Acknowledgments

The Midwest Consortium developed this course for company managers, workers and residents who may be affected by the Hazardous Waste Operations and Emergency Response standard enforced by the Occupational Safety and Health Administration (OSHA) under cooperative agreement number U45 ES 06184 from the National Institute of Environmental Health Sciences.

We encourage you to comment on these materials. Please give any suggestions to your Program Director.

Warning

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Disclaimer

The Occupational Safety and Health Administration (OSHA) regulation to help ensure worker health and safety during hazardous waste site, work at treatment/storage/disposal facilities and emergency response activities requires specific training and other health and safety measures depending upon the duties to be performed. Knowledge about the requirements for each of these employment sectors enables an assessment of compliance. This awareness program does not replace training required by OSHA standards.

All web links are active as of March 3, 2023; if you find an error, please inform the facilitator so that it can be updated.
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OSHA and HAZWOPER - Overview

The Midwest Consortium developed this course for company managers, workers and residents who may be affected by the Hazardous Waste Operations and Emergency Response standard enforced by the Occupational Safety and Health Administration (OSHA). By following the outlined format and activities in this guide, you will be better able to enhance learning, stimulate participant discussion, and achieve the training objectives.

The program is designed to be tailored for the needs of participants. It is expected that 3 hours are needed for the program.

Breaks are not part of the training hours.

For each session, it is the responsibility of the training center staff to develop/assemble the following:

- Agenda and Lesson Plan (retain in program file)
- Supplemental Exercises (if used more than once, send to the MWC to be put into the standardized format and made available to other centers.)
- Sufficient electronic resources for participant use (as appropriate)
- Registration, sign-in and evaluation forms
The Midwest Consortium for Hazardous Waste Worker Training is devoted to professional instructor freedom while maintaining consistency of training. If you are a new trainer, the lead trainer at your center will provide assistance and initially will observe programs you facilitate. You may be asked to team-teach with an experienced trainer as you gain skills in MWC programs.

**Instructor Preparation**

Every facilitator should be familiar with the material in the Participant Guide and this Facilitator Guide. Review the OSHA website and HAZWOPER, 29 CFR 1910.120.

Carefully review the section(s) of the Facilitator Guide which correspond to the topics you are teaching before preparing your lesson. Lesson plan forms shown on the next two pages may be helpful when drafting your presentation outline.

**Agenda**

The following is a sample agenda:

- **Introduction**  15 minutes
- **OSHA**  1 ¼ hours
- **HAZWOPER**  1 ¼ hours
- **Closing and Evaluation**  15 minutes
## Lesson Plan Form 1

<table>
<thead>
<tr>
<th>Teaching Methods for This Lesson Plan (check each method you will use)</th>
<th>Audiovisual Requirements (check each that is needed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation</td>
<td>Training handbook</td>
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<td>Discussion</td>
<td>Supplemental handbook material</td>
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<tr>
<td>Question and answer</td>
<td>Websites:</td>
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<tr>
<td>Hands-on simulation</td>
<td></td>
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<tr>
<td>Team teaching</td>
<td>Whiteboard</td>
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<tr>
<td>Small-group exercises</td>
<td>Hands-on simulation</td>
</tr>
<tr>
<td>Case study</td>
<td>Other (describe):</td>
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<tr>
<td>Other (describe):</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Reference Materials (list all materials needed—paper or electronic)</th>
<th>Special Space or Facility Requirements (List any room size or special facility regulations here, such as set-up areas, equipment storage concerns, etc.)</th>
</tr>
</thead>
<tbody>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>Suggested Discussion Questions (think in advance what you might be asked, and prepare responses)</th>
<th>Suggested Instructor Preparation (consult with others as needed to improve preparation skills)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>
Lesson Plan Form 2 - use to organize your facilitation.

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

The instructional resources listed below may be useful in preparation and during the program.

3. ‘about NIOSH’ website, https://www.cdc.gov/niosh/about/default.html

Presentation of Material

Graphics and Audiovisuals

Photographs, sketches, charts, posters, short videos, and PowerPoint slides are useful training tools and may be introduced in the lesson where appropriate.

PowerPoint slides should be limited to those which support lesson presentation. Avoid using one-word slides, slides with term definitions, and slides as lecture outlines. These types of slides are not effective at keeping participant attention. Effective slides contain color graphics, questions, and short review lists.

