



Municipal First-on-the-Scene

Facilitator Guide

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Midwest Consortium for Hazardous Waste Worker Training

Acknowledgments

The Midwest Consortium developed this course under cooperative agreement number U45 ES06184 from the National Institute of Environmental Health Sciences.

We encourage you to comment on these materials. Please give your suggestions to your Program Director or click on the Contact page of the Midwest Consortium website: <https://mwc.umn.edu/contact/>.

Warning

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Disclaimer

This training is intended to meet the requirements of the OSHA Hazardous Waste Rule (29 CFR 1910.120) for first responder personnel (awareness level) who may be the first-on-the-scene at a hazardous materials incident. The training program covers basic hazard recognition, identification, reporting, and self-protection for individuals who may do preliminary observation of an event. It does **not** provide the necessary hazard recognition and protective skills required to perform emergency response activities. To undertake the activities of emergency responders, additional training is necessary.

For further information about this matter, consult the training facilitator and/or your company's safety/emergency response plan or the Local Emergency Planning Committee for your city or county.

Content was updated 08/04/2023 and all web links are active as of that date; if you find an error, please inform your Program Director so that it can be updated.

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Overview

This course was developed to meet the requirements of OSHA's Hazardous Waste Standard 29 CFR 1910.120, for awareness-level first-on-the-scene responders. The program covers basic hazard recognition and identification, reporting, and self-protection for individuals who may do preliminary observation of an event. It does not provide the necessary hazard recognition and protective skills required to perform emergency response activities. To undertake these types of activities, participants will need additional training.

This course is designed to be taught in one 8-hour day. Breaks and lunch are not included in the 8 hours. The Midwest Consortium for Hazardous Waste Worker Training is devoted to professional instructional freedom while maintaining consistency of training. By following the outlined format and activities in this guide, you will be better able to enhance learning, stimulate class discussion, and maintain the training objectives.

A sample agenda is provided below, but the course may be tailored to the needs of the participants. Lesson plan forms are shown on the following two pages.

Sample Agenda

Introduction	30 minutes
Rights and Responsibilities	45 minutes
Emergency Scenarios	30 minutes
Hazard Recognition	90 minutes
Health Effects	60 minutes
Sizing-Up the Scene	90 minutes
What Do I Do?	45 minutes
Putting It All Together	60 minutes
Closing and Evaluation	30 minutes

Lesson Plan Form 1

<p>Teaching Methods for This Lesson Plan (check each method you will use)</p>	<p>Audiovisual Requirements (check each that is needed)</p>
<p> <input type="checkbox"/> Presentation <input type="checkbox"/> Discussion <input type="checkbox"/> Question and answer <input type="checkbox"/> Hands-on simulation <input type="checkbox"/> Team teaching <input type="checkbox"/> Small-group exercises <input type="checkbox"/> Case study <input type="checkbox"/> Other (describe): </p>	<p> <input type="checkbox"/> Training guidebook <input type="checkbox"/> Supplemental material <input type="checkbox"/> PowerPoint <input type="checkbox"/> Web Sites loaded on devices: <input type="checkbox"/> Markerboard or equivalent <input type="checkbox"/> Hands-on simulation <input type="checkbox"/> Other (describe): </p>
<p>Reference Materials (list all materials needed-paper or electronic)</p>	<p>Special Space or Facility Requirements</p>
	<p>(List any room size or special facility regulations here, such as set-up areas, equipment storage concerns, etc.)</p>
<p>Suggested Discussion Questions (think <u>in advance</u> what you might be asked, and prepare responses)</p>	<p>Suggested Facilitator Preparation (consult with others as needed to improve preparation skills)</p>

Lesson Plan Form 2

Subject Area or Element	Detail	Reference Number or Citation
Major subject heading or Roman numeral item from outline format.	Detailed breakdown of subject area or element. This detail will necessarily occupy more space than shown here.	e.g., page number in training handbook, section number of regulation, or audiovisual material.

Facilitator Preparation

Each facilitator should carefully review this Facilitator's Guide and the Participant Guide. In addition, you should be familiar with OSHA's HAZWOPER 29 CFR 1910.120. If possible, perform client research in advance so you can be familiar with their ERPs, SOPs, potential chemical exposures, etc.

The "Key Points" and "Review Questions" pages in the Participant Guide will provide an opportunity to reinforce main points and the module objectives. Reserve time at the end of each module to answer the participants' questions and make sure that key issues have been understood.

Graphics appear throughout the Participant Guide to illustrate labels and placards, and situations which first-on-the-scene responders might encounter. Refer participants to these illustrations when you cover material and when they work the exercises.

