</p>	
<p>AWARE-1.1.14.</p>	<p>Describe the difference between a chemical and a biological incident</p>
<p>NFPA 4.2.1(14) OSHA AWARE-C</p>	
<p>AWARE-1.1.15.</p>	<p>Identify at least four indicators of possible criminal or terrorist activity involving chemical agents.</p>
<p>NFPA 4.2.1(15) OSHA AWARE-C</p>	

AWARE-1.1.16.

NFPA 4.2.1(16)
OSHA AWARE-C

Identify at least four indicators of possible criminal or terrorist activity involving biological agents

AWARE-1.1.17.

NFPA 4.2.1(17)

Identify at least four indicators of possible criminal or terrorist activity involving radiological agents.

AWARE-1.1.18.

NFPA 4.2.1(18)

Identify at least four locations, indicators, and hazards associated with illicit laboratories (clandestine laboratories, weapons lab, ricin lab).

AWARE-1.2.

NFPA 4.2.2
OSHA AWARE-D,E

Surveying the Hazardous Materials Incident from a Safe Location

Given examples of facility and transportation situations involving hazardous materials, identify the hazardous material(s) in each situation by name, UN/NA identification number, or type placard applied.

AWARE-1.3.

NFPA 4.2.3

Collecting Hazard Information

Given the identity of various hazardous materials/WMD (name, UN/NA identification number, or type placard), awareness level personnel shall identify the fire, explosion, and health hazard information for each material by using the current edition of the *Emergency Response Guidebook* and shall meet the following requirements:

AWARE-1.3.1.

NFPA 4.2.3(1)
OSHA AWARE-A,B,E

Identify the three methods for determining the guide page for a hazardous material/WMD.

AWARE-1.3.2.

NFPA 4.2.3(2)
OSHA AWARE-A,B,E

Identify the two general types of hazards found on each guide page.

Aware 2. - Implementing the Planned Response

AWARE-2.1.

NFPA 4.4.1

Initiating Protective Actions

Given examples of hazardous materials/ WMD incidents, the emergency response plan, the standard operating procedures, and the current edition of the *Emergency Response Guidebook*, awareness level personnel shall be able to identify the actions to be taken to protect themselves and others and to control access to the scene.

AWARE-2.1.1. Identify the location of both the local emergency response plan and the standard operating procedures.
 NFPA 4.4.1(1)
 OSHA AWARE-E

Awareness

AWARE-2.1.2. Identify the role of the awareness level during hazardous materials/WMD incidents.
 NFPA 4.4.1(2)
 OSHA AWARE-E,F

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AWARE-2.1.3. Identify the following basic precautions to be taken to protect themselves and others in a hazardous materials/WMD incident.
 NFPA 4.4.1(3)
 OSHA AWARE-E

Hazardous
 Materials
 Technician

AWARE-2.1.3.1. Identify the precautions necessary when providing emergency medical care to victims of hazardous materials/WMD incidents.
 NFPA 4.4.1(3)a
 OSHA AWARE-E

Specialist
 Employee

AWARE-2.1.3.2. Identify typical ignition sources found at the scenes of hazardous materials/WMD incidents.
 NFPA 4.4.1(3)b
 OSHA AWARE-E

Hazardous
 Materials
 Specialist

AWARE-2.1.3.3. Identify the ways hazardous materials/WMD are harmful to people, the environment, and property at hazardous materials/WMD incidents.
 NFPA 4.4.1(3)c
 OSHA AWARE-A,B

Incident
 Commander

AWARE-2.1.3.4. Identify the general routes of entry for human exposure to hazardous materials/WMD.
 NFPA 4.4.1(3)d
 OSHA AWARE-A,B,C

Hazardous
 Materials
 Officer

AWARE-2.1.4. Given the identity of various hazardous materials/WMD (name, UN/NA identification number, or type placard), identify the following response information:
 NFPA 4.4.1(4)
 OSHA AWARE-E
 (a) Emergency action (fire, spill, or leak and first aid)
 (b) Personal protective equipment necessary
 (c) Initial isolation and protective action distances

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ALS
 Responder

AWARE-2.1.5. Given the name of a hazardous material, identify the recommended personal protective equipment from the following list:
 NFPA 4.4.1(5)
 OSHA AWARE-A,E
 (a) Street clothing and work uniforms
 (b) Structural fire-fighting protective clothing
 (c) Positive pressure self-contained breathing apparatus
 (d) Chemical-protective clothing and equipment

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AWARE-2.1.6.

NFPA 4.4.1(6)
OSHA AWARE-A,E

Identify the definitions for each of the following protective actions:
(a) Isolation of the hazard area and denial of entry
(b) Evacuation
(c) Sheltering in-place protection

AWARE-2.1.7.

NFPA 4.4.1(7)
OSHA AWARE-A,E

Identify the size and shape of recommended initial isolation and protective action zones.

AWARE-2.1.8.

NFPA 4.4.1(8)
OSHA AWARE-B,C,E

Describe the difference between small and large spills as found in the table of Initial Isolation and Protective Action Distances in the *Emergency Response Guidebook*.

AWARE-2.1.9.

NFPA 4.4.1(9)
OSHA AWARE-B,C,E

Identifying the circumstances under which the following distances are used at a hazardous materials/WMD incident:
(a) Table of initial isolation and protective action distances
(b) Isolation distances in the numbered guides

AWARE-2.1.10.

NFPA 4.4.1(10)
OSHA AWARE-B,C,E

Describe the difference between the isolation distances in the orange-bordered guide pages and the protective action distances in the green-bordered pages in the document.

AWARE-2.1.11.

NFPA 4.4.1(10)
OSHA AWARE-B,C,E

Describe the difference between the isolation distances in the orange-bordered guide pages and the protective action distances in the green-bordered pages in the document.

AWARE-2.1.12.

NFPA 4.4.1(11)
OSHA AWARE-E

Identify the techniques used to isolate the hazard area and deny entry to unauthorized persons at hazardous materials/WMD incidents.

AWARE-2.1.13.

NFPA 4.4.1(12)

Identify at least four specific actions necessary when an incident is suspected to involve criminal or terrorist activity.

AWARE-2.2.

NFPA 4.4.2
OSHA AWARE-E,F

Initiating the Notification Process

Given scenarios involving hazardous materials/WMD incidents, awareness level personnel shall identify the initial notifications to be made and how to make them, consistent with the emergency response plan and/or standard operating procedures.