Resources

Activities and Exercises

Small-Group Activities and Exercises

Small-group activities are incorporated, to involve participants in clarifying information, identifying options, and applying skills.

Participants may complete the activities or exercises on their own and share their results in class, or as small groups, with report back to the class.

Class activities and exercises enhance the learning process; therefore, it is strongly recommended that you make activities and 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 facilitating group activities and discussions include:

- Allow participants to freely express their values, attitudes, and opinions.
- Do not judge participant's responses.
- Facilitate discussion by paraphrasing and clarifying. It is seldom appropriate for the instructor to give opinions.
- Avoid putting people on the spot. Instead of asking individuals for answers, have a volunteer spokesperson present findings to the entire group.
- Keep the groups focused on the task at hand. Because small-group exercises can draw heavily on the participants' personal experience, sometimes 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 giving only cursory answers, ask them probing questions linked to 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 of the program is based on attendance, documented with the sign-in sheet.
OSHA and HAZWOPER - Introduction

Time Requirement:  
Presentation – 15 minutes
Discussion/Presentation

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

Materials

- Registration forms
- Open-space room which will allow for group discussion and small group activities
- Markerboard or equivalent; markers

Objectives for the Full Program

When completed, participants will be better able to:

- Describe employer and employee rights and responsibilities under OSHA
- Identify written health and safety plans or programs that are in place
- Describe the different kinds of operations and facilities covered by HAZWOPER
- Identify parts of the standard that apply to facilities where you work or near where you live
- Describe training and programs/plans that are required at worksites covered by HAZWOPER
During the brief introduction, the following will be accomplished:

- Introductions
- Registration
- Sign-in

**Teaching Methods**

The introduction combines presentation with discussion. It is important as an instructor to gauge the level of knowledge of the participants. A discussion of experience of each participant may be useful.

**Suggested Instructor Preparation**

- Identify needs of participants
- Prepare lesson plan
- Review lesson plan with any other facilitators

**Minimum Content Requirements**

- Introduction of facilitator(s), program, participants
- Complete registration forms (if not done in advance)
- Everyone signs in

**Questions You May be Asked**

1. Why don't more people know about this?
   
   This is an important opportunity for you to suggest that participants spread the word and perhaps brainstorm on how to do that.

2. How do I find more information on…?
   
   The internet and the local library are resources for researching. Use only trusted internet sources such as government websites. Avoid independent opinion blogs, newsletters, and unverified groups.

   Ask: has anyone asked an industry association for information or assistance?

3. Our employees all have rudimentary English skills but speak one of 5 other languages as the primary language. This is really a problem in terms of work rules.
Be prepared to facilitate a discussion of approaches, including working with the employees to identify one or two from each primary language group that have good English skills to be Health and Safety Champions, using graphics, bringing in translators.

Remind participants that training must be in a language understood by the participants.

Post any questions that will be answered later in the program to a ‘parking lot’ and display where everyone can see. Check the items off as the program progresses.

Presentation of the Session

The session can be presented as follows.

Introduction

Introduce facilitator(s) and provide needed orientation to the training space. Review MWC, NIEHS ‘model programs’ and uses of evaluation. Note that attendance is required for the duration of the program.

Turn to the Participant Guide. Briefly introduce HAZWOPER as an OSHA regulation and review the goals of the program:

- Describe employer and employee rights and responsibilities under OSHA
- Identify written health and safety plans or programs that are in place
- Describe the different kinds of operations and facilities covered by HAZWOPER
- Identify parts of the standard that apply to facilities where you work or near where you live
- Describe training and programs/plans that are required at worksites covered by HAZWOPER

Present the agenda that has been prepared, noting that training time does not include lunch or breaks. Post where all can see, if desired.

Ask participants to introduce themselves, describing experience and what each wants to gain from the session. Note any goals identified by participants that are not in the listing above - address any that may fit with the session materials and describe why remaining goals are outside the scope of this training.

Collect any forms and provide to program staff for retention.
The session is presented according to your lesson plan.