Visual aids, including but not limited to photographs, sketches, charts, slides, posters, short videos, and overheads are also useful training tools and may be introduced in the lesson where appropriate.

Small-group exercises are incorporated throughout the course. The purpose of the exercises is to involve participants in clarifying information, identifying options, and applying the skills they will need if they are first on the scene at an incident. Be sure to allow sufficient time for participants to complete the exercises and discuss them afterwards.

Because class activities and exercises enhance the learning process, it is important to make discussions comfortable so that everyone can participate.

Assume that every class will have participants with a wide range of communication skills. Some participants will have no problems participating in group discussion, while others may have a hard time talking in front of the group.

Suggestions for handling group exercises and discussions include the following:

- Allow participants to express their values, attitudes, and opinions freely
- Do not judge participants' responses
- Facilitate discussion by paraphrasing and clarifying.
- Avoid putting people on the spot. Instead of asking individuals for answers, have a voluntary group spokesperson present answers to the class
- Keep the groups focused on the task at hand. Because small-group exercises can draw heavily on the participants' personal experience, sometimes the conversation can drift.
- Be alert to the potential for one person to dominate work in small groups. If you see this happening, facilitate participation by other members of the group.
- Keep the participants alert and interested by encouraging participation. If the groups are not participating or are giving only cursory answers, ask them probing questions about their previous work or life experiences.

Evaluation

Evaluation provides input from participants regarding value to them, achievement of learning objectives and insights into how to improve the program. NIEHS supports 'model programs' that employ interactive training methods to build skills; see https://tools.niehs.nih.gov/wetp/public/hasl_get_blob.cfm?ID=11266&file_name=WTP_Minimum_Criteria_062818_Final_508.pdf. Collection and use of evaluation data are key to program improvement. Adherence to these criteria is a term-and-condition of NIEHS funding.

Evaluation forms are shown at <https://mwc.umn.edu>.

Successful Completion

Successful Completion for this program requires the following:

- Attendance for the entire program
- Active participation in all activities

Introduction

Time Requirement: 30 minutes
Number of Facilitators: 1 or more, consistent with ratio in Minimum Criteria

Materials

- Markerboard or equivalent; markers
- Sign-in sheets
- Registration Forms

Course Objectives

When complete, participants will better be able to:

- Identify hazardous materials and the risks they present
- Recognize potential outcomes related to hazardous materials during an emergency
- Understand the responsibilities as the first-on-the-scene
- Recognize the need for additional resources and to notify the appropriate personnel

Presentation of the Session

This session can be presented as follows:

Welcome the class

- Participants can be welcomed by an employer, union representative, or similar person in support of the program if it is held on-site
- Have participants sign in
- Explain why the program was created, and reference HAZWOPER

Introduce the program presenters:

- The training institution conducting the training
- The Midwest Consortium
- The facilitators who are present

Introduce the participants

- Ask the participants to introduce themselves to the class. Have them briefly tell their name and their experience with hazardous materials.
- Optional: With small classes, or if there is extra time, also ask the participants to tell what health and safety concerns they have. Responses should be listed where the entire class can see them. Highlight each of these concerns during the discussion of the day's agenda.

Describe the day's activities.

- Go through the agenda
- Explain training policies (e.g., smoking, breaks, phone policies, etc.)
- Explain why evaluation forms are part of training

Ask participants if they have any questions.

- Encourage participants to feel free to ask questions throughout the training presentations

Include stories to emphasize the importance and rationale for regulations.

Rights and Responsibilities

This section is intended to familiarize participants with the rights and responsibilities of a first-on-the-scene responder. It includes a listing of the requirements of an "awareness" program for first-on-the-scene responders. You should stress that this training is for first-on-the-scene responders only. Other types of responders would need additional training. You should tailor the discussion of rights that apply to the type of participants enrolled in the program.

Time Requirement: 45 minutes

Number of Facilitators: 1 or more, consistent with ratio in Minimum Criteria

Materials

- Markerboard or equivalent; markers
- Participant Guide
- 29 CFR 1910.120

Objectives

When complete, participants will be better able to:

- Identify worker rights as defined by law
- Identify the first-on-the-scene role in the Incident Command System

Teaching Methods

- Presentation
- Small-group activity

Suggested Facilitator Preparation

- Review the Participant Guide
- Review the HAZWOPER standard

Minimum Content Requirements

The following are minimum content objectives for the Rights and Responsibilities module:

- SARA
- HAZWOPER training requirements for awareness level personnel
- The Incident Command System

Questions you may be asked

1. Many participants will question why other rights or responsibilities are not in the law. Facilitators should be prepared to facilitate this discussion.
2. It is likely that employees may state that employers are not meeting their responsibilities. Facilitators need to know in advance the mechanism for health and safety problem resolution if participants are in a contract program. If open enrollment, the facilitator should be prepared to facilitate a discussion of how to approach problem resolution.