Time Requirement: 1 1/4 hours  
Number of Instructors: 1 or more, consistent with ratio shown in Minimum Criteria

**Materials**

- Whiteboard or equivalent; markers  
- Participant Guide  
- Technology shown in the lesson plan

**Objectives**

When completed, participants will be better able to:

- Describe employer and employee rights and responsibilities under OSHA  
- Identify written health and safety plans or programs that are in place
Teaching Methods

- Presentation/discussion
- Exercises - individual or small group
  - Participants from each employer may work together as a small group

Suggested Instructor Preparation

- Review the Participant Guide
- Review this guidance
- Identify if participants are covered by federal or state plans

Minimum Content Requirements

The following are minimum content objectives for the session:

- Rights and Responsibilities
  - Exercise: Rights and Responsibility Exercise, initially and revisited
- Hierarchy of Controls
  - Exercise: Programs and Plans

Questions You May be Asked

1. OSHA is really intrusive. Why can the government meddle in my business?

The short answer is that the Congress regulates interstate commerce, and virtually all businesses involve interstate commerce.

Background: Passage of the OSHAct followed decades of growing concern about loss of life and health at work. See:

- The Occupational Safety and Health Act at 50: an introduction. [link](https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2020.305623)
- The Occupational Safety and Health Act at 50: protecting workers in a changing economy. [link](https://ajph.aphapublications.org/doi/full/10.2105/AJPH.2020.305597)
• The Occupational Safety and Health Act at 50: labor perspective.  

  https://doi.org/10.2105/AJPH.2020.305624  PMID: 32267741.  This article is not ‘open access’.  Please work with your Program Director to obtain a copy through the library at your institution if you are not an APHA member.

OSHA inspection capacity is low; a ‘general schedule inspection (no complaint, no fatality) may occur every few decades!

2. Why do workers have all the rights?

Be prepared to facilitate a discussion about the number of rights that workers have. Is it to the employer’s advantage to have defined rights compared with ‘provide employment and a place of employment free from recognized hazards’?

**Presentation of Material**

The session can be presented as follows

**OSHA**

If you do not already know, determine if participants are covered by federal or state plan.

Ask: Is everyone here employed at a workplace covered by OSHA?
  Review workplaces that are not. Attempt to resolve ‘do not know’ responses.

Ask: Who has worked with OSHA?
  List the experience: inspection, consultation, complaint notification letter
  Inspection is the key activity that most about know OSHA.
  Review the other OSHA activities shown in the Participant Guide.
Exercise – Employer and Employee Rights and Responsibilities

Introduce the exercise shown in the Participant Guide. Ask participants to complete the 10 items.

Rights and Responsibilities

Review the Employer Rights and Responsibilities.

The general duty clause is broad and can be used to in preparing a citation if the hazard is recognized but there is no specific standard.

Review the Worker Rights and Responsibilities.

The review of worker rights and responsibilities could be quite ‘dry’ if presented as Power point. Consider asking small groups to read several of the summaries and report back: the right or responsibility, application to their workplace, experience with use by workers, barriers to use.

Exercise – Employer and Employee Rights and Responsibilities - revisited

Ask participants to look back at the answers provided earlier. Facilitate a discussion of ‘what was learned’. Discuss correct answers: 1, 2 F; 3, 4 T; 5 F; 6, 7 T; 8 F; 9, 10 T.

The Occupational Safety and Health Act also created the National Institute for Occupational Safety and Health (NIOSH).

Introduce NIOSH and turn to the Hierarchy of Controls in the Participant Guide. Facilitate a discussion about most effective to least effective.

Ask: who has implemented elimination/substitution?

Facilitate a discussion of responses.

Ask: who has implemented Engineering Controls?
Facilitate a discussion of responses.

Ask: who has implemented Administrative Controls?

Facilitate a discussion of responses.

Ask: who has implemented use of PPE?

Facilitate a discussion of responses.

Examples provided of successful implantation or barriers will be helpful to other participants.

Be prepared to illustrate the reasons that PPE is the least effective, including recurring cost to purchase, PPE failure, inspection/cleaning/repair charting and replacement, reliance on labor and management to ensure proper use.

For PPE written programs are needed. Use this as a way to transition to the importance of Administrative Controls. Like PPE, these are not one-time costs, if implemented as required.

**Exercise – What Programs, Plans and Procedures are in Place?**

As appropriate, conduct as a small group activity. During the report back, encourage participants to identify those where more information is needed.