Presentation of the Session

This session can be presented as follows:

“SARA” Is Your Friend

- Explain why the program was created, and reference
- Discuss SARA and OSHA
- Present the requirements of an "awareness" program for first-on-the-scene responders

What Does SARA Do for You as a Worker?

Ensure that participants understand and can distinguish their rights and responsibilities as a first-on-the-scene responder from those of other types of responders.

What Does SARA Do for You as a Citizen?

SARA Title III can be summarized as the Right to Know.

The Incident Command System (ICS)

- Stress the efficiency of the Incident Command System.
- Note any specific state laws that should be added to the discussion.
- If participants all work for one company, also address company rules and procedures. If this is a contract training session, you should acquire the company's ERP and cover the portion dealing with first response.

Review Questions

1. What do regulations developed because of SARA do for you as a worker?

Employer must provide a medical exam if you are injured or overexposed while performing emergency responder duties at a scene on his/her behalf. Employer must provide emergency response plan and training.

2. What does SARA do for you as a citizen?

Emergency response plans for communities must be developed. Officials at facilities with hazardous substances must develop their own Emergency Response Plan, cooperate with the state and local committees, report releases, and make hazardous material information available to appropriate state and local officials, including the Local Emergency Planning Committee and Fire Department.

3. Why is an Incident Command System needed? What does it do?

- *Provides a way to respond in an organized and rational way.*
- *ICS specifies duties assigned to individuals as well as determines chain of command for the emergency response.*

Emergency Scenarios

This section is designed to introduce the activities of an awareness-level first responder and to motivate the class to think about hazardous materials incidents.

Time Requirement: 30 minutes

Number of Facilitators: 1 or more, consistent with ratio in Minimum Criteria

Materials

- Participant Guide
- Markerboard or equivalent; markers

Objectives

When complete, participants will be better able to:

- Recognize a hazardous situation
- Describe the need for gathering information before actions are taken

Teaching Methods

- Presentation
- Small-group activity

Suggested Facilitator Preparation

- Review the Participant Guide
- Review the HAZWOPER standard

Minimum Content Requirements

- Emergency recognition
- What actions should and should not be taken when an emergency is discovered.

Questions you may be asked

The Scenarios may provoke a lot of discussion about hazards and hazard recognition. Emphasize that the next section will focus on hazard recognition.

Presentation of the Session

This session can be presented as follows:

Exercise

This exercise includes four hazardous materials incident scenarios. The first three scenarios (Scenarios A, B, and C) are incidents that have just occurred, and a first-on-the-scene person has just arrived; no action has yet been taken. Scenario D is different from the rest in that it is longer and slightly more detailed than the rest. Scenario D also differs from the rest because the incident is played out from beginning (inappropriate response by nursery employees) to end (health consequences). Alternative scenarios can be used that are appropriate to the audience and/or geographic area.

After each scenario, two questions are asked. One question for each scenario asks about the “clues” that are present in the scenario and the information that the participants think should be gathered by the individuals at the scene to protect themselves and others. Information gathering, introduced here, is a major theme throughout this program. Later sections will teach participants what information they should gather if they are first on the scene.

A second question included with each scenario concerns what the person in the scenario should do. This question allows participants to speculate on what individuals should do when confronted with an emergency situation. This question directly relates to two other predominant themes of the program: methods for safely gathering information and doing only what the individual is trained to do. Later sections will advise participants on safe methods of information gathering as well as the necessity of proper training for different responders.

The purpose of this exercise is to start the participants thinking about the material that will be covered throughout the day. Remember that participants may know very little about hazardous materials at this point. This exercise is intended to encourage basic discussion during which the concept of hazardous materials can be introduced.

1. Divide the participants into groups of two to six.
2. Tell each group which scenarios they should discuss. It is best to use all four scenarios in each group, but fewer can be used. The scenarios can also be divided among the groups. In each group, one person should take notes.
3. Set a time limit of 3 to 5 minutes for each scenario. Tell the groups the time limit, and announce when each scenario should be finished. Emphasize to participants that they should stay within the facts given by the scenarios-not make additional assumptions.
4. Save the discussion of these scenarios for later in the course when they can serve as an informal pre-/post-test.

Examples from Your Experiences

- Have the participants individually fill out the "Examples from Your Experiences" questionnaire, which asks about previous experience with emergency situations.
- Discuss participants' responses to questionnaire

What is a Hazardous Material?

- Lead a discussion on definitions of "hazardous materials."
- Different agencies have different definitions.
- For legal definitions, refer to 49 CFR, Part 171.8 (DOT) and 40 CFR, Part 262 (EPA).

- Transportation in-house or on private property falls under another government authority, OSHA. OSHA deals with hazardous chemicals more specifically in the workplace. Refer to the Hazard Communication standard, 29 CFR 1910.1200, for details.
- Stress the practical importance of treating all unknown materials as if they were hazardous.

Review Questions

1. Think about the incidents from your personal experience. Why would they (or wouldn't they) be considered hazardous materials incidents?

Participants may think differently about their past experiences after completing the exercises. They may wonder if they have been exposed to hazardous chemicals.

Hazard Recognition

This section covers the hazards that a first-on-the-scene responder should look for while sizing-up an incident scene.

Time Requirement: 90 minutes

Number of Facilitators: 1 or more, consistent with ratio in Minimum Criteria

Materials

- Participant Guide
- NIOSH Pocket Guide and other electronic resources, such as WISER, New Jersey Fact Sheets, CAMEO Chemicals, etc.
- Hazard Communication standard
- If extra training on the 2012 Hazard Communication Standard is needed, the HCS 2012 exercise may be used
- Emergency Response Guidebook
- Markerboard or equivalent

Objectives

When complete, participants will be better able to:

- Identify physical, biological, and chemical hazards
- Describe important characteristics of the scene
- Recognize how to safely observe a potential hazard
- Recognize labels, placards

Teaching Methods

- Presentation
- Small-group activity

Suggested Facilitator Preparation

- Review the Participant Guide
- Review the HAZWOPER and Hazard Communication standards

Minimum Content Requirements

- Emergency recognition
- DOT system
- Hazard Communication, HMIS, NFPA, and/or other labeling systems used at the facility
- Using your senses to gather information

Questions you may be asked

1. Participants may ask why labels at their facility are not like HazCom, NFPA or HMIS. Facilitators should review 1910.1200 and be prepared to discuss alternatives.
2. Questions about labeling of pipes and small containers may be raised; both are addressed in 1910.1200.
3. Hazardous wastes are exempted from 1910.1200, but are covered under the Resource Recovery and Conservation Act for hazard communication issues. This may cause some confusion for participants. Under 1910.120, employers must provide training about known health hazards of wastes, but are not required to provide an SDS. Facilitators should be prepared to facilitate a discussion about how workers can obtain information about health hazards of wastes which are found at the facility.
4. Participants (or employers) may state that they know every hazard at the site and that training about the DOT system or other labeling systems and/or recognition of unknown hazards is unnecessary.

In response, the facilitator should be prepared to discuss the possibility of the following: A truck delivering chemicals to the plant may include chemicals other than those used at the facility. What happens if a spill occurs from the trailer on plant grounds?

What happens if bulk material is transferred into an incorrectly labeled container?

If employees may be called upon to respond to an emergency at a remote site, how will they recognize hazards at the scene?

Other scenarios also exist. It is also important to note that hazard recognition training is required by HAZWOPER.

Presentation of the Session

This session can be presented as follows:

Introduction

Ask: *What are hazards you might encounter in the workplace?*

Record the answers where everyone can see. Write answers that participants give in three columns, depending whether they are chemical, biological or physical.

Ask: *What characteristics of the scene might be important to emergency responders?*

Record the answers where everyone can see.

Physical Hazards - Keep a Safe Distance

Present the Physical Hazards section, using the physical hazards checklist to reinforce the material.

Biological Hazards

Present the Biological Hazards section, using the biological hazards checklist to reinforce the material.

Chemical Hazards

Discuss chemical hazards and chemical properties shown in the Participant Guide.

Recognizing Chemical and Biological Hazards

Six clues can help you identify potential hazards:

1. Occupancy (use of the space) and Location (where)
2. DOT Placards and Labels

3. Markings and Colors
4. Shipping Papers and Safety Data Sheets (SDSs)
5. Senses

DOT Placards and Labels

- Present the DOT Placards and Labels section.
- Introduce the *DOT Emergency Response Guidebook*.
- Stress that first-on-the-scene responders do not have to memorize all of the symbols and codes. Instead, they need to remember which characteristics about these items (i.e., size, shape, and color) should be reported when calling for help.
- Several examples of different systems of identification are described in the Participant Guide.