Ask: Does the existence of a program equal and effective program? Facilitate a discussion of why frequent review and practice are needed; identify barriers to these processes.

**Summary**

The OSHAct created OSHA and NIOSH with very different functions.

Employers and workers have rights and responsibilities in workplace health and safety.

The hierarchy of controls illustrates the relative effectiveness of various approaches. Only elimination/substitution removes the hazard from the workplace. All other controls require diligence.
The session is presented according to your lesson plan.

Time Requirement: 1 1/4 hours
Number of Instructors: 1 or more, consistent with ratio shown in Minimum Criteria

Materials

- Whiteboard or equivalent; markers
- Participant Guide
- HAZWOPER, other OSHA standards as appropriate
- Technology shown in the lesson plan

Objectives

When completed, participants will be better able to:

- Describe the different kinds of operations and facilities covered by HAZWOPER
- Identify parts of the standard that apply to facilities where you work or near where you live
- Describe training and programs/plans that are required at worksites covered by HAZWOPER
Teaching Methods

- Presentation/discussion
- Exercises - individual or small group

Suggested Instructor Preparation

- Review the Participant Guide
- Review this guidance
- Prepare lists of training and plans in HAZWOPER for the sector to be trained

Minimum Content Requirements

The following are minimum content objectives for the session:

- Three major work sectors covered by HAZWOPER
- Exercise: Explore HAZWOPER training or plan requirements

Questions You May Be Asked

1. Our training provider does an 8-hour technician program. Is that OK?

Be prepared to facilitate a discussion of the competencies in the technician list.

Ask: can those competencies be met in 8 hours?

Also, refer to the phrase ‘the employer shall so certify’. Training providers do not certify; a certificate of successful completion is provided to support the employer responsibility.

You may refer this to your Program Director for follow up with the company. The participant may be confusing initial and refresher training, or the observation may be correct.

2. I only have 15 employees. We cannot possibly keep up.

Be prepared to facilitate a discussion of resources—industry or business groups may have model plans and programs to follow, and examples of costs of various approaches. Many state universities have Industrial Services groups that can assist employers with technical and compliance issues. The OSHA Consultation program that is separate from the enforcement branch is also available to offer guidance; see https://www.osha.gov/consultation.
Presentation of the Session

The session can be presented as follows:

HAZWOPER

Review the acronym: HAZWOPER.

Turn to the Participant Guide description of the three employment sectors covered.

Ask: who has used the OSHA standards to find requirements?

It is likely that most participants may be familiar with the system shown in the figure to locate standards. Refer to it as review or an introduction. Then specify the paragraphs that apply to each of the employment sectors.

Illustrate that 29 CFR 1910.120 references other OSHA standards.

With the discussion, identify the employment sector or area of interest of each participant.

Exercise – Explore HAZWOPER

Introduce the exercise as shown in the Participant Guide. Give small groups 20 minutes to complete the worksheet and then facilitate a report back and discussion for 15 minutes.

Summary

HAZWOPER (29 CFR 1910.120) covers workers at hazardous waste sites, at treatment/storage/disposal facilities, and those engaged in a wide range of jobs that include emergency response activities.

Included in HAZWOPER are other OSHA standards that are relevant to the work conducted in these workplaces or worksites.

Plans and procedures are required for work covered by HAZWOPER; specific training must be provided to the workers.
Closing and Program Evaluation

Time Requirement: 15 minutes
Number of Instructors: 1 or more, consistent with ratio shown in Minimum Criteria

Materials
- Whiteboard or equivalent; markers
- Evaluation forms

Objectives
- Review program objectives (overall and for the exercise used)
- Answer questions
- Collect feedback (evaluation forms)

Teaching Methods
- Discussion
Suggested Instructor Preparation

- Ensure you have evaluation forms prior to the program.

Minimum Content Requirements

The following are minimum content requirements for the section:

- Evaluation
- Answer last questions, including anything remaining in the parking lot
- 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.

Questions You May Be Asked

1. “How do I get more training?”.

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

Presentation of the Session

Thank participants for attending the program.

Review the goals of the program.

This is an opportunity for final questions and to ensure that the list of questions has been addressed during the program.

Evaluation is important to continued program improvement. This should not be rushed. Provide 15 minutes to complete the program evaluation forms and collect them.