Markings and Other Label Systems

- Introduce the NFPA, Hazard Communication standard, and HMIS systems for labeling containers.
- Emphasize the difference between the rating systems of NFPA and HMIS, and that of the Hazard Communication standard. Under HCS 2012, the most hazardous chemicals are assigned to Category 1, with higher category numbers corresponding to reduced risks. **This is the opposite ranking from the long-standing practice used by the National Fire Protection Association and the HMIS system.** However, HCS category numbers do not appear on labels. They will be found in Section 2 of the Safety Data Sheet (SDS) for chemicals.
- Review the 9 HCS pictograms.
- Use the labels and placards checklist to reinforce the material.

Placards and Labels/Markings Exercise

1. Review the Labels and Placards Checklist.
2. Have a number of placards and labels (or copies of them) available. If possible, choose labels that represent the different systems discussed in the Participant guide (i.e., something from the DOT, NFPA-704M, Hazard Communication standard, and HMIS systems).
3. Break the class into groups.
4. Give each group two to four placards and two to four labels.
5. After the groups have discussed the two questions in their Guide, have the groups report their answers to the class.

6. Discuss with the class the features of labels and placards that should be included when calling in an incident. If the groups could not answer Question 2, explain that it is not as important for the first on the scene to make a determination of the hazardous substance. Instead, it is important that the characteristics of the label or placard are called in to experts who can make that determination.

If ERGs were used in this exercise, determine whether any problems were encountered. This might be an appropriate time to reinforce the idea that participants should not decide how hazardous a substance or incident may be based on their reading of the DOT Guidebook. These determinations should be made by qualified experts.

Answers:

1. What important features of the labels and placards should you note?
Answers will vary depending on which label or placard they have, and may include:
 - *Color*
 - *Numbers*
 - *Shape*
 - *Pictograms*
 - *Other information*
2. What are the hazards displayed on each of the placards and labels given to your group?
Answers will vary.

Shipping Papers and Safety Data Sheets (SDSs)

Discuss other sources of information.

Review in the Participant Guide:

- Shipping papers for hazardous material-required by DOT
- Manifest forms-required by the EPA and DOT
- Waste Profile Sheets-analysis of hazardous waste
- SDSs – required by the Hazard Communication standard to be available in the workplace.
- Documents are important resources for recognizing health and safety hazards.
- Discuss the limitations of documentation.

Senses

Use your eyes and ears to gather information at the scene of a possible hazardous materials incident.

Don't rely on your nose – it can sometimes be unreliable for information-gathering. For example, although hydrogen sulfide smells very bad, your nose quickly becomes accustomed to the smell, and stops smelling it.

Exercise - What's Going on Here?

1. The exercise is designed to allow participants to tie together the information that was presented. This exercise also serves as an introduction to new material presented immediately after the exercise.
2. Have participants do the exercise individually. After you have given the participants about 5 minutes to complete the task, ask some of them to share their responses with the class.
3. Lead the discussion using the information on the page following the exercise in the participant guide. Stress that first-on-the-scene responders should safely gather as much information as possible as quickly as possible and then send for or call for help.
4. Stress that other information is necessary besides the type of chemical hazard present. Lead the participants through the list provided. Focus on the importance of the setting and how the setting can affect the handling of an incident.

Answer Key:**Hazard Recognition Review Questions**

1. List 4 physical hazards and situations in which each might occur.

- *Radiation—energy and weapons production*
- *Electricity—downed lines; transformers and circuit boxes*
- *Stress—having to make a lot of decisions quickly*
- *Slips, Trips, and Falls—unstable footing; steep slopes; climbing over equipment*
- *Falling or Flying Objects—unstable scenes*
- *Steam or Chemical Vapor Clouds—ruptured lines; steam or heat reacting with other materials; steam carried by wind; toxic clouds; gases escaping from pressurized container*
- *Confined Spaces—ditches; stream beds; trailers; tanks; railcars; basements; storage closets*

2. List 4 sources of clues as to various types of chemical hazards which may be visible from afar.

Labels and placards, characteristics of the containers that are present, and things you notice about the area around the incident.

3. An NFPA label has a “0” in the flammability diamond. Is it flammable?

No

4. What should be observed from labels/placards?

- *Type of placard (word or number)*
- *Labeling system (DOT, NFPA-704M, HMIS): shape, color, words, numbers, symbols*

5. What should be observed about the container?
 - *Location: road, rail, fixed, in storage*
 - *Shape: round, oval, flat or round ends, cone-shaped, spheres*
 - *Material: plastic, metal, composite, wood, glass, paper*
6. What should be observed about the scene?
 - *Dead animals or vegetation*
 - *Injured people*
 - *Nearby buildings*
 - *Other people at or near the scene (actual or probable)*
 - *Wind direction*
 - *Sewers or drains*
 - *Creeks, rivers, or waterways*
 - *Local weather*
 - *Amount of traffic and portion of road that is blocked*
7. What is a clue to the presence of a biological hazard?
 - *Cardboard or plastic container*
 - *Red plastic bag*
 - *Infectious waste symbol*
 - *Used needles, syringes, test tubes, and vials*
8. How should you make observations at the scene?
 - *From a distance*
 - *Upwind*
 - *With binoculars, if possible*

Health Effects

The purpose of this section is to familiarize participants with the potential health effects associated with being first on the scene at a hazardous materials incident.

Although decontamination procedure training is beyond the scope of this program, you may want to include a short discussion of decontamination.

Time Requirement: 60 minutes

Number of Facilitators: 1 or more, consistent with ratio in Minimum Criteria

Materials

- Participant Guide
- Markerboard or equivalent; markers

Objectives

When complete, participants will be better able to:

- Recognize how an emergency situation may be hazardous to your health
- Recognize the signs and symptoms related to a chemical exposure
- Identify when and where hazardous materials affect the body
- Identify what to do if you think you have been exposed

Suggested Facilitator Preparation

- Review the Participant Guide
- Different groups will have different needs. Refer back to the list of hazards generated at the beginning of the course.

Minimum Content Requirements

- Chemicals and the body

Questions you may be asked

1. Are the chemicals at work harming me? The facilitator should be prepared to discuss work exposures in relation to other causes of major diseases, i.e. the many causes of lung cancer. The participant should be referred to an occupational medicine clinic for detailed information. Specific references could also be discussed.
2. How can I get exposures measured? Company and union resources should be discussed. Filing an HHE or OSHA complaint is a last resort.
3. Can the results of medical surveillance be used to fine me? This is a common concern of workers. The facilitator should be prepared to discuss union and OSHA avenues to resolve this concern.
4. How do you know if a physician specializes in occupational medicine? Few physicians are “occ docs”. Be prepared to give the names or locations of “occ docs” in your area.
5. Which type of radiation is dangerous? All radiation is dangerous. Stress the concepts of time, distance, and shielding.
6. Can urine collected for a required chemical analysis be used for a drug screen? Facilitators should be aware of company practices. Refer participant to their union or management representative.

Presentation of the Session

This session can be presented as follows:

Health Effects Exercise

- Before any discussion of the content of this section begins, have participants complete the Health Effects Exercise individually or in pairs.
- Do not discuss participants' responses to these questions.
- Present the content of the section. You might want to concentrate on one or two specifics in the figures that would be most relevant to the training audience.
- If this is a contract course, the particular possible exposures should be noted.

HEALTH EFFECTS EXERCISE - ANSWERS

Answer the following questions by circling the correct answers. You will discuss the correct answers after you have covered the material in this section.

1. A one-time exposure to a chemical is safe.
True False
2. Your nose will usually provide you with adequate warning about toxic chemicals.
True False
3. The best way to avoid breathing toxic chemicals is to maintain your distance.
 True False
4. Your skin will block absorption of all toxic chemicals.
True False
5. Coughing may indicate that the gases are harmful.
 True False
6. All doctors are trained to recognize diseases caused by chemicals.
True False
7. Nausea and vomiting after responding to an accident may be caused by breathing toxic substances.
 True False
8. Watery eyes are one way the body tells you that a chemical may be toxic.
 True False

How, When, and Where?

Some participants may be surprised to learn that chemicals can be absorbed through the skin.

Emphasize that repeated exposures to a chemical may be more hazardous to your health than a single exposure due to chronic effects.

Use the figures in the participant guide to spark a discussion about what stressors participants are exposed to at work.

Stress that an absence of symptoms is not proof that no exposure occurred.

At the Scene

Good observations and reporting of what you sensed will help emergency responders respond to the emergency most effectively.

Before you leave the Scene

Make sure to tell someone if you think you have been exposed or contaminated.

After you have left the Scene

The more your health care professional knows about what you have been exposed to, the more effectively s/he can treat you.

Health Effects Exercise Again

Repeat the Health Effects Exercise at the end of this module. It should be evident that participants have learned new information.

Sizing-Up the Scene

The purpose of this activity is for participants to "pull together" the information previously covered. Participants will work in groups. Each group will receive the same basic information; however, additional information you provide will make each group's problem unique.

Time Requirement: 90 minutes

Number of Facilitators: 1 or more, consistent with ratio in Minimum Criteria

Materials

- Participant Guide
- Markerboard or equivalent; markers
- NIOSH Pocket Guide

Objectives

When complete, participants will be better able to:

- Recognize how different situations affect a hazardous materials incident response
- Identify what kind of information is needed for responders
- Describe how to pull together information to size up a scene

Teaching Methods

- Small-group activity

Suggested Facilitator Preparation

- Review the Participant Guide
- Prepare to discuss the Scenarios Exercise, which was completed earlier
- Prepare details for several scenarios in the Sizing-Up the Scene exercise (see map in Participant Guide)

Minimum Content Requirements

- Emergency Scenarios exercise (discussion of earlier exercise)
- Sizing-Up the Scene exercise

Questions you may be asked

Facilitators should be prepared to discuss variations on the incident. Participants will undoubtedly ask, "What if...?". Preparation for the many possibilities is very important.

Presentation of the Session

The session can be presented as follows:

Emergency Scenarios Exercise Discussion

This is discussion from the exercise which was completed earlier. It will serve to identify concepts which the participants have learned during the course.

Have a representative from each group read the answers to the class. Have all the answers to one scenario read by all groups who discussed it before moving on to the next scenario.

During the discussions, highlight that hazardous materials incidents happen in a variety of settings, more information is almost always needed before any action is taken, and incorrect actions could cause serious damage.

Sizing-Up the Scene Exercise

Preparation: Develop several unique scenarios by adjusting location of the crashed tanker (near the homes, near the creek, near the school, on the interstate), the DOT placard on the tanker (is it carrying a flammable or toxic chemical), is the tanker on fire, what are the weather conditions, are there nearby people and vehicles. Provide a unique scenario to each group.

- Divide the class into groups. Ask each group to select a representative for notes and report-back.
- Have the groups use the scenario and map found in the Participant Guide as well as the additional information you provide to discuss their scenario and answer the questions in the Participant Guide.
- After the scenarios have been discussed, call the class back together.
- Have a representative from each group describe the group's scenario to the class. This person should then read the group's answers to the questions. Each representative should present the group's scenario and responses before any discussion occurs.
- After all groups have presented their responses, conduct a class discussion. This discussion should focus on the following topics:
 - Every hazardous materials incident is different.
 - What initially may appear to be similar situations can in fact be very different.
 - It is important to gather as much specific information as possible to report to emergency responders.
 - The setting of an incident combines with the hazardous material(s) to create a variety of problems that emergency responders have to control.

Key Point - Sizing-Up the Scene

Emphasize that weather conditions, the people present, and the conditions at the scene combine to determine the hazards of the situation.

What Do I Do?

This section covers the steps that you should follow between the time when you have finished sizing-up the scene and when the emergency response team arrives.

Time Requirement: 45 minutes

Number of Facilitators: 1 or more, consistent with ratio in Minimum Criteria

Materials

- Participant Guide
- Markerboard or equivalent; markers
- NIOSH Pocket Guide
- Emergency Response Guidebook

Objectives

When complete, participants will be better able to:

- Identify the responsibilities of a first-on-the-scene responder
- Identify information that is relevant to provide after leaving the scene

Suggested Facilitator Preparation

- Review the Participant Guide
- Different groups will have different needs. Refer back to the list of hazards generated at the beginning of the course.

Minimum Content Requirements

Actions to take after sizing up the scene, when emergency responders arrive, and after the emergency

Questions you may be asked

- For contract programs, be prepared to inform the participants whom they should contact in their company if they discover an emergency.
- For open-enrollment programs, you can discuss general authorities to contact in case of emergency, including the Local Emergency Response Committee (LERC), if applicable.

Presentation of the Session

This session can be presented as follows:

After Sizing-Up the Scene Exercise

1. Have participants individually list information they would report when calling in.
2. Go around the room to ask each participant for a piece of information. Some people may think of something that nobody else thought of.
3. Compare responses of the class to the information listed on the following page in the participant Guide. What was left out?

Before the Emergency Responders Come

Emphasize that participants should not attempt to take any actions that they have not been trained for.

When Others Arrive

Emphasize the importance of reporting your observations to the Incident Commander, and to notify that person before leaving the scene.

When You Leave

If a report is requested by the incident commander, be sure to keep a copy for yourself.

Exercise - What Would You Tell Them When You Call?

The “What Would You Tell Them When You Call?” Exercise should be done individually. Participants should attempt to organize the information in some logical format. Facilitators should refer participants to the Participant Guide for the information that should have been included.

Exercise Answer Key

List the basic information you would report if you had to call in a hazardous materials incident.

- Who:** Who are you?
- What:** What has happened or is happening?
- Rail, highway, or fixed site
 - Shape of container
 - Placards/labels
 - Physical hazards
 - Wind direction
 - Others at risk—people in vicinity
 - Injured persons—conscious or unconscious
 - Drains, sewers, or surface waters
- When:** When did you get there?
- Where:** Where are you? Where is the scene?
- Residential area
 - Remote area

Answer Key for Review Questions - What Do I Do?

1. What are the elements of a complete call-in?
 - *Who*
 - *What*
 - *When*
 - *Where*

2. What are your responsibilities as a first-on-the-scene emergency responder?
 - *Notify appropriate personnel.*
 - *Return to scene to observe any changes (if necessary).*
 - *Maintain safe distance.*
 - *Keep up-to-date on what is happening at the scene.*
 - *Provide complete report to the highest-ranking officer who arrives.*
 - *Handle duties as assigned.*
 - *Get out of the way if you will not be involved with emergency response or site control.*
 - *Notify Incident Commander or recordkeeper before you leave.*

3. What information should you include in a write-up of the incident?
 - *Date and location of incident*
 - *Description of initial incident and sequence of events (Note times.)*
 - *People involved—victims, witnesses, other responders (names/addresses)*
 - *Actions you took (in time sequence)*
 - *Your concerns, if any*
 - *Any possible health effect you experienced*

Putting it all together

This section will help you to tie together the information that has been presented during this training program.

Time Requirement: 60 minutes

Number of Facilitators: 1 or more, consistent with ratio in Minimum Criteria

Materials

- Participant Guide
- Markerboard or equivalent; markers
- NIOSH Pocket Guide
- Emergency Response Guidebook

Objectives

When complete, participants will be better able to:

- Identify a correct response upon discovery of a hazardous materials incident scene
- Recognize how to protect themselves and others at a hazardous materials incident before emergency responders take control of the scene

Suggested Facilitator Preparation

- Review the Participant Guide

Minimum Content Requirements

Participate in the Exercise

Questions you may be asked

Facilitators should be prepared to discuss variations on the incident. Participants will undoubtedly ask, "What if...?". Thorough facilitator preparation for the many possibilities is very important.

Putting it all together exercise

- Divide the class into groups. Ask each group to select a representative to take notes and report-back.
- Have the groups use the scenario and map found in the Participant Guide to discuss the scenario and answer the questions in the Participant Guide. If desired, you can modify the scenario by changing the conditions (what chemical, weather, location, who else involved etc).
- After the scenario has been discussed, call the class back together. Have a representative from each group read the group's answers to the questions. Each representative should share before any class discussion occurs. Notes for the questions can be found below.

Questions

1. What are the potential hazards at the scene?

According to the placard, the truck contains triazine pesticide, which is liquid, flammable and toxic. According to the SDS, it is harmful if swallowed or inhaled, and can cause skin irritation and serious eye damage. When heated, it decomposes to produce toxic fumes. It may cause a hazard to fish and other water life. Wind is blowing fumes towards the interstate. The worst thing that could happen at this scene seems to be that motorists could suffer eye damage, resulting in auto accidents. Thunderstorms may wash the chemical into Tates Creek. The nearby gas pumps and tanks are also a concern. Other answers are possible.

2. What should you do?

You should call 911 and report the facts as stated in the scenario and in answer #1.

You should keep others away from the scene (upwind and as far away as possible).

If you can do so safely, you should get the driver away from the scene.

You should continue to observe the scene upwind (northwest) and as far away as possible.

3. What should you do when emergency responders arrive?

Give a complete report to the highest ranking officer. Follow that individual's instructions.

4. What should you do after you leave the scene?

Write a detailed report of the incident. Monitor yourself for any health effects and see your physician if necessary.

Closing and Evaluation

Time Requirement: 30 minutes
Number of Facilitators: 1 or more, consistent with ratio in Minimum Criteria

Materials

- Evaluation forms

Objectives

- Review program objectives
- Answer questions
- Collect evaluation forms

Minimum Content Requirements

- Evaluation
- Answer final questions
- Provide certificates for those who met the definition of successful completion; provide remediation according to Training Center and MWC policy for anyone who did not attend the entire program.

Question You May Be Asked

“How do I get more training?”

Provide your upcoming training schedule or reference other MWC members who provide the needed training.

Presentation of the Session

Review the Key Points from the program and facilitate a discussion on how to use the training.

This is an opportunity for final questions.

Evaluation is important to continued program improvement. This should not be rushed. Provide time to complete the program evaluation forms and collect them.